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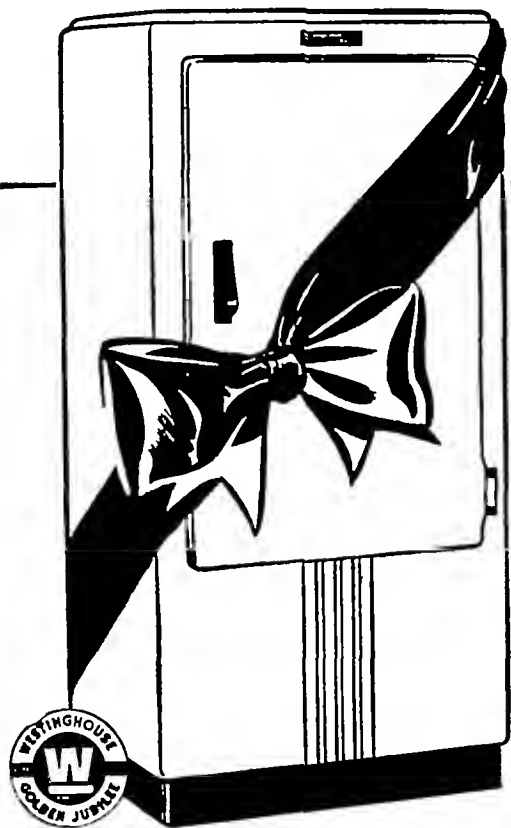
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**INFILTRATION ANESTHESIA IN VAGINAL
PLASTIC OPERATIONS**HARVEY B. MATTHEWS, M.D., F.A.C.S., and
VINCENT P. MAZZOLA, M.D., F.A.C.S., Brooklyn*From the Department of Obstetrics and Gynecology, Long Island College Hospital*

In attempting to prevent the tragic surgical accidents which at times inevitably occur, the matter of the selection of anesthesia is an important factor. This is especially true in gynecology since a great number of operations are elective procedures. In the presence of medical complications such as heart trouble, kidney trouble, hypertension, diabetes, and respiratory infections, inhalation anesthetics are often contraindicated. For imperative surgery in these cases, local anesthesia has been employed and has proven to be much less dangerous. It follows therefore that such anesthesia should be safe for individuals in good physical condition. Furthermore, it is a well-known fact that a general anesthesia is far from being perfectly safe in all cases. The works of Bartlett and Simmons,⁴ Thornton,²⁰ Kaye,¹⁰ Rollison,²² and many others, substantiates this fact. Prolonged anesthesia predisposes to shock, acidosis, dehydration, and liver damage. With these dangers associated with general anesthesia, a number of surgeons advocate the use of spinal anesthesia. While this type of anesthesia has its adherents, notably Cooke,⁸ Bower, Clark, and Burns,⁵ Babcock,³ and Rapoport,²⁰ the dangers from its use are greater than

that for general anesthesia. Postoperative complications have been reported by Brown and Debenham,² Arnheim and Mage.²

A more detailed study of the various anesthetics for surgical procedures reveals the fact that local anesthesia is safer than inhalation narcosis. Of the various types of regional anesthesia employed, infiltration is the simplest and safest. While this form of narcosis has been used by Reclus²¹ in France, and Schleich²⁴ and Braun⁶ in Germany, and in this country by Hertzler¹⁴ and Allen¹ infiltration anesthesia did not make much progress in gynecology in the United States until Gellhorn¹² reported extensive plastic work, including vaginal hysterectomy, under local anesthesia. His work has stimulated considerable interest in this subject. Later, reports by Greenhill,¹³ Falls,¹⁰ and Davis⁹ have added much to point out the advantages of local anesthesia in gynecology and confirm the results of earlier reports (Ruge²³ and Farr¹¹).

Bearing these facts in mind, we have been gradually extending the use of local infiltration anesthesia in our gynecological work. It is, therefore, the purpose of this paper to report the results of 780 gynecologic plastic operations

performed on 443 cases, under infiltration anesthesia from 1925 to 1935 on the gynecological service of the Long Island College Hospital*. These procedures are listed separately but more than one procedure was usually carried out during the operation, for example, dilatation and curettage, amputation of the cervix, anterior colporrhaphy, perineorrhaphy and / or other combined procedures

made by the operator. There should always be a sympathetic anesthetist, armed with proper equipment, standing by to encourage the patient if she is uneasy. The patient should be made as comfortable as possible during the operation.

It is important to note at this time that sensations about the vaginal tract differ as to acuteness. In all of the external parts and the lower third of the vaginal tract sensation is very acute

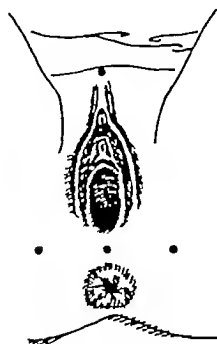


Fig 1 Infiltration for towel clips

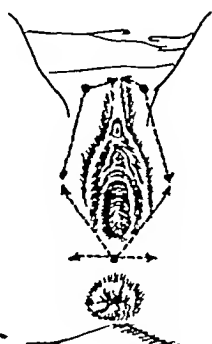


Fig 2 Infiltration for vaginal outlet including labia majora

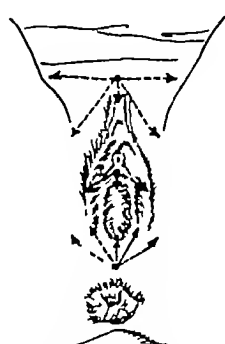


Fig 3 Infiltration for vulvectomy

Technic

The routine preoperative preparation for vaginal infiltration anesthesia is as follows. The evening preceding operation, the patient is given one tablet of veronal (seven and one-half grains) to secure a good night's sleep. In the morning she is given (two hours before operation) one fourth grain of morphine and 1/200 grain of scopolamine. One-sixth or one-eighth of a grain of morphine and 1/200 grain of scopolamine are administered one half hour before the operation. The second dose of morphine may sometimes be eliminated and the scopolamine given alone. This depends upon the individual patient. It is also well to keep the patient in a dark room and as quiet as possible. During the operative procedure there should be absolute quiet except for an occasional remark of encouragement.

*We wish at this juncture to express our keen appreciation to Drs. Wm. A. Jewett and Geo. W. Phelan for the use of cases from their respective services, as well as to all others on our Staff who contributed cases.

Hence Ruge and Farr suggested anesthetizing the entire vulvar circumference in pelvic procedures (Fig 2). The vault and upper parts of the vagina have very little sensation. The cervix and uterus are not very sensitive to incisions, volsellum forceps, or needle punctures, but are quite sensitive to stretching, as in dilatation of the cervix. Also, the mucosa of the cervix and the endometrium of the uterine cavity have very little sensation, but will not stand a thorough curettage without anesthesia. The same may be said of the peritoneal investment of the uterus, which should not be incised without some infiltration.

For the local infiltration anesthetic we have used one per cent novocain in all operations. Solutions of 0.5 and 0.25 per cent have been used with good results as reported by Gellhorn¹². Since we originally started with one per cent, we have continued to use this strength so that our technic is uniform. However since the weaker solutions produce the same effects, it might be advisable to use them

To each thirty c.c. (1 oz.) of the anesthetic solution to be used is added two drops of 1:1000 epinephrine. The quantity of solution used depends on the nature and extent of the operative procedure. Usually not more than 120 to 150 c.c. (4 to 5 ozs.) of solution is necessary for the most extensive vaginal procedure.

The description of the technic for the various vaginal operations is as follows:

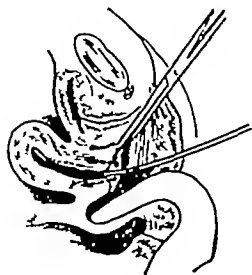


Fig 4 Infiltration for dilatation and curettage

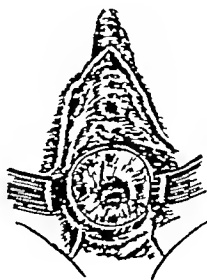


Fig 5 Infiltration for operations on cervix.

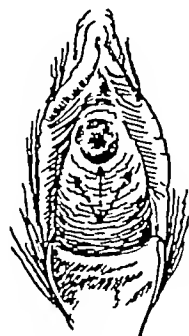


Fig 6 Infiltration for urethrocele

Operations on external vaginal outlet We have done twenty-six operations in this group (Table III-A).

A median point on the mucocutaneous junction of the perineum is anesthetized intradermally. This is extended to a point midway between the anus and vaginal outlet. Using this point as a station the vulva is anesthetized laterally. A crescent-like injection is made from above, which meets the lower field. It is started preferably over the external ring of the inguinal canal on each side, making the injection fairly deep and liberal at this point to thoroughly block all fibers of the ilio-inguinal and genitocrural nerves, as they emerge from this opening to be distributed to the tissues of the labia majora (Fig 1, 2, and 3).

Perineum and posterior vaginal wall A point on the perineum midway between the anus and vaginal outlet is anesthetized intradermally. This establishes a station through which the long needle is entered. In the event of an extensive laceration extending up to or including the sphincter ani, this point can be made just within the vaginal outlet (Fig 1, 10, and 11).

The long needle is entered here and passed up in the middle line, injecting as it is advanced as far as the contemplated field of operation. About ten c.c. of solution is needed. If the plane is quite thick it is

best to pass the needle well below the vaginal mucosa in the deeper planes, as the solution can better diffuse in these deeper tissues. However, when dealing with an extensive laceration with rectocele, where the rectum and vaginal mucosa are in close contact, the needle should be passed just beneath the vaginal mucosa. By injecting the solution as the needle is advanced, the solution separates the plane of tissue and there is less danger of the needle puncturing the rectum.

Having made the midline injection, the needle is partially withdrawn and directed slightly laterally and upward first on one side and then on the other, using in each an additional five or ten c.c., depending upon the extent of the field. Similarly, a third or fourth injection can be made just lateral to the preceding until practically the entire vaginal canal except the roof has been infiltrated. A crescentic-like injection, made subcutaneously with a long needle around the vaginal outlet and carried up on each side the full extent of the field, completes the anesthetizing process.

If a perineorrhaphy is to be done, and the tear involves the sphincter, the anal canal must then be anesthetized. This is accomplished by making four injections around the lower bowel and into the sphincter. This should be followed by dilatation of the anus which will assist in diffusing the solution into the various layers. This method of injection gives a perfect anesthesia and facilitates the operation through the separation of the different planes of tissues by the injected solution (Fig 11).

Anterior wall operations Of this group, we have done 304 operations (Table III-B). A point on the cervix is infiltrated and then grasped by a volsellum and pulled down. With the cervix well down and on the stretch, the submucous tissues between the

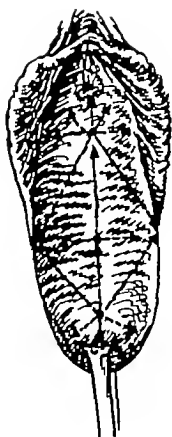


Fig 7 Infiltration for anterior colporrhaphy



Fig 8 Infiltration of bases of broad ligaments

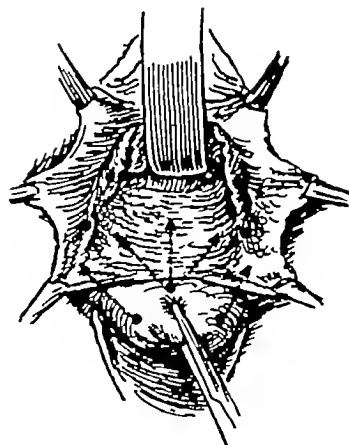


Fig 9 Infiltration of bases of broad ligaments

cervix and urethral opening are well-infiltrated (Fig 7), carrying the infiltration well out laterally to permit free exposure of the deep fascia in the subsequent dissections (Fig 6 and 7)

Cervix operations Of this group we have done 143 operations (Table III-C). The cervix is anesthetized by drawing it down with the volsellum and making a free sub-mucous infiltration around its neck, and at the junction with the vaginal vault. In making this injection in front care should be exercised not to injure the bladder. A long needle is used. This is directed up in the long axis of the cervix on each side, just within the cervical tissues, to a depth of from two and one-half to five cm (1 to 2 inches) injecting as the needle is advanced.

In a few minutes a fair degree of dilatation can be done without pain, when curettage, trachelorrhaphy, excision or amputation of the cervix can be performed. It is to be noted here that thorough curettage of the body of the uterus is not very satisfactory under local anesthesia but a

limited curettement is very well-tolerated after the above injections (Fig 4 and 5)

Vaginal hysterectomy The perineum and cervix are anesthetized as described above. A long needle is introduced to one side of the cervix to the depth of four to five cm ($1\frac{1}{2}$ to 2 in). The needle is directed in a somewhat lateral direction, in order to strike the nerve trunks before they have undergone their ultimate division. The needle is introduced slowly and carefully so that the blood vessels and perhaps any coils of intestines with which it may come in contact will not be unduly injured. After the needle has been satisfactorily introduced more solution is injected as the needle is withdrawn. Do not be "stingy" with the anesthetizing solution. This process is repeated on the opposite side. Injections are also made on the anterior and posterior walls. In the anterior wall, injections are made similar to those described above for operations on the anterior wall. For the posterior wall, injections are made just through the mucosa. The bladder is first freed from the anterior wall of the uterus



Fig 10 Infiltration for posterior colporrhaphy



Fig 11 Infiltration for complete laceration of perineum

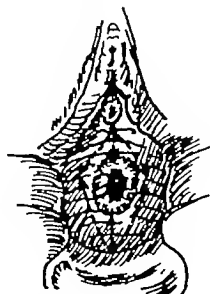


Fig 12 Infiltration for vesicovaginal fistula.



Fig 13 Infiltration for recto-vaginal fistula

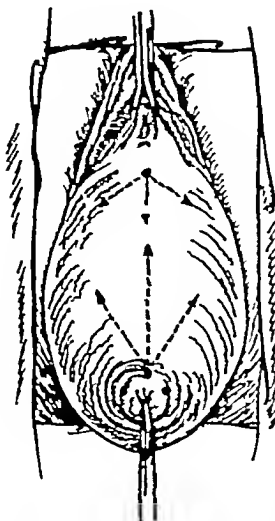


Fig 14 Infiltration for Le Fort operation (anterior)

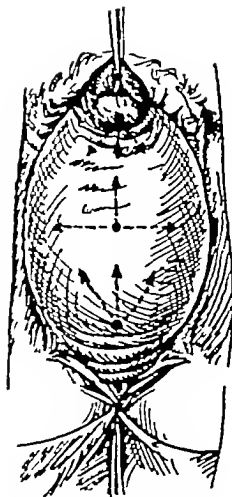


Fig 15 Infiltration for Le Fort operation (posterior)

When the peritoneal reflection is reached injections are made before opening the peritoneum. Then with the finger in the peritoneal cavity as a guide, the broad ligaments can be infiltrated. About thirty cc or more of novocain are injected on either side. The marked blanching of all the tissues which have been injected guarantees not only painless but also bloodless operating (Fig 5, 7, 8, 9, and 10). In this series we had six cases (Table III-D).

Interposition and Fothergill operation. The same technic is employed here as for anterior colporrhaphy. In addition the vesicouterine fold is exposed behind the bladder and injected before being incised. The visceral peritoneum of the anterior uterine wall is infiltrated before being grasped by the Allis forceps to bring the fundus forward (Fig 8 and 9). We have done ten interposition operations, twenty-six Fothergill operations with amputation of the cervix, and

two modified Fothergill operations without amputation of the cervix (Table III-D).

Vaginal hysterotomy. We have had three cases in this group (Table III-D). The anterior and posterior walls and cervix are infiltrated as described above (Fig 5, 7, 10). Then the bladder is separated from the anterior surface of the uterus. The cervix is cut after making injections of the anterior lip and to the right and left of the midline. Further injections are then made on the anterior wall of the uterus and the incision is carried upwards (Fig 16).

Vesicovaginal fistula. Two cases were done (Table III-B). Infiltration of the vaginal mucosa and the bladder wall up to the submucosa. The area can be excised and sutured without pain (Fig 12).

Rectovaginal fistula. Infiltration of vaginal mucosa and the rectal wall up to the submucosa (Fig 13). Generally fistula cases are best done under some other

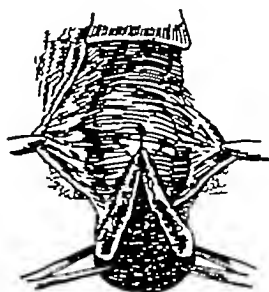
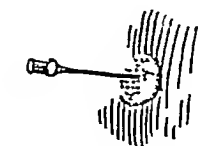
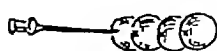


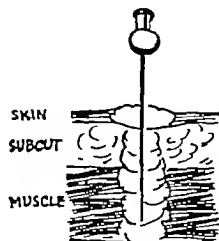
Fig 16 Infiltration for anterior vaginal hysterotomy



INTRADERMAL WHEEL



CUTANEOUS INFILTRATION



INFILTRATION OF SKIN AND MUSCLE

Fig 17 Technic of infiltration.

TABLE I—ANESTHETICS USED FOR VAGINAL PLASTICS
1925-1935

Anesthetic	No of Cases	Per Cent
Ether	634	15.7
Nitrous Oxide	2 849	70.9
Local Infiltration	443	11
Chloroform	32	2.4
Ethylene	30	
Spinal	11	
Caudal	3	
Avertin	2	
Evipal	13	
Total	4 017	100

TABLE II—COMPARISON OF GENERAL AND LOCAL ANESTHESIA
1925-1935

Anesthetic	No of Cases	Per Cent
Ether	634	16.14
Nitrous Oxide	2 849	72.56
Local Infiltration	443	11.3
Total	3 926	100

TABLE III—GYNECOLOGICAL OPERATIONS PERFORMED UNDER INFILTRATION ANESTHESIA

A EXTERNAL GENITALIA 26 CASES		
Biopsy of vulva		3
Excision of labial cyst		3
Removal of Bartholin gland		6
Removal of varicosity of vulva		1
Vulvectomy		2
Fulguration of Skene's ducts		5
Removal of urethral caruncle		6
B VAGINA 304 CASES		
Kelly repair of urethra		30
Anterior colporrhaphy		88
Posterior colporrhaphy		174
Repair of third degree laceration		3
Repair of vesicovaginal fistula		2
Repair of rectovaginal fistula		3
Perineostomy		2
Posterior colpotomy		2
C CERVIX 143 CASES		
Removal of cervical polyp		18
Biopsy of cervix		20
Cauterization of cervix		44
Trachelorrhaphy		6
Excision of cervix		20
Amputation of cervix		35
D UTERUS 307 CASES		
Dilatation of cruettement		165
Insertion of Radium		85
Fothergill operation with amputation of cervix		26
Fothergill operation without amputation of cervix		2
LeFort operation		5
Watkins-Wertheim Interposition Operation		10
Vaginal myomectomy		5
Vaginal hysterotomy		3
Vaginal hysterectomy		6
E SUMMARY		
External genitalia		26
Vagina		304
Cervix		143
Uterus		307
Total operations		780
Total cases		443

type of anesthesia, especially where operation has previously been performed

The female urethra is easily anesthetized by a film of cotton placed around the end of a probe and saturated with a five or ten per cent solution of novocain passed into the urethra and allowed to remain a few minutes

Caruncles are easily extirpated by infiltrating around and beneath them. The surface can be swabbed with a ten per cent solution for a few minutes at the point where the needle is to enter. Within a few moments the growth can be painlessly removed

It is important to note that in operating on the cervix and uterus, the pulling down of these parts to the vaginal outlet is attended with some discomfort, and should not be attempted where they are bound down by adhesions or fixed in the abdominal cavity. On the contrary, in cases where these parts are well-relaxed and freely movable, operation can be quite satisfactorily undertaken

The Le Fort operation for complete prolapse was performed on five cases (Fig 14 and 15) (Table III-D)

Results

Table I shows the various types of anesthesia used for vaginal plastic operations between 1925 and 1935. There were 4017 cases in all. The greatest number were done with nitrous oxide narcosis, 2849 cases or 70.9 per cent. Ether followed with 634 cases or 15.7 per cent, and local infiltration with 443 cases or 11 per cent. Other anesthetics were employed in ninety-one cases or 2.4 per cent. In this connection it should be kept in mind that it has been only within the past three years that local anesthesia has become popular with some of us. Chart I shows graphically the trend in our clinic

Table II gives a comparison of general and local anesthesia during this same period. There were 3926 cases. Ether was used in 634 cases or 16.14 per cent. Nitrous oxide was employed in 2849 cases or 72.56 per cent and local infiltration was used in 443 cases or 11.3 per cent. The apparent discrepancies in percentages in this table are due to the fact that the total number of cases is different from those in Table I

Table III gives a list of vaginal operations performed in this series. There

pressions, it is fair to state that each patient was then recorded as a new case under a new therapy, and microscopic and cultural examinations were repeated in detail. This procedure was followed in each case whenever the method of treatment was changed and accounts for the small number of cures compared with the total number of patients seen and treated. This protracted method of trial and error before arriving at the desired result in many cases, probably explains the failure of some patients to return to the clinic. However, so far as the choice of the best treatment is concerned, this proved an excellent way to demonstrate clinically the advantages and disadvantages of different methods now in common use.

Oral and injection treatments. The next method was suggested by the fact that the organism is a protozoan, and that the value of arsenic for its destruction is established. Sodium arsenate, one per cent in phenol, was administered three times a week intramuscularly, beginning with three minims and gradually increasing it to fifteen minims. Such a course required about one month, during which time weekly local examinations were made, with extremely disappointing results. There was no change in the patient's symptomatology and the organism remained active and vigorous. The associated organisms also remained unaffected.

In another twenty-five cases arsenic in the form of neoarsphenamine 5 grams and mapharsan 45 grams were given intramuscularly at weekly intervals. This method was tried because such striking results follow the use of salvarsan in cases of Vincent's angina. The end results after this form of medication were also disappointing, and toxic symptoms developed in too many instances to warrant its use for such a condition. There was no change in the activity of the trichomonads, in the patients' symptoms, or in the associated bacteria. Bismuth ten per cent in peanut oil as used in the Syphilitic Clinic at the Post-Graduate Hospital, was also given twice a week intramuscularly in these cases without any appreciable result.

Arsenic was further tried by oral administration in the form of Fowler's solution, given over a period of one month and in the usual dosage, but without any effect.

Recalling the recent outbreak of amebic dysentery and the favorable results following the oral administration of arsenic in the form of acetarsone and carbarsone in three and two grain capsules given three times daily for a period of ten days, this method was tried in a few cases. When no effects

were noted after the first course of treatment, additional doses were given. No alteration in local or cultural findings occurred, and since toxic symptoms appeared it was deemed advisable to discontinue treatment.

Local treatments with solutions. Innumerable varieties of local vaginal therapy have become popular during the past few years. It would be futile to review them all. Suffice it to say that most of them include a thorough cleansing of the vulva and vaginal mucous membrane, too often carried to the extreme of *unnecessary trauma*, which not only does not aid in the cure, but even *lowers the resistance of the tissues*.

In one series of cases the effect of mercury oxycyanide, 1:4000, was tried. It was used as a vaginal irrigation and instillation without apparent effect on the trichomonads, even after two weeks of treatment, and was then considered ineffective, as a trichomonocide. In other series merthiolate, 1:10,000, potassium permanganate 1:4000, clymacol 1:10,000, bichloride of mercury 1:2000—were all used as vaginal irrigations and instillations, giving the same number of treatments and with the same unsatisfactory results.

Vaginal treatments with powder and bladder instillation. Quinine in different form has been widely used and I tried it also. I had previously used it in a solution of quinine dihydrochloride one per cent, fifty c.c. as a vaginal packing and fifty c.c. as a bladder instillation. Fair results were obtained in these cases and since quinine is considered a parasitic poison, it was further tried in powder form as quinine sulphate. In all of these cases vigorous scrubbing of the vulva or vagina was omitted, all applications being made as gently as possible.

After irrigating and dilating the vagina with an occluding vaginal syringe and with plain tap water, the cervix and vaginal vault were carefully and gently dried with cotton. The vagina was then dilated and insufflated with quinine sulphate grs. XII using a Powdex vaginal insufflator. These treatments were given three times a week for two weeks. As in all other cases, a high power examination was made at the time of the last visit and weekly thereafter for three months before any patient was considered cured. If the organism was found at the last visit, she was considered still infected, and if not found then but within three months, the infection was regarded as recurrent. The foci not having been found, the same treatment was repeated with the addition of a fifty c.c. instillation of quinine dihydrochloride one

per cent in the bladder. In the first group of forty-five cases in which quinine sulphate grs XII in powdered form was used in the vagina without bladder treatment, fourteen (31 per cent) were cured, and thirty-one (69 per cent) were failures. In the second series of thirty-seven cases receiving both vaginal and bladder treatment with quinine, thirteen (35 per cent) were cured and twenty-four (65 per cent) remained infected. The conclusion was justified that quinine sulphate was not an effective trichomonocide. I also found that the patient was not relieved symptomatically as quickly as after the use of other medicaments, and that occasionally patients were sensitive to quinine either locally or constitutionally. A few patients developed small vaginal ulcerations or a cystitis which I attributed to the quinine.

Using the same technic, acetarsone, grs XV was insufflated and the bladder left untreated. In twenty-seven such cases there were fifteen (55 per cent) cures and twelve (45 per cent) failures. In another series, using acetarsone, fifteen grs in the vagina as an insufflation and ten grs in the bladder as an instillation, there were thirty-seven cases, of which twenty-six (70 per cent) were cured and eleven (30 per cent) failures.

In still another group of cases, I used arsenic grs XV in the form of cinquarsen, a pentavalent arsenic compound. There were twenty-five patients treated, with twenty-one (84 per cent) cures and four failures (16 per cent). In fifty-five cases cinquarsen, grs XV was used as a vaginal insufflation and cinquarsen grs VII ss or fifty c.c. of a one per cent solution, were instilled in the bladder. Fifty-three (96 per cent) were cured with two failures.

Blood chemistry. Because of the signs of toxicity after the use of quinine in the vagina and bladder, probably due to absorption and the patient's idiosyncrasy to quinine, the patients under treatment with cinquarsen were closely observed for such signs of toxicity as itching, acne, urinary complaints, and albumen or casts. As a further precaution, chemical blood analyses were made with the patient on an arsenic-free diet. The bio-chemistry department of the Post-Graduate Hospital made these analyses, using twenty to thirty c.c. of blood taken two days after the last treatment was given. The results of these tests estimating the arsenic in the blood ran from 0.2 to 0.8 mgs per one hundred c.c. of blood, an average of 0.43 mgs.

Relief of symptoms immediate. I found that cinquarsen in combination with an acid diluent afforded almost immediate relief of symptoms, particularly the foul discharge,

burning, and pruritus. This is probably due to a change in the pH of the vaginal secretion to more closely approach that of the normal, as the use of sodium bicarbonate as an alkaline medium did not allow such immediate symptomatic relief. I also believe that the endocervical glands, as well as the urethra or bladder, are likely sources of reinfection. I noticed that in twenty-five cases in which a primary cure had been affected, as well as some other cases in which routine high power examinations were negative on several visits, reinfection with trichomonads followed treatment of the cervix, such as cauterization or conization. After that I treated any coexisting disease of the cervix at the second and third visit, using a local anesthetic and cauterizing the canal and portio.

Due to the well-known clinical fact that the trichomonads become markedly activated immediately before, during, and after menstruation, and the cultural fact that human whole blood stimulates its development, all patients were treated regularly throughout the menstrual period if it occurred during a course of therapy.

To prove that the usual diluent in powdered mixtures and the popular douche medicaments were ineffective as trichomonocides, they were used alone in a number of cases. Sodium bicarbonate, boric acid, salicylic acid, zinc oxide, and sodium perborate were used as powder insufflations. Mercuric oxycyanide, potassium permanganate, sodium perborate, and bichloride of mercury were used as douches and instillations without benefit to the patients.

The bladder is often ignored as a possible focus of infection and is not treated. The seriousness of a trichomonas infection is frequently underestimated and treatment is carried out in a haphazard manner. Likewise, the husband is neglected as another focus of reinfection, as intercourse has not always been deemed a probable means of transmission. These factors, when considered collectively, are the chief causes of unsatisfactory results after treatment, and have a distinct bearing on the so-called "recurrent case." A totally different regime was therefore selected to discover the most effective medicament.

The results of treatment and the cures cited in this paper include only those cases free from symptoms and from the trichomonads throughout a three month period after treatment was discontinued. Many of these cures have been proved to be of four, five, six, eight, ten, and twelve months duration.

The treatment was confined to vaginal therapy for the first series. Each patient

was examined and treated three times a week for two weeks and returned for a check-up in one week, if still positive, a new course of treatment was begun, and if during that time trichomonads were found in the urine, the bladder was treated locally, however, if the urine examination was negative and the patient returned with the parasite still in the vagina, she was given six more vaginal treatments and the bladder was treated as well

Summary

1 A detailed personal history and a careful physical examination may reveal some causes other than the trichomonads to account for vaginal symptoms, urinary complaints, and nervous systemic disturbances, or menstrual irregularities

2 A routine high power examination of the vaginal secretion in all gynecological cases can establish the presence of *Trichomonas vaginalis* before extensive pathologic changes develop

3 The trichomonads will not always be demonstrable in the catheterized specimen of urine under high power examination, even though the urethra or bladder may be an additional site of infection

4 The majority of cases treated properly, consistently, carefully, and gently by vaginal dilatation, irrigation, and insufflation with a dry arsenical powder, in order to medicate the entire vaginal vault and cervix, three times a week for two weeks, can be permanently cured

5 Urethral or bladder involvement occurs in about twenty per cent of all cases and will cause the recurrence of vaginitis usually within one month, but the patient can be cured by another course of vaginal therapy, accompanied by bladder treatment

6 A few cases will require a second course of treatments three times a week for three weeks, and still a fewer number will need a daily treatment for two to three weeks. This is explained by the patient's lowered resistance to this particular infection, or to the high virulence of the strain of trichomonads harbored by the patient.

7 It is possible for operative procedures on the cervix to light up a dormant *Trichomonas vaginalis* vaginitis. For this reason the cervix should be treated early during the active treatment of

the trichomonas infection

8 If the menstrual period should occur during a course of treatment, the treatments should not be discontinued

9 Intercourse should be interdicted during a course of treatment

10 Other members of the family, especially the husband, must be examined in all cases of recurrence or reinfection

11 A careful follow-up of each patient must be made weekly for at least one month after the last treatment, and immediately following the menstrual period for at least three months, before a cure should be considered permanent

Conclusions

1 The *Trichomonas vaginalis*, a flagellate described by Donne in 1836, is found in the vaginal secretions of patients complaining of local and general symptoms definitely related to this organism

2 The trichomonads can be seen microscopically in a suspension in normal saline under high power dry magnification

3 The trichomonads can often be demonstrated in a catheterized specimen of urine from a patient suffering from vaginitis

4 The trichomonads may be demonstrated in the prostatic fluid of the male partner of the woman infected with the organism

5 The trichomonads may be demonstrated in the female members of the same family

6 The trichomonads are not dependent upon any one coexisting organism to produce the lesions seen in this condition

7 The other organisms present in the vaginal secretions with the trichomonads are the same before treatment as after the trichomonads have been eliminated

8 Enough conclusive evidence has been presented by many investigators to prove beyond doubt the pathogenicity of the *Trichomonas vaginalis* vaginitis

9 Elimination of the trichomonads from the vaginal flora will free the patient of the irritating vaginal discharge, itching or burning, urinary complaints will subside unless there is an associated chronic pyelitis, the menstrual cycle will become more normal, fatigue, nervousness, irritability, emotionalism, and pelvic

discomfort will disappear and the patient will again have a sense of well-being

10 In the female, the cervix, urethra, and bladder, and in the male the urethra, the bladder, and the prostate may be considered foci which account for the recurrence or reinfection in a number of female patients. The uterus and the rectum are not factors in reinfection or recurrence

11 The vaginal infection must be treated with a medicament which must be a protoplasmic poison, must have local penetrative power, and must be kept in close approximation with the vaginal mucous membrane in a dry medium for a

long period of time. The best medication found in this series having these properties was cinquarsen in conjunction with boric acid, and a suitable diluent to give body and to aid in its dissemination over the mucous membrane surface

12 The cervix must be treated in all cases and the bladder treated in all reinfecting recurrent cases

13 *Trichomonas vaginalis vaginitis* is a pathological condition caused by the flagellate, named by the French investigator Donne and is curable if observed, evaluated, and treated properly

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References

- 1 Donne A *Compt rend Acad D Sc* 3 385, 1836
- 2 Koelliker and Scanzoni *Beitr z Geburtsh u Gynaek* 2 131, 1855
- 3 Marchand, F *Centralbl f Bakteriol* 15 709, 1894
- 4 Muira K. *Ibid* 16 67 1894
- 5 Künstler, J *J Micrographie* 8 317 1884
- 6 Dock, G *Am J M Sc* 111 1, 1896
- 7 Lynch K M *Am J Trop Dis* 2 627 1914-1915
- 8 Hanghouth F G *Philippine J Sc* (sec. B) 13 217 1918
- 9 Haupt Walther *München med Wchnschr*, 71 204, 1924
- 10 Schmidt A L and Kamniker H *Arch f Gynaek* 127 362 1925-1926
- 11 Lewis B and Carroll, G *J Urol*, 19 337 1928
- 12 Sayer, J H *Northwest Med* 30 278 1931
- 13 Maxwell, E J *New England J Med*, 211 567, 1934
- 14 Wahlén O S *Acta dermat-venereol* 15 243, 1934
- 15 Riba L. W *J.A.M.A.*, 96 2100 1931
- 16 May F *Ztschr f urol Chir* 35 213, 1932
- 17 Stuhler, L. G *Proc Staff Meet, Mayo Clinic*, 3 211 1933
- 18 Stein, I F and Cope, E. J *Am J Obst & Gynec* 25 819, 1933
- 19 Bland P B, Goldstein, L., and Wenrich, D H *J.A.M.A.* 96 157, 1931
- 20 Andrews M N *J Trop Med*, 32 237, 1929

PROFESSOR ARCÉ OF ARGENTINE A VISITOR HERE

New York has a distinguished visitor in Dr Jose Arce of Buenos Aires who arrived on December 15 and is a guest at the Metropolitan Club. Rarely among confreres in any land has a physician attained the eminence—in so many cultural fields and public welfare activities—that is allotted this outstanding leader from South America's progressive republic. As president of the Argentine Chapter of the Pan American Medical Association, professor of surgery at the University of Buenos Aires, rector of the University and senator of Argentina, Dr Arcé comes to give addresses on "Pan American Medicine" before chapters of the Pan American Medical Association at New York, Washington, Los Angeles, and San Francisco, also, to observe facilities for teaching graduate physicians in this country. While here, the Medical Society of the State of New York will confer honorary membership upon him.

On December 20, Dr and Mrs Joseph Jordan Eller held a reception at the Court-

house Tennis Club to enable him to meet representative citizens of the metropolitan area. Invitations numbering 800 were issued including those to prominent physicians and their wives, leading citizens interested in Pan American affairs, ambassadors of Latin American countries, their alternates, and all consuls general with their wives from those countries.

Receiving guests at the reception were Hon Dr and Mrs Don Felipe A. Espil, Ambassador of Argentine, Dr and Mrs Conrado Traverso, Consul General of Argentine, Dr Charles Gordon Heyd, President, American Medical Association, Dr and Mrs James Alexander Miller, President, New York Academy of Medicine, Dr and Mrs Charles E. Farr, President, Medical Society of the County of New York, Dr and Mrs Arthur Chace, President, New York Post Graduate Medical School of Columbia University, Dr and Mrs Floyd E. Winslow, Rochester, President, Medical Society of the State of New York.

TREATMENT OF FRACTURES OF THE FACIAL BONES

GERARD H. COX, M.D., F.A.C.S., *Glen Cove*

The structures commonly involved in fractures of the facial bones are the superior maxilla, the malar-zygomatic arch, and the nasal bones. Fractures of the superior maxilla vary from lesions of the alveolar process to fracture of the anterior surface of the body of the bone, extensive fracture of the nasal bones and brain case, associated with injury of the cranial contents. The bony orbit may be fractured and its margins or floor split into fragments, with injury to the eyeball, optic nerve or lachrymal duct. Again, the fracture may involve the nasal accessory sinuses, producing infection or obstructed drainage.

Some of these fractures naturally lie in the field of the rhinologist or rhinoplastic surgeon. Others are more appropriately treated by the dental or oral surgeon.

The rhinologist should take care of fractures of the nose, malar-zygomatic arch, orbital border or floor, anterior wall of the maxillary antrum, and fracture of the anterior and posterior walls of the frontal sinuses. On the other hand, fractures of the alveolus or extensive transverse fractures of the body of the superior maxilla require the services of the dental surgeon.

Just a word in passing in regard to the latter, viz., extensive transverse fracture of the superior maxillary bone where there is downward displacement. Here, as I have said, the services of a dental surgeon are essential. In these cases it is not advisable to resort to wiring the fragments. The best treatment is a case-jacket splint with Kingsley arms connected with a head cap on each side of the mouth. In edentulous cases the Kingsley arms can be used in connection with the patient's own vulcanite denture, if he happens to have one, and the latter is adapted as a splint.

Where the sinuses are involved in the fracture, in addition to restoring the nor-

mal contour of the face, we have the problem of adequate drainage. In a bad accident, our hands are full. The patient generally arrives at the hospital suffering from shock. In addition to reducing the fracture, there may be one or two wounds of the face to be sutured, to say nothing of involvement of one or more of the nasal sinuses in the line of fracture.

Fractures of the upper jaw and malar bone usually are the result of heavy, blunt, crushing blows, such as occur in automobile accidents where the face strikes against the body of the car, or, as happened in one of my own cases, where the patient was struck a heavy blow on the malar-zygomatic arch with a bottle in a fight. Fractures of the nose, on the contrary, are often caused by comparatively light blows.

While it is possible in cases of fracture to have one or more sequelae, such as purulent dacryocystitis, sinusitis, injury of the eyeball, malocclusion of the teeth, etc., it is astonishing how most patients, if the wounds are promptly sutured and the fracture reduced, recover without any permanent injury or bad sinus infection.

Fracture of the malar-zygomatic arch, before the extensive use of the automobile, was comparatively rare. For example, Kemper,¹ in 1902, in a survey of the world literature in the United States Surgeon-general's office found less than one dozen cases reported.

Roberts,² in 1928, found fifteen additional case reports, and added three of his own. Now, with the large number of motor accidents occurring daily, any surgeon connected with an active surgical service meets these fractures from time to time. During the past year I have had under my care four cases of fracture of the malar bone. One of these was associated with extensive fracture of the orbital margin, orbital floor, and anterior wall of the maxillary antrum.

This patient was treated by the Cald-

*Read at the Annual Meeting of the Medical Society of the State of New York,
New York City, April 28, 1936*



Fig 1 Depressed fracture of the malar bone. From Scudder's "Fractures"

well-Luc incision I was then able to lift up the malar bone and floor of the orbit with my finger in the antrum. I endeavored to hold up the fragments by packing inserted in the antrum and brought out through a counter-opening in the nose. In this connection I may say that one of the standard text-books on fractures advises leaving the packing *in situ* for ten days. I do not believe this can be done, as a rule. In my own case, owing to the inflammatory reaction and swelling of the face, I was obliged to remove the antral packing at the end of forty-eight hours.

Just a word about the frontal sinus. When the radiogram shows fracture of the frontal sinus with cloudiness, and we suspect fracture of the posterior plate, external drainage is indicated, on account of the danger of meningitis.

One of my other cases was a depressed fracture of the malar bone, accompanied by fracture of the orbital margin (Fig 1, 2). The patient was a young man who was struck directly on the malar bone with a bottle. The blow crushed in the malar bone and considerable deformity resulted. I reduced this fracture under general anesthesia, with a periosteal elevator inside the mouth, which was pushed

up through a small cut in the mucous membrane opposite the bicuspid teeth into the zygomatic fossa, hugging the malar bone. With the elevator inside the mouth and a finger over the malar bone, I had no difficulty in restoring the normal contour of the face. No splint was necessary to hold the fragments in position. After the operation, I made a trip to the morgue to try out this operation more fully. Having obtained a cadaver, I fractured the malar-zygomatic arch with a blow from a hammer. I was amazed to find how much force was necessary to produce the fracture.

Using the periosteal elevator in the manner indicated above, I found that not only depressed fractures of the malar bone, but also fractures of the zygomatic arch, well back toward the condyle of the jaw, could be elevated in this fashion. I have no hesitation in recommending this procedure as a simple and reliable one.

There are several other operations for elevating fractures of the malar bone.

1. Matas' operation, which consists of running a silver wire around the zygoma, after passing a piece of silk on a Hagedorn needle under the bone. The zygoma is then raised and if necessary, can be held in place by tying the wire about a glass slide.



Fig 2 Method of reducing fracture of malar-zygomatic arch by passing elevator through the mouth and under the malar bone.

2 The open operation, where a small skin incision is made over the arch, through which a hook or corkscrew is used to elevate the bone

3 Gillies' operation Here an incision is made above the hairline in the temporal region and an elevator passed down along the muscle until the bone can be elevated

4 I have already spoken of the antral route, which I used in one of my own cases

The diagnosis of fractures of the malar-

suitable cases, fat or fascia lata may be employed

To properly treat fractures of the nose, it is necessary to bear in mind a few anatomical points

The nose is composed of a bony and cartilaginous framework

The bones comprise the two nasal bones, which articulate with each other in the median line and with the frontal bone



Fig 3 (Left) Recent fracture (Right) Same patient taken four days after reduction

zygomatic arch is often made by inspection and palpation The x-ray, if positive, is helpful Let us not forget that the radiogram is not infallible Only a few days ago, I saw a woman of eighty-nine years, the victim of an automobile accident, who had a depressed fracture of the lower margin of the orbit which did not show in the radiogram

It is well to bear in mind that we get one symptom in depressed fracture of the zygomatic arch, which is almost pathognomonic I refer to inability to open the mouth fully due to pressure of the depressed fragments of bone on the coronoid process of the lower jaw

In old injuries, with depression of the malar bone, orbital margin or anterior wall of the frontal sinus, rib cartilage may be used to build up the deformity In

above Each nasal bone rests on the nasal process of the superior maxilla, forming part of the lateral aspect of the nose The nasal septum lies in the midline, partly bone (perpendicular plate of the ethmoid) and partly cartilage The alar cartilages support the lower lateral structure of the nose

Recent fractures of the nose may be divided into linear, comminuted, and depressed fractures Like fractures elsewhere in the body, they may be simple or compound They may communicate with the external air either through the nasal mucous membrane or through the skin

Fractures of the nose may involve the nasal bones, the nasal processes of the superior maxilla, the nasal spine and the articulation of the nasal bones with

the frontal bones. There may be a fracture-dislocation of the septum or the lateral cartilages may be torn away from their bony attachment.

In general, there are two types of fracture. In the first, the blow is received in an anteroposterior direction, and the nasal bones are driven backward like a wedge, often spreading the nasal processes in a lateral direction.

see a gross deformity resulting from the fracture, or you may be able to gently feel a depressed or broken fragment of bone. X-ray is naturally of great value. Its use, in my opinion, should not be substituted for a careful clinical examination. A short time ago in one of the large New York hospitals, I saw a sixteen-year-old boy with a depressed fracture of the nasal bones. There was also some separation of



Fig 4 (Left) Recent fracture. (Right) Same patient three weeks after operation. Fracture reduced with local

Where the traumatism is received from one side, as in a right-handed blow with the fist, the left nasal bone and perhaps the left nasal process are depressed. On the opposite or right side, on the contrary, the nasal bone is forced still further to the right, and a convexity is produced. The nasal septum will probably be dislocated or fractured at the same time.

The diagnosis of a fractured nose is often easy and may be perfectly evident from inspection alone. Other times, if there is considerable swelling before you see the patient, the diagnosis is not so simple. I personally do not take hold of the nose and manipulate it until I can feel crepitus. This is not pleasant for the patient and the latter may with perfect propriety object to the procedure. If you wait until the swelling subsides, you may

the alar cartilages from their bony attachment. For some reason, the x-ray failed to show the fracture. If I had not happened to examine the patient, he would have lost his opportunity to be treated, because the intern was depending upon the x-ray report rather than upon the clinical examination.

Now we come to the question of the proper treatment to pursue in a given fracture. This naturally is for the clinician to determine. The radiogram cannot be relied upon to inform you as to the position of the fragments in most instances. When the swelling goes down, if the patient looks well and the bones are in good alignment, leave him alone. If he has a deformity, fix his fracture. Never mind what the x-ray report says.



Fig 5 (Left) Old deformity or "saddle-nose," due to fracture several years ago (Right) Same patient after refracture and narrowing, followed by rib cartilage transplant operation

Anesthesia

There is no doubt of the fact that most fractures of the nose can be reduced by local anesthesia without much discomfort, or, if you prefer, with general anesthesia. The latter has the advantage that the operator is better able to immediately judge the results of his work, as there is no distortion of the soft parts, such as produced by infiltration.

I always tell our interns not to operate upon nasal fractures with gas anesthesia from which the patient may come out before the fracture is fully reduced. If general anesthesia is decided upon, use gas-ether or some anesthesia where the operator will not be hurried.

If local infiltration with novocain is employed, we should also pack the nose with pledgets of cotton saturated with ten per cent cocaine.

In general, I may say that I prefer general anesthesia rather than local, where there is considerable edema and ecchymosis of the soft parts.

Recent fractures of the nose, if seen early, before swelling of the soft parts supervenes, should be operated immediately.

If not seen early, and there is too much

swelling, it is best to wait for the edema to subside. If the patient is brought in suffering from shock, we are forced to postpone operation until he reacts. One woman, with a bad fracture of the nose, leaked cerebrospinal fluid through the cribriform plate and nose for several weeks. The surgeon in charge very wisely did nothing. The patient recovered, and a number of months later the deformity was corrected by plastic surgery.

The technic which I employ for the correction of recent fractures is as follows. Use a general or local anesthetic, take plenty of time, use as few instruments as possible, and do not employ any more force than is absolutely necessary. I find I can reduce the large majority of recent fractures with a small submucous periosteal elevator and my thumb. The elevator is used to raise the depressed fragments of bone, and the thumb is employed to exert pressure over the convex side of the fractured nose to force the fragments back into the median line. Sometimes the flat handle of a rasp, protected by a piece of gauze, is held over the displaced nasal bone and a sharp blow with a mallet is administered. Usually, if the external deformity is corrected, the septum snaps back into position. If not, it

may be necessary to use an Asche forceps

It is not always necessary to immobilize a fractured nose after reduction. If the deformity is a slight one, and the displaced fragment of bone snaps back readily into place, it is often possible to dispense with a splint. In the majority of instances, however, some form of immobilization is advisable.

The simplest is a bandage roll on each side of the nose, held in place by adhesive plaster. Moulded copper splints (20 gauge sheet copper) have been extremely useful in my hands. Some prefer to use red dental moulding material shaped to fit the nose, which, like the copper, is held in place by adhesive plaster.

Watson-Williams of London uses a triangular piece of silver wire introduced within the nose to hold up the depressed fragment. Carter³ has devised a bridge splint, and Gillies a splint attached to the teeth. One other which should be men-

tioned is Joseph's splint with leather head band and arms running down to one or both sides of the nose. These arms are adjusted by thumb screws.

Old lateral deformities of the nose require refracture and narrowing by the intra-nasal method, while depressed fractures (saddle nose) are usually treated by one operation to straighten and narrow the nose, and a second operation to build up the depressed structures by a rib cartilage transplant, which is usually taken from the patient's seventh, eighth, or ninth ribs.

The accompanying illustrations, show illustrative cases both before and after operation (Fig 3-6).

References

- 1 Kemper *Indianapolis Med Jour* Vol 21 1902
- 2 Roberts Sam E. *Annals of Oto Rhin, and Larynx* p 826 September 1928
- 3 Carter, W W *Medical Record*, February 1922

Discussion

DR. JAY DASHIELL WHITMAN, *New York City*—The injuries to the bones of the face about which Dr. Cox has spoken so completely are all caused by direct violence.

When I first studied medicine a fracture of the malar bone was called a "bicycle riders fracture." Since the advent of auto-

mobiles and airplanes much greater force is applied to the face in accidents through a fall from a bicycle and as a consequence, fractures of the bones of the face are usually attended by complications. Among the complications are shock, hemorrhage, fracture of the skull, concussion of the



Fig 6 (Left) "Saddle-nose" deformity (Right) Same patient after rib cartilage transplant.

rain, fractures of the jaw bones, and extensive laceration of the soft tissues

The reduction of a fracture of the malar bone, which is always a depressed fracture, can be accomplished by the external use of a traction screw but the method described by Dr Cox of replacing the bone through the buccal route is preferable. Should the outer nasal wall be comminuted, as is often the case, Dr Cox's method is of especial advantage in replacing or removing the displaced fragments. When the depressed malar bone has once been replaced no appliance or dressing is needed to retain it in position.

Fractures of the zygoma are usually uncomplicated. There is always an inward displacement of the bone. This I believe is best corrected by a small hook introduced through a tiny skin incision. Reductions through the mouth might cause an infection of the infratemporal fossa. Fracture of the zygoma does not interfere permanently with the movement of the jaw even when it is not reduced. Fractures of the orbital margins are usually complicated by fractures of other bones especially the nasal bones and skull. They are usually accompanied by extensive laceration of the face and hemorrhage in the orbit. The deformity is corrected by a hook or screw externally. When this is not successful an incision similar to the Caldwell-Luc incision is made and the reduction is made directly. When the fragments tend to fall out of place they may be perforated in two places and No. 22 silver

wire carried through the perforations and twisted to coapt the fragments. It is not necessary to remove the wire after union has taken place.

On my nasal plastic service at Bellevue Hospital we have operated on several hundred, recent and old fractures of the nose and have had an opportunity to try out many old and new ideas. It is not possible to discuss this briefly.

When the nasal and facial bones are badly comminuted and extensive laceration of the tissues is present one is tempted to remove the loosened and misplaced bone fragments. This temptation must be resisted. The fragments should be replaced and held in their correct position by fine catgut sutures through the periosteum. Special attention should be given to the lining mucous membranes for the final cosmetic effect will depend on the proper restoration of the mucous linings and the bony structures as much as on the attention paid to the skin covering.

Where there has resulted a loss of bony support after extensive injuries, fat and fascia or rich cartilage grafts will improve the result. My preference is for small flat pieces of rib-cartilage. Such grafts are especially useful in restoring depressions of the orbital margin, the nose, and the forehead. When the frontal sinus has been obliterated by a radical operation, small flat bits of cartilage inserted under the skin will give a good cosmetic effect.

ETHICS THE SAME IN ALL TONGUES

The problem of medical advertising in a polyglot city like New York has been greatly complicated by the foreign language press, says the *Medical Week*. Following the custom of their country of origin, many foreign born physicians catering to patients of their own nationality have been accustomed to advertise in newspapers published in their native tongue. In Europe this is not an uncommon practice. In the United States it is a violation of the code of professional ethics.

Such infractions, springing from long established custom, might not have been serious per se had they not been aggravated in many cases by the nature of the advertising employed. Very few of the foreign language newspapers restrict their advertisers and more than one doctor went the limit in proclaiming his skill and promising cures.

In an attempt to curb exaggerated and misleading advertising without striking too severe a blow at national custom, The Medical Society of the County of New York for a period of years has waived some of its restrictions on advertising for the benefit of foreign born physicians in their dealings with compatriots. Notices in the foreign language press have been permitted, provided they confined themselves to the name, address and specialty of the advertiser.

It is time, however, for foreign physicians who desire to remain in good professional standing to relinquish these special privileges and abide by the same rules as govern the rest of the profession. Henceforth the Principles of Professional Conduct will apply equally to all practitioners, no exceptions will be made in favor of the foreign language press. It is hoped that the new ruling will be promptly and strictly observed.

ASPIRATION OF WOODEN TONGUE DEPRESSOR

Followed by Purulent Pneumonitis

HENRY P. SCHUGT, M.D., F.A.C.S., *New York City*

The following case, because of its unusual nature constitutes a warning to the profession to be alert to the possibility of the aspiration of a foreign body into the bronchial tree during general anesthesia. Search of the literature reveals only one case of a foreign body similar to that described in this report, having been removed from the trachea.¹

J.L., white, male aged twenty-nine was admitted to the hospital with the diagnosis of perforated gastric ulcer. His condition was so alarming that an immediate operation was imperative. While under general anesthesia it became necessary to insert a pharyngeal breathing tube, and the anesthetist attempted to open the patient's mouth with a wooden tongue depressor. At this instant the patient made a violent gagging effort the tongue blade was broken into two pieces, and the distal fragment disappeared. It was assumed that the missing part had been coughed out by the patient but despite careful search of the operating table and room the fragment could not be found.

Two days later the patient's temperature rose to 103.4° F. Clinical examination of the chest revealed no evidence of pneumonia at that time. Four days after the operation the patient began to cough up a brownish sputum and dullness became evident to percussion at the right base of the lung, accompanied by coarse râles and bronchovesicular breathing. Radiographs showed consolidation of the inner zone of the right lung. A diagnosis of pneumonia was made and appropriate treatment instituted. Radiographic studies of the chest revealed no foreign body. When the pneumonia failed to resolve after two weeks the author was asked to perform a bronchoscopic examination. When this was done a large portion of a wooden tongue depressor (Fig. 1) measuring 6.5x1.7 cm. was found in the lower trachea resting on the bifurcation. The foreign body was removed without difficulty.

Although the patient's temperature came down slightly it remained around 100-101 degrees. His general condition continued to be poor. Physical and radiographic

examination revealed a purulent pneumonitis in the right lower lobe. A second bronchoscopy was done and a considerable amount of purulent material was aspirated from the right lower lobe. Another rise of temperature to 103 degrees in the afternoon continued for one week during which time a right-sided pleural effusion developed. Thoracocentesis obtained a small quantity of sterile fluid. A transfusion of 500 cc of whole blood was given. During the following twenty-one days the temperature gradually came down to normal. The patient showed no further signs of pulmonary infection and he left the hospital eight weeks after admission, in excellent condition.

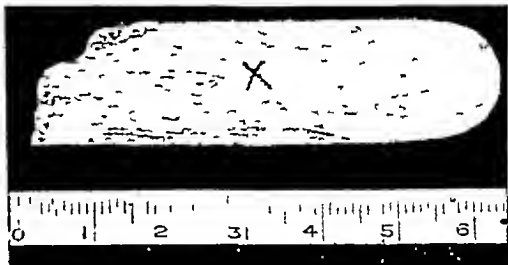


Fig. 1 Wooden tongue depressor (6.5x1.7 cm.) removed from trachea.

Comment

Study of this case emphasizes the importance of immediate bronchoscopy in postoperative pulmonary complications such as atelectasis and suspected foreign body. While this is well-known to bronchoscopists it is not sufficiently realized by the general medical profession. The delay in this case was considerable, but fortunately, it was not followed by some of the grave sequelae too often noted, such as chronic lung abscess, bronchiectasis or death from pneumonia or chronic sepsis.

30 E 40 St

Reference

1. Tucker, Gabriel. *Annals of Otolaryngology* 43:1124, 1934.

TRANSFUSION SYPHILIS

MORTON W WILLIS, M D , *New York City*

The following case is reported because it indicates that syphilis can be transmitted by blood transfusion even though the donor has a negative Wassermann test and has previously received six intravenous injections of an arsenical preparation

Mrs A G had received prenatal care at the Metropolitan Hospital Prenatal Clinic, where her Wassermann test was found to be negative

On September 28, 1935, she was admitted to X— hospital during the third stage of labor because of retained placenta, vaginal hemorrhage, and shock The Kahn test on her blood was negative

The next day, a transfusion of 350 cc of blood was given, the donor being a friend of the family, S C No record has yet been found of a Wassermann test having been done at the X— hospital on this donor before the transfusion was performed His Wassermann reaction was reported by the Department of Health on September 28, 1935, as plus-minus, and on October 9 as negative

On January 28, four months after the transfusion, Mrs A G entered the Mount Sinai Hospital because of pain and tenderness in the lower cervical and dorsal regions in the back which she had had for about a week Examination revealed a generalized lymphadenopathy and a palpable spleen The blood Wassermann was four plus and the Kahn test on the blood two plus Blood examination was as follows Hemoglobin fifty-eight per cent, red blood cells 3,570,000, platelets 240,000, white blood cells 4,100, non seg five per cent, seg sixty-four per cent, eosinophiles two per cent, lymphocytes twenty-three per cent, monocytes five per cent X-ray of the spine was negative A biopsy of a supraclavicular node was reported showing inflammatory hyperplasia

Because of the strongly positive Wassermann reaction, it was suspected that the general lymphnode enlargement might be due to syphilis The patient was therefore given a provocative injection of neoarsphenamine 0.2 grams on February 8 Two days following the injection, she developed a typical copper-colored macular eruption on the trunk and upper extremities which was diagnosed by Dr I Rosen, chief derma-

tologist of the hospital, and Dr L Chargin, as a secondary syphilitic eruption The rash gradually faded in the course of the next four days Antiluetic treatment was given. The patient received both neoarsphenamine and bismuth

The history of the donor is as follows On September 9, 1935, he applied to the Board of Health clinic on Centre Street because of a small penile ulceration and a history of having had intercourse with a prostitute. On the same day, the dark field examination was found to be positive for spirochetes and treatment was initiated Examination revealed inguinal adenopathy in addition to the penile ulceration There was no eruption on the body or on the mucous membranes 0.02 grams of mapharsen was given on September 10, and 0.06 grams on September 14, 18, 21, 25, 28 On September 14, the Wassermann was reported as anti-complimentary On September 28, it was reported to be plus-minus and on October 9, negative The injections of mapharsen, 0.06 grams were continued every three or four days after September 28 until twelve doses were given Then nine doses of bismuth were administered The Wassermann became positive, four plus, on December 4 after the fourth dose of bismuth had been given Although injections of 0.06 grams of mapharsen have been alternated since then with injections of bismuth, the Wassermann reaction still remains four plus

This case of transfusion syphilis is reported because of its unusual importance The donor's blood was still infectious in spite of the fact that he had six previous injections of an arsenical preparation He was in the primary stage of syphilis and his blood Wassermann was plus-minus on the day before the transfusion and was reported as negative eleven days after the transfusion

The experience demonstrates that a negative Wassermann reaction on a blood donor is not sufficient to eliminate the possibility of active syphilis and of a spirochetal bacteriemia In addition to the Wassermann test, the donor should be asked concerning syphilitic infections

From the Mount Sinai Hospital, service of Dr George Baehr

SPECIFIC THERAPY IN RHUS DERMATITIS

HERMAN SHARLIT, M D and BEN A NEWMAN, M D, *New York City*

From the Departments of Dermatology and Syphilology, New York University College of Medicine and of Bellevue Hospital (Service of Dr Howard Fox)

The high incidence of Rhus dermatitis in this locality, the extreme discomfort to the victim, with resulting economic loss through incapacity, justifies persistent search for an effective remedy. In keeping with modern trends, and experience with allergic phenomena, sporadic reports covering approximately twenty years have dealt with the use of Rhus leaves and their extracts, both as a curative remedy and an immunizing procedure. Two facts stand out as a result of these efforts (1) that occasional helpful preparations have been made and (2) that present available Rhus preparations, as supplied by manufacturing pharmacists are quite generally useless or undependable. The first warrants and the second compels a further effort to prepare a useful Rhus extract for the treatment of Rhus dermatitis.

Duncan¹ attempted popularization of the ancient folk remedy of chewing Rhus leaves. Strickler² recommended the oral administration of the tincture of Rhus leaves. Shamberg³ offered the hypodermic use of this tincture. These somewhat promising reports were met with a "failure to confirm" in the publication of Krause and Weidman,⁴ and this not alone for treatment but for immunization as well. However, a current publication by Molitch and Poliakoff⁵ reports successful immunization therapy by the use of an extract made according to the directions of Spain and Cooke.⁶ A new departure came with the introduction of an oily solvent for the Rhus substance. Clock,⁷ using almond oil, reported it more potent than alcohol extracts and nontoxic, with the added advantage of being painless on injection. Gowen's⁸ publication was essentially in confirmation of this. It is of interest to note that attempts at immunization via baths containing Rhus extract

were tried and reported.

Dermatologists, after a liberal experience with such products as based upon the above reports, were quite generally agreed that no reliance could be placed in them in the treatment of Rhus dermatitis. Special attention, however, must be paid to the report of Spain and Cooke in 1927. They undertook to circumvent the evident instability of Rhus extracts by making extractions in the complete absence of water, using absolute alcohol as a solvent. In the light of our own experience, we emphasize the importance of this contribution, realizing, however, that this is but one of several conditions underlying the preparation of a satisfactory, reproducible extract. We, too, are not as yet convinced of the complete adequacy of the method we employed in the preparation of our active extract. We include it, however, as a matter of record. Apparently it differs little, if at all, from that outlined by Spain and Cooke.

Our effective extract was prepared as follows:

Freshly gathered ivy leaves were thoroughly dried at a temperature of 50°C. These dried leaves were broken up in a coarse mesh sieve, thus sifting out for elimination bits of twig and mid rib. Ten gms. of leaves were extracted with one hundred cc absolute alcohol for seventy-two hours at room temperature, and filtered. This filtrate was kept as stock solution.

We selected for treatment only such patients in whom the clinical diagnosis of Rhus dermatitis was definite and in whom the condition was severe or moderate. The severity in all cases was such as to show involvement at least of both upper and lower extremities, with edema, vesiculation, and intense pruritus. The patients in our group ranged in age from six to sixty-two years. No topical appli-

cations were permitted during the treatment. At the first visit each patient was given, in addition to the first injection, a patch test with the ivy extract, in a concentration used in the treatment. The treatment consisted of a hypodermic injection into the deltoid region, with a $\frac{3}{8}$ inch needle, on each of three successive days. The extract used was a 1:1000 dilution (1% of stock solution), in absolute alcohol, dosage 1/10 c.c. A local burning sensation, lasting less than one minute was the only reaction to the injection. No local reactions were noted with the exception of an occasional slight erythema about the point of injection. Eight patients in this group were used as controls for an evaluation of the effect of the solvent. They were given injections of 1/10 c.c. absolute alcohol. Eighteen patients were treated with an absolute alcohol extract of ivy leaves in like dilution and in similar manner, but from a preparation suspected, through previous patch testing, to be ineffective.

It is to be understood that by effective therapy we refer to the cessation of symptoms and stoppage of further spread of the inflammatory reactions. Where successful treatment ensued, amelioration set in after the first injection. Table I gives a statistical picture of our results. Of seventy-four patients treated with the effective extract, sixty-three received complete relief in four days, eleven failed of such relief. No aid came to the eight control subjects treated with the absolute alcohol and none to the eighteen treated with the ineffective extract.

These results are definitely and unequivocally proof that an ivy extract can be made that is curative of Rhus dermatitis. The results of the patch tests made after the usually approved manner and applied for twenty-four to forty-

eight hours, gives, it seems to us, some directive definition of the type of extract that may be expected to give satisfactory results in treatment. Of the sixty-three relieved cases all gave a positive patch test. Of the eleven unrelieved cases, by way of the effective extract, six gave a negative patch test. Further, of the eighteen unrelieved patients treated with the ineffective extract, none gave a positive patch test with that extract. It would appear that the effective extract should contain a dermatitis-causing substance, a "dermatogen," if word coinage is still permissible. That this "dermatogen" is identical with the causative principle of Rhus dermatitis is only presumptive but immaterial. The concept "specificity" in relation to therapy is not necessarily referable to any chemical homology between irritant and its therapeutic antidote. Specificity may just as appropriately be applicable to the source of the therapeutic agent with little, if any, reference to the chemistry of that agent.

For the moment it might be best to reserve this latter meaning for the specific therapy herein discussed. Concededly, immunization therapy would require, as we see it, a stricter definition of specificity. Indeed, if the term "specific therapy" is to avoid complete emasculation, it should, as referable to immunization therapy, apply definitely to the use of chemical units identical with those causative of the disturbance for which immunization is sought.

Aside from some uncertainty as to the exact position to be taken with respect to the definitive features of the term "specific," as applied to dermatologic therapy, a healthy skepticism should prevail concerning the "specific" nature of many therapeutic procedures that are

TABLE I

Number of Patients	Type of Extract	Number of injections	Dosage	Patch Test	Results on Fourth Day
63	Rhus Ext. effective	3	{ 0.1 Cc 1-1000 dilution	Positive	Complete relief of symptoms
5	Rhus Ext. effective	3	{ 0.1 c.c. 1-1000 dilution	Positive	No relief of symptoms
6	Rhus Ext. effective	3	{ 0.1 c.c. 1-1000 dilution	Negative	No relief of symptoms
18	Rhus Ext. ineffective	3	{ 0.1 c.c. 1-1000 dilution	Negative to ineffective extract	No relief of symptoms
8	Absolute alcohol	3	{ 0.1 c.c.	Positive	No relief of symptoms

apparently deserving of such identification. A fundamental weakness in the whole groundwork of allergic studies has been a lack of standardization of the method of preparation of the testing and treatment materials applied in the field. Until this all-important defect is remedied, the concept "specific" will remain unsatisfactorily definable.

Thus, in the matter of Rhus extracts, uncertainty in the matter of adequate methods of preparation has left our clinical experience without meaningful interpretation. Our report can at least be accepted to establish the fact that an effective therapeutic extract can be made. But what, to us, is of greatest significance and what most justifies this presentation, is the fact that but slight variation in

the technic of preparation meant the difference between a therapeutically effective product and a practically useless one. The problem remains, what are the precise conditions for the preparation of an effective extract. We hope soon to be afforded the opportunity to attempt a solution of this problem.

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References

- 1 Duncan, C. H. *New York Med Jour*, 104 901, 1916
- 2 Strickler, A. *Jour Cut Diseases* 36 327 1918
- 3 Shamberg, J. F. *J.A.M.A.*, 73 1213, 1919
- 4 Krause, G. L., and Weidman, F. D. *J.A.M.A.* 84 1996 1925
- 5 Molitch, M. and Poliakoff, S. *Archiv Derm and Syph*, 33 725 1936
- 6 Spain, W. C. and Cooke, R. A. *Jour Immunology* 13 93 1927
- 7 Clock, R. A. *Med Jour and Record* 122 93, 1925
- 8 Gowen G. H. *Jour Allergy*, 4 519 1933

DO HEALTH WORKERS IGNORE ACCIDENTS?

The tendency of public health officers to concern themselves solely with the problems of diet and contagion, to the neglect of external causes of disability and death, is deplored in a statement issued by Dr. Edward S. Godfrey, Jr., State Commissioner of Health.

Referring to the increase in deaths from accidents in contrast to the decrease in the death rate from infectious diseases, Dr. Godfrey asks what the net gain could be when a child, who has been saved from death by regulation of his diet, eventually pulled a stewpan of boiling water off the stove and suffered a fatal scalding.

"What use to protect him against diphtheria when he is to be killed by an automobile?" Dr. Godfrey inquires.

"What impresses me," Dr. Godfrey says, "is that few, if any, health officers or health departments are displaying any interest in the prevention of injury and death from accidents. They are content that the statistics shall be tabulated and published, leaving prevention entirely to other agencies or to the will of God.

"There have been none to make the health officer feel any consciousness of the obligation to act, none to direct his thinking along preventive lines, none to point to the need for further information of the kind that will enable him to meet the problem."

Dr. Godfrey expressed the belief that health departments had their greatest responsibility and opportunity in the field of home and public accidents.

By studying individual public accidents, by plotting them on "spot" maps and by discovering common hazards, he said, much influence could be brought to bear for the removal of such hazards, just as health departments influence the removal of the dangers of polluted water supplies.

"With respect to home accidents, the opportunity and responsibility are more direct," he added. "Deaths from this type of accident almost equal motor vehicle accidents in the county as a whole and in some States exceed them. While the death rates from automobile accidents have risen, those from industrial accidents have fallen and those from home accidents have remained essentially the same.

"No one is in a better position than the public health nurse to note the physical hazards of the home, the personal habits that contribute to accidental death and disability. Parents are instructed how to feed, clothe and clean their children, in the importance of avoiding contagion, in the need for certain immunizations. It is high time that health departments take an active part directly and indirectly in the prevention of death from external causes."

ROLE OF THE PATHOLOGIST IN THE NON-TEACHING HOSPITAL

THEODORE J. CURPHEY, M.D., *Brooklyn*

This title is somewhat of a misnomer. By the non-teaching hospital is meant one not connected with a university, rather than one that does not engage in teaching. A typical hospital of this nature is staffed by men doing general work for the most part, with a fair number of men trained in the specialties. In the main, although the medical services given the individual patient are satisfactory, the clinical material is very seldom utilized to the fullest for the training of the visiting staff and intern personnel. The result is that the bulk of the hospital staff by virtue of the lack of organized facilities for the advancement of their own medical knowledge, never quite utilize fully their medical opportunities in the institution. It is in such a group that the pathologist will find an excellent opportunity for service, and it is the purpose of this communication to outline possible lines of development towards the attainment of this end.

For the pathologist to serve such a group efficiently, it is obligatory on the part of the institution to employ a man who is able to spend the major part of his time there. The present day arrangement prevalent in many hospitals, whereby the pathologist is largely a nominal head of the department working on a short part-time basis and without the use of resident or assistant pathologists in the institution is to be decried. Hospitals having such a working arrangement with a pathologist, based largely on the matter of economic consideration, are pursuing a "penny wise, pound foolish" policy, and the pathologist working under such conditions is found to be a poorer servant to his group on both medical and economic grounds. All of us know the type of pathologist who covers three or four hospitals in his stride in the course of his working day, and those of us who at one time or another, because of economic needs, have had to do this, know how ineffective and inefficient our efforts often are.

Allowing then that the institution is able and willing to provide for the economic security of the pathologist, thus permitting him to devote enough time to the problems of the group, the usefulness of the individual becomes at once evident. One of the first functions of such an individual should be the establishment of a laboratory organization that gives prompt and accurate service to the medical staff. In building such a service, as much attention should be paid to obtaining the confidence and good will of the medical staff as in carrying out the actual laboratory tests. The ultimate expression of this cooperative relationship will have been reached when a staff member, obtaining a laboratory report at variance with his clinical expectation, will be willing to concede that the laboratory is not in error, and that it is time to reinvestigate the case with another diagnosis in mind. For him to come to this opinion, he will have to have been gradually conditioned by previous experience with his laboratory staff as to their accuracy, sincerity, and helpfulness in the past. Too often in the non-teaching hospital especially, the effective assistance of the laboratory is lost because of the subconscious distrust and feeling of uncertainty that the clinical staff holds for the laboratory report. The consciousness of having obtained the confidence of the clinical group and the desire not to lose it offer one of the greatest driving forces to the pathologist in his hospital work.

There is another and more personal relationship of vital importance, if the pathologist's efforts are to be effective in his group. This is the appreciation by the clinical staff of his desire to be impartial and impersonal in the course of his work in the hospital. With due regard to the danger of overemphasizing the importance of the position of the pathologist in the hospital group, in many instances he functions as the court of final appeal in the case. This is perhaps more fre-

quently true in the field of surgical pathology where he is often called upon to pass opinion as to whether the structural changes present are sufficient to substantiate the pre-operative diagnosis of the lesion. In doing this he must be encouraged by the attitude of the staff to express the truth as he sees it. His usefulness, and more important still his position, should not be jeopardized by his adverse opinion, but there are hospital groups which have threatened the pathologist with the loss of his position because of his refusal to label as appendicitis, the histologically normal-appearing appendix.

Similarly, his function as an integral part of the clinico-pathological conference is one in which a fair-minded man can offer valuable help to his hospital group. It is first of all important that he be reasonably familiar with the difficulties in clinical diagnosis and not abuse his privilege by being unjustly critical after he has the benefit of the autopsy findings in the given case. Provided also that he makes the effort to correlate the clinical history with the autopsy findings, his expression of opinion should be accepted as his impartial view and should not have to be modified by the demands of the situation, as to whether such an opinion is apt to offend the members of the clinical group. We are all familiar with the situation where the pathologist has to exercise unnecessary reserve in his expression of opinion because of the undue sensitiveness of certain members of the staff to anything that savours of criticism. Happy indeed is the pathologist who finds himself in the environment of a non-teaching hospital able to express himself fearlessly on such matters as the "chronic" appendix or gall-bladder, or those errors in judgment that not infrequently lead to the autopsy table!

Another important function of the pathologist in the non-teaching hospital is that of entering actively into the utilization of the clinical material of the institution for original investigation. So many pathologists, because of their temperament and their training, exhibit some aptitude for clinical research. Similarly, in almost every hospital there will be found a sufficient number of the attending or intern group who have still retained or have developed some scientific curios-

ity. These men, by virtue of the greater demands on their time that clinical practice necessitates, are able to devote much less actual working time to investigative problems than the pathologist. If the latter attempts to provide them with stimulation, and also actual help, by placing technical assistance at their disposal, it is often a relatively simple matter to start some form of investigative work in the hospital. Such a policy, while often creating more work for the laboratory staff, incidentally acts as a powerful deterrent to its staff members from becoming mere routine workers, and forestalls the dissatisfaction that often comes to the more ambitious workers who are allowed to fall in the rut of common laboratory routine. Moreover, the psychological effect of such an effort on the other members of the clinical staff must not be lost sight of, as the power of emulation and imitation is an influential force in the smaller medical groups.

Perhaps one of the major functions of the pathologist in a hospital not connected with a university is his opportunity to interest himself in the activity of the intern staff. It seems that too little attention has hitherto been paid to this valuable arm of the medical group in non-teaching hospitals. There seems to be little realization as to the drastic change the recent medical graduate faces when he embarks on his training in the hospital, preparatory to practice. Unless his university training has been unusual, he starts in the hospital with a large assortment of medical facts which he, subconsciously at any rate, has come to regard as having almost mathematical accuracy. Coupled with this he is likely to lack perspective as to what are the really important features of his medical education. Often, too, if he has been trained in a school that tends to overemphasize the importance of laboratory investigation in the diagnosis and treatment of disease, he is apt to think that the matter is simply one of passing the patient and his excretions through the laboratory hopper and having them emerge with an accurate diagnosis at the other end of the machine. He soon comes to realize in his hospital work that many of the attending staff, especially those of the older school, use entirely different methods and thereby

cure their patients. If he finds that even after using his modern methods the diagnosis is often in doubt and that patients frequently die in the face of a seemingly good prognosis, good, that is, according to the mathematics of the laboratory, or better still, recover, often without any diagnosis at all, then he is at a loss to find himself, largely because of the big gap between his teaching in the university and the university hospital on the one hand, and the practical demands of a hospital life on the other. Such an individual with no help from the more experienced men in the clinical group, fights a losing battle for some time, finally succumbing to the odds against him, and is apt to become at the end of his internship a mediocre worker, lacking in the qualities of observation and deduction, and current literary knowledge, becoming a man on the threshold of medical practice with ideas colored by a desire to succeed largely through his political and social contacts, in preference to the more virile qualities of accurate training, clear thinking, and courage. The result is that a paradoxical situation now exists, in that year after year many men are being graduated from the universities imbued with a sense of medical idealism and provided with highly developed technical training, and are passing through hospitals of the type above described, finding themselves at the threshold of practice with what amounts to a great spiritual and mental loss, the result of the intervening denervating influence that the so-called non-teaching hospital provides. Such a series of events can but lead to the gradual deterioration of the ideals and technical qualifications of the practitioner of medicine.

One of the major aims then of the pathologist in such an institution should be in the direction of stressing to the intern staff the importance of careful clinical study apart from the laboratory aids. He should be able to show that a well-taken clinical history, coupled with sound clinical observation in conjunction with a minimum amount of laboratory work is frequently all that is necessary for the intern to arrive at the correct diagnosis and the proper management of a given case. To inculcate the idea of economy of laboratory work it is necessary for the pathologist to possess and

develop his clinical training and to be in close contact with the case material in the hospital, and to actively discourage unnecessary laboratory tests. To this end, too, the intern should be given a short period of training in the laboratory, during which time he will be able to see for himself how much unnecessary work is performed on patients.

Another function of the pathologist in such a hospital is to point out the need to the intern staff and often to the attending staff, of close observation of the progress of the individual case under treatment. So frequently a pathologist is called upon to perform an autopsy on a patient dying from an unusual or interesting disease, only to find that the clinical interest had ceased following the establishment of the working clinical diagnosis, with little or no clinical data in the intervening time between the diagnosis and death. It is the careful observation of the changes in the clinical picture during the progress of the disease, that is of inestimable value to the intern in his training, and he should be encouraged to write clear brief notes on the progress of his cases.

Another function of the pathologist, one far removed from his office, and one which rightly belongs to the attending clinician, is the attempt to impress the intern with the need for instituting rational treatment in the individual case and to check his enthusiasm in the use of therapeutic agents whose only recommendation is that they are new. The intern should be made to offer sound reasons, on such occasions as on ward rounds, clinico-pathological conferences, etc., why various therapeutic procedures have been ordered by him. This gradual process of training during his stay in the hospital, will undoubtedly make him skeptical of many of the newer therapeutic agents in vogue at the present time, and besides making for a sounder medical reasoning will help also to protect the patient's economic state.

The pathologist's interest in the intern's problems may be further stimulated by means of the clinico-pathological conferences that are common in every hospital. Such conferences should be essentially sessions in which the interns are encouraged to voice their opinions and their reasons for diagnosis and treatment of

their patients Too often this is not the case, the intern being nothing more than a passive bystander in the conduct of these conferences In order to encourage him to take an active part, he should be made to feel free to discuss the medical reasoning and the course of treatment of a case by his seniors and even encouraged to offer criticism, provided that in so doing he can clearly show that his opinions are founded on sound and accepted medical facts Training of this sort, besides acting as a stimulus to the attending staff, will provide the intern with the necessary incentive toward clear-thinking, and even more important, perhaps, toward a courageous expression of his opinion

With the foregoing ideas in mind it is evident, therefore, that the pathologist has

offered to him an excellent opportunity to pioneer in an unexplored territory, in so far as the non-teaching hospital is concerned In so doing he can be assured of the enthusiastic support of his medical staff At the same time he will not be long in realizing that his progress along these lines will have aided in correcting the impression that the clinician often has of the pathologist as being a myopic individual whose bounds of vision do not extend beyond the walls of the laboratory By such efforts he will have substituted instead, the picture of a consultant primarily and generally trained in the arts and science of medicine, but choosing to follow thereafter one of the more exact branches of the science

480 HERKIMER ST

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D , D R P H , *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Prevention

Reading in the newspapers about the young woman who recently killed her girl friend and said, "I don't know why" and "For about a year I've frequently had an impulse to kill", recalls other cases where similar crimes *could have been prevented* The reports quote her as saying that she had wanted to be examined by a psychiatrist but that *nobody took her seriously*

A patient laboring under another form of mental disturbance, a manic, came to see me four years ago, complaining about his wife's infidelity He was sure that she had other men at his home when he was away And although he never saw it, he "knew" that she and they were "honeymooning and dearying all around the place until it sickened him" When I met his wife I was at once convinced that he was tortured by paranoid ideas of persecution For she was a poor, distorted cripple and the mere thought of her being sexually faithless was highly ridiculous Indeed, in accordance with all the laws of reasoning, she should have been the jealous partner, as her husband was physically sound and well-built. But a mental quirk, which could also be explained

in a rational way, made him the accuser Not only she denied the accusation and not only his own brothers concurred with her, but a study of her personality, a check-up of her time—she was a hard worker and housekeeper who never dressed up and never went out, all devoted to husband and children—confirmed her perfect, and perhaps enforced, honesty On the other hand this man was ill beyond a shadow of a doubt.

After a short time he improved and, to all intents and purposes, appeared normal But he as well as his family were warned about a recurrence and told that the patient must not discontinue to see the doctor and should be under psychotherapeutic care and observation for a long time.

A few months later there was another crisis One of the men who was supposed to be a rival, entirely unknown to our patient's wife, but a childhood friend of his, happened to die The patient was heart-broken. He cried bitterly Why had he estranged Bill? Why had he thrown mud upon his pure and innocent character? Why had he not spoken to him for years? How will he ever prove to him now that he had

really loved him? That it had all been a mistake? What will he do? No imploring will help. He could never show his regret, he could never obtain a pardon. To whom shall he talk? To the earth? To the open grave?

Unwillingly, Freiligrath's, last century's great German poet's verses came to mind "*Oh lieb', solang du lieben magst, Die Stunde kommt, die Stunde kommt, Wo du an Graebem stehst und klagst!*" Yes, the poet felt with this patient and with other unhappy individuals that when the friend was gone it was too late to love and that one could only pour out his grief and wail and mourn without result.

However, after some conversations he overcame that too and he was again asked to come at regular intervals. He promised and his family promised for him. But he failed to show up.

Three and a half years passed. Each time I saw his brothers I would caution them, but they would assure me that our man was in good mental health, that he was getting along "fine" with his wife and children "and everybody."

Then one day, a few months ago, a member of the family came to call me to the hospital where the patient was interned. I dislike seeing patients in stages of illness where I feel helpless and where staying in an institution is not only the sole therapy possible, but where the mere being away from the familiar people and objects may sometimes really effect a cure or a restoration to routine life. I also find it utterly useless to mix into the work or treatment of any hospital. In spite of that I decided to yield and visit this patient where he was. I changed my day's program and was ready to go when a telephone call informed me that it was too late: the patient was dead, a suicide, in his hospital room.

What had happened?

A few days previously our client went, after a day's hard work, to a banquet and ball of his benevolent society where he spent the night amid great excitement, overeating,

drinking excessively and dancing much. I had, of course, forbidden long before and repeatedly such conduct or anything likely to be a contributory cause to a bad attack, but I cannot tell how many times I had been disobeyed. He came home at seven o'clock in the morning, could not sleep, and had his fit.

He tried to cut his throat with a knife. When his wife interfered, he bit her and threw chairs and dishes at her and would have killed her had not the neighbors rushed in. Then he was taken to the hospital.

Had he been completely well during the three and a half years in which I had not seem him, as I had been assured? Not at all, as further questioning of the family proved now, after his death. It appeared that he used to bring home stories about all sorts of suspicions concerning his fellow workers in the shop and had many persecutory ideas. Once or twice, it seems, he was taken to his lodge doctor who found that there was "nothing the matter." At least so I was told by my informants.

It is impossible to be absolutely certain about it, but in the light of other cases of the same kind there is great probability that, with more cooperation, this tragedy could have been prevented at a time when the patient's mental condition was less advanced.

Let me take this opportunity to say that after very many laudatory letters of medical readers—some from specialists—urging me on to write because of the usefulness of these case reports to the general practitioner, I just received a discouraging note from one of the doctors. He said that while "he knew nothing at all about mental hygiene or psychotherapy he did not see how prevention of insanity was possible." I answered by comparing this work with the advisability of taking measures to prevent pulmonary tuberculosis in certain cases of subacute or subchronic bronchitis. But this story from life is a better reply. I have no doubt that all psychiatrists will agree with me.

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NEW TREATMENT FOR DEMENTIA PRECOX

Dr. Manfred Sakel of Vienna, the originator of the Hypoglycemic Treatment for dementia precox, is visiting the United States and at present is at the Murray Hill Hotel in New York City.

Upon the invitation of Dr. Frederick W. Parsons, Commissioner of the Department of Mental Hygiene in New York State, Dr.

Sakel is holding a clinic at the Harlem Valley State Hospital, Wingdale, to teach a group of selected physicians from the institutions in the Department the technic of this new form of therapy.

Dr. Parsons has authorized each State Hospital to send a physician to the Harlem Valley State Hospital for such instruction.

NEW YORK STATE JOURNAL OF MEDICINE

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EDITORIALS

Things to Know

Some physicians are apparently unaware of the fact that, in the capacity of employers, they come within the provisions of the Social Security Act. Agricultural workers and household servants are exempt, but chauffeurs, secretaries, and office assistants (clerical and nursing) are not. Physicians who have failed to report employees falling in any of the included categories should immediately inquire of their local postmaster how to make good the omission.

The old age benefit provisions of the Social Security Act take effect with the New Year. The first levy is on January wages, and the employer must make the required payroll deduction every week, fortnight or month, according to the interval of payment. The employee's contribution, plus the employer's tax, must be forwarded monthly to the local collector of internal revenue. Regulations obtainable at the Post Office and local branches of the Internal Revenue Bureau describe the records employers must keep, the information required on returns and all other essential details.

The physician in private practice, as an "independent contractor," is not subject to the employee's tax (or eligible

for benefits). Those employed on a salary basis, whether part or full time, are however considered employees and must use Form SS-5 to apply for "account numbers." Their salaries are subject to deduction of the employee's tax and their employers must pay a corresponding sum in their behalf.

The aversions of physicians to the clerical routine of filling out forms is well-known and understandable. When such requirements are law, however, prompt and careful compliance makes it easier for the practitioner as well as the state.

Every Doctor's Business

The assembly of the State Legislature this year should give the signal for physicians throughout the state to rally for effective political action. In spite of the President's recent assurances to the medical profession in regard to its role in the formulation of national health policies, there are many indications that the advocates of obligatory prepayment for sickness are endeavoring to force their program through by means of organized propaganda designed to create the impression of a public demand for state controlled medicine.

Heretofore New York has been quick to follow Washington's lead in social reform. In view of the present ascendancy of professional welfare workers in the national capital, there would undoubtedly be a disposition to return the compliment. The enactment of a compulsory health insurance act in New York would greatly stimulate the movement for national legislation along the same lines. Before the country has time to grasp their significance, a beginning trickle of such laws is apt to become a flood, sweeping before it the high standards of private medical practice and the incentives, opportunities, and initiative of the private practitioner.

It is part of the American temperament to legislate in haste and repent at leisure. National Prohibition furnished a notorious example of this trait. The present Social Security Act and tax on undivided profits are equally pertinent cases in point. Both these laws were passed without sufficient study—legislative sacrifices on the altar of political good intentions. Both will require extensive revision to make them compatible with fairness and good sense. Meantime their vicious features are the law of the land.

This is contrary to the scientific method which investigates thoroughly and applies new theories only after they have given convincing proof of their safety and effectiveness. Perhaps that is one reason why medicine has gone so far ahead in the past fifty years while politics has, to be charitable, stood still.

Physicians were not greatly interested in politics as long as politicians steered clear of medicine. Today, however, when every legislative session holds a potential threat to the independence and integrity of medical practice, it is the practitioner's duty to keep informed of legislative activities and muster all the political influence at his command to defend the security of his profession and the public health.

Extension of Diphtheria Immunization

The public and the medical profession as well have reached the stage where they view the decrease in the number of diphtheria cases as a matter of course. The intense activity which had been required to bring this about is often overlooked. That we must still be as vigilant as ever is brought home to us in a report of Anderson, Goldsworthy, and Ward.¹

They studied 184 cases of a severe form of diphtheria caused by the *Corynebacterium diphtheriae*. This grave form of the organism produces a malignant variety of the disease which does not yield to antitoxin. It is believed that the grave type either produces more toxin or forms it more rapidly so that a lethal dose is absorbed before antitoxin is injected. In one instance in their series of cases, death occurred despite the intravenous administration of 100,000 units within twenty-four hours after the onset of the symptoms.

They know of no case where a Schick-negative patient died from diphtheria. This is a strong and convincing reason for continued efforts in prophylactic immunization. We must not place all our faith in antitoxin alone, since diphtheria can assume a form which will not respond to it. It is with immunization that our chance of conquering the malignant type of this disease rests.

Pneumonia Control

Elsewhere in this issue [p. 80] is a reprint of the pamphlet issued earlier in the year by the State Department of Health entitled "Medical Care of Pneumonia." In it are to be found all modern methods used in the treatment of pneumonias. With the time of the year rapidly approaching when the acute upper respiratory diseases will reach their peak,

¹ Anderson, P. M. Goldsworthy, N. E. and Ward, H. K. *Med J of Australia* 2 350, 1936

the Health Department, with the cooperation of our State Society, is placing all available knowledge on this subject before the profession

While the pneumonia problem still awaits solution, our understanding of the question has been furthered. If we are to reduce materially the mortality attendant upon this disease, we must familiarize ourselves concerning all the recent advances in the prevention and treatment of the pneumonias. The problems of prophylaxis, oxygen therapy, serum therapy, should be thoroughly mastered and the indications for the various modes of treatment understood.

In its Pneumonia Control Program, the Health Department of our state not only places its available data at the disposal of the profession but in addition offers its facilities for the serum treatment of Type I pneumonia.

CURRENT COMMENT

"AMERICA DOESN'T GIVE A DAMN" is the title of an article by the caustic Mr. Channing Pollock in the November issue of the *American Mercury* from which we quote at some length. "A people capable of righteous wrath or even capable of unrighteous wrath—may save themselves on the brink of the precipice. But every people satisfied with bread and circuses have fallen into the hands of a Caligula, a Mussolini, a Hitler, or a Stalin. Apathy is the most unmistakable symptoms of physical, mental, and national breakdown. Men die of hardening of the arteries, nations of softening of the spine. The process is always the same—a simple, vigorous race fighting for existence, acquiring luxury, becoming enervated and decadent, learning to live without labor, bartering its liberties for governmental largesse, and finally passing from the hands of domestic tyrants into those of foreign tyrants. This is the history of Rome, of Athens, of Carthage, of Persia, of Spain, the age-old record forever being played on new phonographs ***"

Speaking of politicians, the author claims that "For nearly four thousand years, politicians have remained the lowest form of animal life."

In conclusion he states that "Few democracies have survived more than two hundred

years and this is not a propitious time for democracy." A democracy militant and alert and simple may survive—"but not a democracy more interested in golf than in government, in lotteries than in learning *** America can slide easily into Communism, Fascism, or a combination of both. If it doesn't, soon or late it must face a Fascist world in an armed conflict for which it is mentally, physically, and morally unprepared, in which it won't last as long as the proverbial dog with tallow legs chasing an asbestos cat through hell ***"

"Are we going down, like the *Titanic*, with bands playing and passengers dancing, or are we ready to clear our minds and roll up our shirt sleeves, 'that government of the people, by the people, for the people shall not perish from the earth'?"

"*** OUR CONTENTION *** is that, above and beyond its present progressive efforts to improve the quality and availability of medical care, the organized profession will shortly face the greatest struggle in its history to preserve the economic foundations of its triumphant art and science against a proposal that is at once one of the most idealistic and one of the most tragically impractical 'social welfare' projects ever conceived,—compulsory health insurance.

"One of the most hopeful auguries for eventual success in the coming struggle is the fact *** that when a reasonable, intelligent, unprejudiced person examines both sides of the case for compulsory health insurance, he almost invariably emerges from his study to oppose the proposal. The more light is shed upon it, the more evident its monstrosity becomes *** If Public Opinion eventually 'jells' in favor of compulsory health insurance, it will do so only because the physicians have failed to do their duty,—duty to the public welfare as well as to their profession,—in bringing out the *real issues*."—From an editorial in the December issue of the *Westchester Medical Bulletin*

"SCIENCE COULD STOP TODAY and not do another thing for a hundred years, and government could not catch up with it."—An opinion voiced by Mayor LaGuardia of New York City

"LIKE THE ENDURING PROBLEMS OF PHILOSOPHY which have no permanent solution, but are of necessity posed afresh for each generation in terms of its own deeper and

more inclusive insights, the persistent problems of human relations can be solved only by adjustments which are valid for limited periods of time and for particular cultural conditions. This fact does not, however, render their solution less imperative. Such continuing adjustments are essential to any coherent evolution of society and this is especially true in the field of international relations, upon which rest ultimately the issues of war and peace * * *

"An unbridled and truculent nationalism, such as we have lately seen running amuck in various parts of the world, selfishly claiming everything for itself, spotless virtue along with the rest, conceding neither moral decency nor economic honesty to any other nation—such paranoic nationalism, of which we have had more than a few faint echoes on this side of the water, if allowed its head, will ultimately reduce civilization to a mere shambles, from which nothing but obscene horror can emerge. Yet collective security is something of which officially we will hear nothing, an objective toward which we will contribute nothing, save weak and grudging lip service, and not much of that beyond a few innocuous platitudes. Nominally we desire peace, but we are not willing to pay much for it except in terms of battleships and army corps, which have by the way, no more than our favorite doctrine of isolationist nationalism, prevented our participating in five wars in our century and a half of national existence, and in two cases at least with utterly demoralizing consequences for our subsequent economic life * * *

"Being an incorrigible optimist, I have no personal doubt that we shall discover ways in which we may do full justice to the social and economic necessities of our people without wholly crushing that individual initiative and self-reliance upon which our achievement as a nation has been so largely

founded. But the solution of the problem will require the best intelligence we can command, with the honest co-operation of every class and group, and above all, patience and good will"—The above are excerpts from a speech by James Rowland Angell, President of Yale University, made at the Annual Banquet of the Chamber of Commerce of the State of New York.

"FOR LABOR TO CONSENT to socialized medicine of the European type is for labor to acquiesce to socialization of itself * * *"—One of the "Timely Brevities" to be found in the supplement to the *Bulletin* of the Broome County Medical Society of November 1936

"* * * ANY SCHEME WHICH UNWITTINGLY ENCOURAGES the prolongation of disability by the trouble-making psychopaths and maligners of every kind, or which results in the useless, inefficient and perfunctory professional services of physicians will be a social hazard and not a social benefit.

"If the health insurance plans proposed are prepared as hurriedly and as carelessly as in the case of the social security act, the inevitable excessive costs and disappointments due to failure to avoid obvious pitfalls will add further impetus to the rise in costs of living

"Also, ill-advised and hastily prepared legislation of this sort will add just one more factor encouraging the improvident and ignorant part of the community in its notion that they are entitled to living, with all the trimmings, without any obligations on their own part * * *"—George Hyslop, M.D. wrote the above to the *New York Herald Tribune* under date of December 8, and we believe it well worth quoting

INTERESTING INNOVATION BY QUEENS COUNTY

An interesting innovation by the Medical Society of the County of Queens is the publication in local newspapers of the names and addresses of members in good standing. The Queens Society asked the Executive Committee of the State body if this action would "be considered proper and in keeping with the Principles of Professional Conduct," to which Dr. Peter Irving, State Secretary, replied that the Executive Committee "considered thoroughly" the suggestion, and "considers such publi-

cation entirely in keeping with the Principles of Professional Conduct, and in no way violative thereof." President Dobbins of the Queens Society, remarks "This action by our Society is undoubtedly the most sweeping and progressive method undertaken by any similar Society in an endeavor to eradicate the charlatans, quacks and montebanks who flourish because of the sacro-sanct attitude assumed by a too conservative medical profession"

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked private" All communications must carry the writer's full name and address, which will be omitted on publication if desired Anonymous letters will be disregarded]

The Left Speaks Out

694 Miller Avenue
Brooklyn

To the Editor

Why does the editor of "Across the Desk" bring forth that decrepit and hoary tale of the W P A worker with the osteochondralgia to prove the iniquity of socialized medicine? Must we resort to such puerility to prove our cause? It seems to me that there is dignified evidence enough against socialized medicine without resorting to parlor car nonsense It is our inability to understand the basic problems of the underprivileged which will mitigate against us in our efforts against socialized medicine Perhaps the editor can offer suggestions as to how we can eliminate the 10,000,000 unemployed without resorting to the lethal gas chamber Somebody in Washington who ought to know something about our economic

set up admits sadly that like the poor, the 10,000,000 will always be with us Has the editor any available jobs for the W P A workers? I am sure that they would gladly snap at jobs that would again dignify them as productive human beings with money for food, shelter and a private doctor Why not jokes about a system that allows such a colossal waste of human resources?

The editor would further lead us to believe that nothing rational or intelligent can emanate from the left Thus by inference we are to look to the right for wisdom, honesty, stability, and lower taxes And to prove his contention the editor shows that by the government aiding the poor Southerners with jobs and food, pellagra is on the decline Consistency thou art a jewel

GEORGE S MEISTER, M D

December 6, 1936

VALUE OF THE COUNTY SOCIETY

An editorial tribute to the value of the County Medical Society appears in the Mt. Vernon, N Y, *Argus* It notes that at the annual meeting of the Medical Society of the County of Westchester, which was the 139th such meeting, thereby marking the association one of the oldest in the country, it was announced that membership had increased in 4 years from 482 to 638

That increase, it goes on to say, does not so much indicate a greater number of physicians in the county or any greater necessity for medical care as it indicates the strength of the medical society and the gradual enlargement of scope because of public service

The general public may not be aware that the medical society has grown in its responsibilities to a far greater degree than in its membership To recount a few of the listed forty-four accomplishments reveals the widespread functions

A published bulletin on technical matters, contacts with health, welfare and social agencies, a public information service for

press reference, special news releases of an educational nature, local advisory committees in welfare service, a survey of "specialty services" in hospitals, legislative activities, research, cooperation with parent-teacher associations in pre-school examinations, participation in administration of emergency relief through federal agencies, supplying speakers to lay groups,

Also, cooperation with authorities in prosecution of illegal practitioners, cooperation with clinics, establishment of standards of obstetrical service, standards, also, in professional control of anaesthesia, cooperation in workmen's compensation cases, a collection service to members, legislation in supervision of the sale of proprietary preparations, opportunities for post-graduate training to members

These activities, it will be noted, are principally of two kinds, to the public and to the society's members The latter also serve the public through improvement of the standards and practices of the members themselves

PROCEEDINGS OF THE COUNCIL

Particular attention was accorded by the Council to certain matters of present interest at its meeting on December 10, 1936

Conference with State Hospital Association

The Committee appointed to enter into conferences with the State Hospital Association, reported a successful first conference as follows

"On December 3, 1936 your special committee entered its first conference with a similar committee from the State Hospital Association, and is happy to report that it believes that an entente cordiale has been established which should enable the two organizations to discuss any subject of common interest, even if controversial, in full amity and, therefore, to greatest effectiveness

"It was clearly brought forth in this first conference that both hospitals and physicians have equal need of each other in their combined effort to supply good medical service to the community—not only now, but in any future sociological set-up

"Discussion was held on a number of subjects, some of which led to immediate preliminary accord in principle, and some of which were set aside as open questions. In particular, it was decided that where legislation affecting both hospitals and the profession may be under consideration both organizations should seek conference before a definite legislative stand be taken"

Limitation of Anesthesia to Physicians Only

The House of Delegates, in April 1936, issued a mandate to the Committee on Legislation to secure passage of a bill by the 1937 Legislature, which would restrict the giving of anesthesia to physician anesthetists, but since that time a mass of information has come to hand, which has led the Council to record a contrary instruction for this year, at least. Under the By-Laws of the State Society this action of the Council can only become effective or binding on the Society if approved by a majority of a referendum vote of the House of Delegates, "provided a majority of the House of Delegates vote thereon within fifteen days after the mailing of the question submitted for referendum." The members of the 1936 House of Delegates will receive in due course,

from the Secretary, the question for referendum vote

With the question will be submitted a memorandum, detailing the reasons for this change of front.

Briefly, the New York members of the American Society of Anesthetists and the American Society of Regional Anesthesia presented, through Dr T Drysdale Buchanan and Dr Paul Wood, a suggestion that no bill of the kind be supported this year, if not longer. Their reasons were *first*, that there are at present too few physicians as anesthetists to replace the seven hundred or more nurse anesthetists now giving anesthesia throughout the State, *second*, that many hospitals would be obliged to make difficult, rapid readjustments in service, *third*, that there are many surgeons in the State who are not as yet persuaded of the wisdom of limitation. Delay would give time for all those interested in eventually limiting the administration of anesthesia to physicians, to do some missionary work through the State. The eventual result of such activity it was thought by these gentlemen, would be acceptable legislation at a later date

The Committee on Legislation of the State Society has accumulated information from many sources that appears to prove that such a course of action by the State Society wise

Physicians' Duties Under the Education Law

On recommendation of the Committee on Public Health and Medical Education, the Council will suggest to the State Department of Education that it prepare and issue a pamphlet to all new licentiates—the pamphlet to contain the essential information in regard to technicalities in the Education Law, to be observed by all physicians, particularly in the matters of local registration and annual registration

Physicians' Duties Under the Public Health Law

The Council decided to suggest to the State Department of Health that a revised pamphlet be prepared and issued to all new licentiates—this pamphlet to contain information essential for every physician to know in regard to the Public Health Law and as to the Sanitary Code of New York City

Statement of Proposition No 3 of the Booth Report

This part of the Booth Report, which was adopted by the House of Delegates in April 1933, reads as follows

Proposition No 3

There is in every community a group of people below the "comfort level," on whom the costs of medical care impose a heavy burden. These are self-respecting people of the salaried class in most instances, whose living expenses are met from their weekly earnings. For them the greater part of medical costs comprise charges for hospital and nursing care.

To lessen the burden of hospital and nursing care for this wage-earning group, your Committee recommends the adoption generally of a plan of hospital insurance, whose principles may be stated as follows:

(a) Members of employed groups may receive for the payment of a small annual sum hospital care in semi-private accommodations for a period of 21 days in any one year, such care to include bed and board, general nursing service, x-ray and laboratory examinations.

(b) All reputable voluntary hospitals and some proprietary hospitals be entitled to participate in this plan.

(c) Except in emergencies, all admissions of patients cared for under this plan must be made through the patient's personal physician.

(d) Certificates of membership issued to subscribers shall state specifically that the service does not cover the fee of the patient's physician.

(e) In each community under the supervision of its organized medical group there shall be developed the details of this plan so as to meet local conditions and make it workable.

On recommendation of the Committee on Economics a re-statement was adopted which would rescind sub-sections (a), (b), (c),

(d), (e) of Proposition No 3 above and substitute the following:

(a) Hospital care shall mean provision of bed, board, general nurse service, customary surgical dressings and medicines, and other facilities of the institution not including medical care, as defined in (b).

(b) Medical care shall mean any procedure or service by a licensed physician acting under authority of Section 1250 of Article 48 of the Education Law of the State of New York.

(c) Hospitals making contracts with organizations, acting under Chapter 595 of the laws of 1934—the Insurance Law of the State of New York—shall not implicate themselves with conditions inconsistent with the principles and definitions herewith stated.

(d) The operation of such hospital insurance in any community shall not discriminate against any reputable institution, whether voluntary or proprietary.

(e) Admission of patients for care under the benefits of such hospital insurance shall be only through reference by a private physician. Exemption to this provision shall be made for the exigency of any emergent need.

(f) Certificates of membership in such association shall specifically state that the insurance does not provide for any medical care as defined in (b). Actual wording of the certificate to be approved by the local County Medical Society or Societies.

(g) Every hospital insurance plan operating under the aegis of this Proposition shall develop the details of its operation to conform with such principles and policies as from time to time may be determined by the local County Medical Society or Societies.

(h) When it is so desired by the local County Medical Society satisfactory representation from the membership of the local County Medical Society on the Board of Management of the hospital insurance shall be arranged.

Income Tax Deductions for Charitable Service of Physicians

A suggestion from a member of the State Society that some effort be made to secure to physicians the right to make deductions for charitable work, such as is performed in hospitals and dispensaries, was considered. The Committee on Economics held the suggestion impractical of accomplishment to a full measure of relief, and the Council decided to take no action.

Practice of Psychology

The Association of Consulting Psychologists, Inc., approached the State Society in the effort to get its backing for a law which would define the practice of psychology and set up a mechanism for certification of those adjudged fit to practice under a new law. The Law as proposed defined the practice of psychology in the following words:

"The practice of psychology" is defined within the meaning and intent of this article as the application of the principles and technics of the science of psychology to the measurement, evaluation, explanation, interpretation, motivation, guidance, education (or) re-education of human behavior.

The Public Relations Committee met with eminent members of the teaching staffs of several universities, with the Commissioner of Mental Hygiene of the State of New York, with Dr Israel Strauss of the Board of Psychiatric Examiners and Dr Lloyd H Ziegler of Albany. It was considered by this Committee that the Law as proposed could not fail to invade in some measure the practice of medicine as defined by the Medical Practice Act. It, therefore, recommended that backing be not

given to this proposed legislation in its present form, and the Council adopted this recommendation

Syphilis Control

A request from Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, that a committee be appointed to advise with him and with the Commissioner of Health in New York State led to authorization of the President to designate such a Committee. It was Dr. Parran's hope to have suggestions from such a Committee after review of the available information on the syphilis problem in this State, with any recommendations that seem desirable.

Dr. Parran enumerated the following questions for solution in syphilis control

1 The system of notification most suitable to physicians, patients, and health agencies

2 The additional laboratory facilities needed for diagnosis of syphilis

3 The policy recommended in the distribution of antisyphilitic drugs

4 The adequacy of free treatment facilities for those who cannot pay physician's fees

5 The nature and extent of the additional facilities needed

6 The physician's part in the application of epidemiologic methods for the control of syphilis

7 The possibility of developing minimum standards of treatment for early syphilis

8 The availability of hospital beds for treatment of cases needing hospitalization.

9 Methods for the more adequate prevention of congenital syphilis through recognizing and treating the disease among pregnant women.

10 The lines along which informative and educational programs should be conducted.

11 The possibilities of prophylactic measures being taught and administered through physicians' offices, outpatient hospital services and clinics, with the thoroughness and precautions governing Army and Navy procedures

The President designated the Committee on Public Health and Medical Education to represent the State Society in this matter

PETER IRVING
Secretary

BEAUTY AIDS THAT "KNOCK YOUR EYE OUT"

We hear sometimes of beauty so stunning that it "knocks your eye out." Now it seems that some of the beauty preparations do the same thing. Indiscriminate use of weight reducers, hair dyes and depilatories is causing serious injury to eyesight in the United States, according to a warning by Dr. Walter I. Lillie, in the current issue of *The Sight-Saving Review*, quarterly journal of the National Society for Prevention of Blindness.

Case stories of eye tragedies among his patients are cited by Dr. Lillie, and he gives the trade names of the "beauty products" which the victims used. Dr. Lillie is a practicing ophthalmologist in Philadelphia, and a member of the Department of Ophthalmology of the Temple University School of Medicine there. Writing on "Cosmetics Detrimental to Vision," he says:

Individuals who use cosmetics are unwittingly subjecting themselves to visual dangers. We are all potential victims, because the present antiquated Food and Drug Act, passed in 1906, only requires the manufacturers of food and drugs to properly label their products but does not penalize the acts of adulteration and misbranding. False and fraudulent therapeutic claims must be proven before the product can be removed from the market.

These two little words "and fraudulent" compel the Government to prove that the manufacturer knows the customer is being swindled.

This has prevented any adequate control over quack or dangerous remedies. Extraneous advertising of these products through the news papers, magazines and radio is without Federal control, and because of this we are constantly reminded of the wonderful benefits and cures that will be derived from their use.

Today the billion-dollar-a-year cosmetic industry is not subject to any Federal regulations unless the labels bear medicinal claims, which, of course, never occurs. There is no legal way to protect the public against dangerous cosmetics. Toilet preparations which are known to be harmful by the medical profession cannot be taken off the market regardless of any disfigurement or injury they may inflict. Although poisonous cosmetics that ravage their users by paralyzing, blinding or disfiguring them are the exception rather than the rule, the medical profession should be alert to the possibilities and probabilities of visual and bodily damage which may result from their use.

The untoward visual effects may be temporary or permanent, depending upon the nature of the ingredient or the amount used, and the tolerance of the individual. The eyes are usually affected in one of two ways, either through direct contact with the preparation or indirectly through the absorption of the poisonous ingredient in the body. Three groups of cosmetics have the potentiality of producing severe ocular damage, namely (1) weight reducing preparations, (2) hair dyes, and (3) depilatory ointments.

WORKMEN'S COMPENSATION

Revised Rules and Regulations Promulgated by the Industrial Commissioner covering Chapters 258 and 930 of the Workmen's Compensation Law

1 Medical Compensation Boards must pass upon the application of a physician within sixty days and notify the Industrial Commissioner of its action. If such Board fails to recommend that a physician be authorized to render medical care under Chapter 258 the physician may appeal to the Industrial Council, as provided in clause (G) of sub-division four of section ten-a of the Labor Law, who thereafter has sole jurisdiction.

2 Removal of physicians from panels and revocation of licenses of medical bureau, Section 13-d.

The recommending compensation boards shall investigate, hear, and determine all charges of professional, or other misconduct by any authorized physician or by any licensed compensation medical bureau under rules and procedure prescribed by the Industrial Council as follows:

(a) The physician or Medical Bureau accused of misconduct shall be given twenty days notice of the charges in writing including a bill of particulars setting forth the specific section and subdivision of the law violated and the time, date, and place of the hearing.

(b) Careful records shall be kept of the minutes of the hearing.

(c) These records, together with the report of the Board of the Medical Society or other Board, with its findings shall be submitted to the Commissioner.

Appeals filed by physicians and medical bureaus with the Industrial Council shall be referred to the sub-committee designated by the Industrial Council to ascertain the facts and report its findings to the council for final action.

(a) The physician or medical bureau may file an appeal with the Industrial Council from the decision of the Medical Society or other Board.

(b) The physician or medical bureau appealing and the Medical Society or other Board whose decision was appealed from, shall be notified in writing indicating the time, date, and place of hearing.

(c) The physician or medical bureau may be represented by counsel.

(d) Accurate stenographic or stenotype minutes of the hearing shall be kept for the files of the commissioner and Industrial Council.

3 When a physician in association or in co-partnership with another physician or physicians, or through another physician or physicians as employees or agents, main-

tains and operates one or more offices principally for the treatment of injured claimants under the Workmen's Compensation Act, he shall secure a compensation medical Bureau license.

4 All reports, except form C-104 filed by attending physicians and specialists must be verified before a Notary Public or a Commissioner of Deeds, to insure their value as prima facie evidence in a compensation case.

5 All specialists, consultants, etc. shall submit a report of their findings in triplicate, one copy to the Industrial Commissioner, one to the attending physician, and one copy to the employer or insurance carrier. If the specialist acts as attending physician, he shall file a forty-eight hour report with the employer or carrier and with the Industrial Commissioner.

6 All medical reports filed by attending physicians and specialists must contain the the authorization certificate number and code letters.

7 When it is necessary for the attending physician to engage the services of a specialist, consultant or a surgeon, or to provide for physiotherapeutic procedures costing more than twenty-five dollars or to provide for x-ray examinations and special diagnostic laboratory tests costing more than ten dollars, he must secure authorization from the employer or insurance carrier or the Industrial Commissioner. Such authorization is not necessary when special services are required in an emergency or when authorization has been unreasonably withheld. Section 13-A-5.

8 The authority of an employer for the services of a specialist, in excess of a \$250 fee, applies only to the necessity for such services, but the choice of such specialist is entirely within the jurisdiction of the injured worker.

9 When it is in the interest of the injured employee, and where an x-ray is required and it is impossible to secure the services of a qualified x-ray specialist, the Board of the local County Medical Society may designate a specially qualified individual to take x-ray pictures under the supervision of the attending physician. The attending physician, however, shall render a bill for such service to the employer. This in no

way, however, deprives the employer or insurance carrier from having other x-ray pictures taken if they so desire

10 A physician authorized to treat workmen's compensation cases, when requested to supersede another physician, must, before beginning treatment of such patient make reasonable effort to communicate with the attending physician to ascertain the patient's condition. The superseding physician must also advise the attending physician of the name of the person who has requested him to assume care of the case and state the reason therefor. If the second physician cannot contact the attending physician, and the claimant's condition requires immediate treatment, the said physician should advise the doctor previously in attendance within forty-eight hours that he now has the patient in his care. The preceding physician shall supply the succeeding physician with a complete history of the case.

11 In the event of a serious accident requiring immediate emergency medical aid, an ambulance or any physician may be called to give first aid treatment.

12 A registered physiotherapist may treat workmen's compensation cases at his own office or bureau when the case is referred to him by an authorized physician. The authorized physician should, however, give written directions to the physiotherapist as to the kind of treatment to be rendered and the number of treatments to be given. These directions must be given in writing by the physician and shall constitute a part of the record of the case.

13 Bills for x-rays and consultations shall be submitted for payment directly to the employer or carrier by the specialist rendering the service. These services must be authorized in writing by the physician in attendance.

14 Physicians treating claimants in hospitals may secure the signature of claimant for authorization to obtain copies of any necessary hospital records.

15 The physician in attendance in public hospitals must be the judge as to when the

"emergency status" of the case has terminated. In case of a dispute the matter shall be referred to the Compensation Board of the Medical Society of the county in which the hospital is located, for immediate decision.

16 Medical inspectors of insurance companies shall be admitted to hospitals or other institutions where injured employees are confined, upon proper identification, for the purpose of complying with Section 13-J.

17 A hospital may not secure a license to operate a medical bureau to render care to compensation cases.

18 No license is necessary to operate a first aid station for emergency treatment but no subsequent treatments are to be rendered by any one other than a qualified physician.

19 No advertising matter of any nature, on compensation work, by authorized physicians, medical bureaus or laboratories shall be permitted.

20 No insurance company or self insurer may reduce the size of notice to employees (Form C-105) which is to be placed in all places of employment covered by the Act, unless such permission is granted on application to the Industrial Commissioner.

21 Section 13-f-2 applies only to the physician selected by the claimant to treat him as provided by Section 13-a. Such doctors are entitled to a fee for attendance at a hearing when subpoenaed by any party in interest or when directed to do so by a Referee or when produced by an insurance carrier or employer.

22 Hospitals shall render bills for board and room accommodations, medical and surgical supplies, nursing facilities and routine laboratory service. Bills for all services rendered by physicians in hospitals, including physiotherapy, x-ray, pathology, anesthesia, medical, and surgical care, etc shall be made out separately and paid directly to the doctor rendering the service. Proper reimbursement by the physician to the hospital for materials and the use of facilities will not be in violation of Section 13-D-2 (e).

Rules governing recommending of authorized physicians by insurance carriers and employers and the procedure to be followed by medical inspectors and consultants

23 The supplying of names of authorized physicians by insurance carriers to their policy holders is in contravention to Section 13, as amended by Chapter 258 of the laws of 1935. Such policy holders and all employers may secure a list of all authorized physicians in the vicinity of their places

of business by applying to the Industrial Commissioner of the Department of Labor.

24 Any physician who acts in the capacity of medical inspector for an insurance carrier or employer in the case of an injured employee under the care of another physician shall not participate in the

treatment of said injured employee except in the operation of a rehabilitation clinic or bureau under Section 13-j of the Law. Nothing herein contained affects the right of transfer as provided in Section 13-a (3)

25 When a medical examination is had under Section 13-a (4) it shall be by a qualified physician at a place reasonably convenient to the claimant and in the presence of the claimant's physician, if in the latter's opinion his presence is necessary. A duplicate copy of all notices of requests

for examinations must be sent to the attending physician

26 No physician designated by an insurance carrier or an employer as a consultant in the case of an injured employee, shall subsequently participate in the medical or surgical care of said injured employee, except with the written consent of the injured employee and his attending physician. Nothing herein contained affects the right of transfer as provided in Section 13-a(3)

Rules governing the licensing of and operation of compensation medical bureaus

27 The character and frequency of accidents, the number of employees in a given plant and the availability of qualified medical care in the immediate vicinity of the place of employment should be considered in relation to the authorization of an employer's compensation medical bureau

28 The bureau should be located in the industrial plant or in the immediate vicinity

29 The question of the necessity of the presence of a physician during working hours, or the availability of a physician at stated hours should be determined by an inspection of the plant to ascertain the nature of the hazards and the frequency of accidents

30 The bureau shall be well housed with sufficient space, light, and air and shall conform to reasonable sanitary requirements. Proper facilities in the form of personnel for assistance in emergencies, instruments, sterilizers, dressings, drugs, shall be available at all times and in amounts proportionate to the size of the plant and the number of employees. Such facilities shall be adequate for more than mere emergency care and for the more severe type of industrial injury

31 A bureau license may be given for a stated project which, because of the hazards of the project and the frequency of acci-

dents, requires continued medical care and such license shall be for the life of the given project only. In such cases all employees of all sub contractors shall be covered by the license.

32 No license shall be issued to an employer to cover any but his own employees except as indicated in Rule 31

33 First aid stations—No license is required to operate a first aid station by an employer of labor. Such first aid or emergency station should be properly equipped for first aid in accordance with the type of hazard encountered at the particular place of employment.

34 Form C-105, a notice of the rights of an injured employee and the responsibilities of the employer, shall be posted in each compensation medical bureau and first aid station

35 All compensation medical bureaus operated by summer camps and other institutions wherein such camps and institutions are operating for a profit shall be charged a license fee of \$25.00 per annum for the operation of such medical bureaus which are in operation for six months of the year or less

ELMER F. ANDREWS
Industrial Commissioner

December 1, 1936

TOKYO FOR STERILIZATION

A dispatch from Tokyo, says the Japanese Government plans to submit to the next meeting of Parliament a bill for sterilization of the insane, epileptics, confirmed alcoholics and persons of known criminal tendencies

Operations would be performed only after requests of persons affected, or of

insane asylums, penitentiaries and social relief institutions. After the requests a committee consisting of a judge, a government representative and two physicians would decide the question finally

The measure is similar to laws effective in Germany and some Scandinavian countries

PNEUMONIA CONTROL PROGRAM

Foreword

This pamphlet has been prepared under the joint auspices of the Committee on Public Health and Medical Education of the Medical Society of the State of New York, the New York State Department of Health, and the Advisory Committee on Pneumonia Control of the New York

State Department of Health composed of the following physicians Donald B Armstrong, Russell L Cecil, Rufus I Cole, Thomas P Farmer, Clayton W Greene, Peter Irving, George M Mackenzie, O W H Mitchell, George H Ramsey, Clarence L Scamman, Augustus B Wadsworth, and Arthur W Wright

Clinical Aspects of Pneumococcus Pneumonia

Definition

Lobar pneumonia is an acute infectious disease characterized by a massive inflammatory exudate into one or more lobes of the lung. The dominant clinical features are chill, fever, pain in the chest (or side) and cough, with the expectoration of viscid, rusty appearing sputum. In about 96 per cent of cases this form of the disease is caused by the pneumococcus. Consequently the term lobar pneumonia has come to be considered practically synonymous with the term pneumococcus pneumonia though the latter is actually more inclusive.

Bronchopneumonia or atypical pneumonia is also frequently caused by the pneumococcus, usually one of the so-called higher types, but may be due to streptococcus, influenza bacillus or other infection.

Since the bacteriology rather than the morbid anatomy of pneumonia is coming to be recognized as of the greater significance the present method of classification on an anatomical basis seems somewhat misleading and could advantageously be changed to emphasize the etiological agent.

Incidence and Distribution

In New York State pneumonia in its various forms causes a greater loss of life than any other communicable disease and is exceeded as a cause of death only by heart disease and cancer. While these two latter are diseases for the most part, of late life, pneumonia takes about 50 per cent of its toll during the ages of greatest useful-

ness. The annual loss of life from this cause in New York State is about 12,000.

Pneumonia is essentially a disease of winter and early spring. The four months from January through April include about 75 per cent of the cases in any normal year.

Etiology

The predisposing causes are recognized as being those conditions which tend to lower individual resistance or otherwise increase susceptibility and enable the causative microorganisms to gain a foothold. Specifically these are the common cold, grippé, influenza, measles, and whooping cough. In addition there are a number of less well established but probably, nevertheless, important factors such as extreme fatigue, malnutrition, chilling, and chronic alcoholism, which seem to contribute to lowered resistance.

The inciting cause is infection with virulent pneumococci or other microorganisms, presumably occurring during a period of susceptibility.

Among pneumococcus pneumonia reported in the past Type I has been responsible for about 33 per cent of all cases, Type II for about 23 per cent, Type III about 9 per cent, and Types IV to XXXII for the remainder. Type I pneumonia is particularly prevalent during early adult life but gradually yields to Type III as the most common single type in later years.

Epidemiology

Not a great deal is known about the epidemiology of this disease but recent studies and clinical observations support the

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belief that pneumonia is a definitely communicable disease. This is felt to be particularly true of infections caused by pneumococcus Type I or Type II.

It is somewhat problematical whether or not isolation can be instituted, practically, before much of the damage has been done. Reasonable precautions, however, should be observed especially with respect to the care of respiratory secretions.

Studies of the occurrence of pneumococci carried in the mouths and throats of normal persons have been made with considerable care. These studies have shown that pneumococci of the higher types are frequently present while Types I and II are rarely encountered except in cases of actual pneumonia or its complications.

Diagnosis

Clinical. Early diagnosis is essential for adequate treatment. The diagnosis of pneumonia usually can be made upon the history and symptomatology without dependence upon evidence of consolidation or other physical signs in the chest.

The significant symptoms are a chill, sudden elevation of temperature, pain in the chest (or side), and a blood-tinged or rusty sputum. The occurrence of any of these singly or in combination, even though in varying intensity, must seriously raise the question of pneumonia. A preceding cold or attack of gripe is highly suggestive. The presumptive diagnosis so made may be positively established if prompt bacteriological studies show a Type I or Type II pneumococcus, the finding of other microorganisms being suggestive but not equally pathognomonic.

Physical signs in the early stages of pneumonia may be entirely absent. When they do appear the first signs are generally slight dullness to percussion, diminished breath sounds and possibly a few moist râles over the affected lobe. Eventually, but often not until the second or third day, the classical signs of consolidation may be expected to appear over the whole or part of the lobe involved.

Bacteriological. Thirty-two specific types of pneumococci have been identified up to the present time. These thirty-two types include practically but not quite all pneumococci known to exist. The important types of pneumococci, if present, can

usually be identified in about one-half hour from the time the sputum specimen is received at the laboratory by the use of the Neufeld method of typing. This method, which is done directly on the sputum specimen, offers a sharp contrast to the time-consuming methods formerly employed.

Strict attention should be given to the method of collecting the specimen, care being observed to obtain sputum raised from the bronchial passages rather than saliva or nasopharyngeal secretion. The specimen should be collected in a clean, or preferably sterile, container (a supply of which may be obtained from the nearest approved laboratory and kept on hand) free from antiseptics, preservatives or any other contaminating material and sent to the nearest laboratory approved for sputum typing without delay. Severe pleurisy may cause the patient to be unwilling to make the effort necessary to raise a satisfactory specimen. Under such circumstances, the application of local heat to the chest, a firm binder of strapping and an appropriate anodyne will often make better cooperation possible. Valuable time may be saved, especially at night or on holidays, by telephoning the laboratory so that it may be prepared to make the examination immediately upon receipt of the specimen.

In the absence of a satisfactory sputum specimen, as is often the case with children, an accurate typing can sometimes be obtained from mucus swabbed from the back of the throat during the act of coughing. Occasionally such a specimen will prove adequate for rapid typing, but cultural methods are likely to be required. The consequent loss of time together with the uncertainty of this method makes serious effort to obtain an actual sputum highly desirable.

A blood culture will occasionally prove the first or only means of making a bacteriological diagnosis.

Lung puncture, a technique of experimental value, is not generally applicable in private practice.

Roentgenological. X-ray offers an invaluable aid in doubtful cases and in the diagnosis of complications but should seldom be necessary in making the initial diagnosis.

Differential Diagnosis. Most difficult of distinction, if one is on the alert for an early diagnosis on the basis of symptoms, is severe gripe or influenza. Tubercu-

losis, especially in pneumonic form, can often be picked up by a careful history and sputum examination, but one may have to depend upon clinical observation over a period of time. Pulmonary infarct, pleurisy (from other causes), abscess, atelectasis, coronary thrombosis, may all simulate pneumonia in a number of respects, but each has characteristics that should distinguish it. Acute appendicitis and occasionally other acute abdominal conditions may lead to considerable difficulty in diagnosis. The leukocyte count may be of some value when the diagnosis is difficult, an excessively high count being considered suggestive of pneumonia.

Treatment

General Care The fundamental purpose of general treatment should be to obtain the maximum of rest compatible with adequate nutrition and elimination.

Symptomatic treatment may be required notably for the relief of pain, restlessness, excessive cough, tympanites, anoxemia, delirium, urinary retention, and excessive diaphoresis during the acute stage of the disease.

Relief of pleuritic pain is of great importance since the rapid and shallow respirations and severe suffering will quickly exhaust the strength of even the most robust patient. Often a tight chest binder or strapping, and codeine will serve to bring relief. Morphine may be used safely in the early stages, but too much morphine is undesirable on the ground that a totally abolished cough reflex favors bronchogenic spread of the infection by retained moisture and secretions. The barbiturates are usually effective in combating restlessness even in the presence of a moderate degree of delirium. If the sputum is excessively tenacious an expectorant may save the patient much loss of strength through hard coughing.

During the acute febrile period the patient should be maintained on a liquid diet avoiding such foods as are recognized as being gas forming or constipating. In the absence of cardiorenal complications the total daily fluid intake, in an adult, should be over rather than under three liters.

Abdominal distention often may be mimicked by the use of a small saline enema daily and a proper diet. Certain authorities

have recently stated that sodium chloride is of value in preventing tympanites. It is also claimed that excessive diaphoresis may be prevented by the same means. The usual amount given daily is five to ten grams, in capsules.

If distention appears it must be relieved promptly since increased intra-abdominal pressure may embarrass both the respirations and circulation. The use of routine measures such as a soft rectal tube, turpentine stupes, hypodermic injection of pituitrin (surgical) or physostigmine usually are sufficient. In some persistent cases a high colonic irrigation will prove effective. Occasionally, however, a case is encountered which fails to respond to these or even more drastic measures. In such instances the distention may be gastric or upper intestinal and marked relief sometimes may be obtained by the introduction of a nasal (Levine) stomach tube well into the stomach or duodenum. The tube may be left in place if necessary and conveniently used for giving nourishment and fluids, particularly in a comatose or otherwise uncooperative patient.

Anoxemia, cyanosis, and early delirium may be markedly relieved by adequate oxygen administration. Where an oxygen tent or chamber is available this presents the ideal method of administration. Recently an open top oxygen box has been devised which is both efficient therapeutically and economical to own and operate. When such facilities are not at hand fairly satisfactory results may be obtained by supplying the oxygen through a nasal catheter or tube. Funnels and masks as methods of oxygen administration have not proved satisfactory. The optimum oxygen content is generally considered to be between 40 per cent and 60 per cent by volume. Despite all assertions of various agencies to the contrary the only way that a safe oxygen content can be maintained in a tent or chamber is by regularly spaced analysis and appropriate regulation of the oxygen flow. Such analysis requires very little equipment and may be easily performed by an intelligent attendant. Once started oxygen therapy should be continued with only the minimum interruptions essential to nursing care until after the crisis or lysis has occurred.

Evidence of cardiac embarrassment or failure should be treated in the appropriate

manner The routine use of digitalis, however, has not proved of value Most authorities now recommend its use only in the presence of some pre-existing cardiac incompetence, sudden irregularity or other evidence of impending failure

For general circulatory failure the usual procedures should be followed Too much should not be expected of any form of treatment at this stage however The use of epinephrine, caffeine, and intravenous glucose are perhaps of most value, but seldom can more than a few hours delay of death be thus attained

The chronic alcoholic will certainly require an appropriate sedative such as paraldehyde, and a certain amount of whiskey at regular intervals Alcohol is not recommended in treatment by most authorities in this country, excepting under these circumstances

Specific Treatment * The effectiveness of Type I antipneumococcus serum has been established definitely When given early and in adequate amounts this serum has been shown to reduce the mortality from Type I pneumonia by 50 per cent to 66 per cent.

While the probable efficiency of antiserum for Type II pneumonia and some of the higher types must be admitted, their value has not been as widely accepted as has that of Type I serum and their use must still be considered as somewhat experimental There would seem to be no theoretical reason why, with but few exceptions, specific antisera for most of the types of pneumococci commonly encountered can not be perfected ultimately All attempts to produce a serum effective against Type III pneumonia, however, have been totally unsuccessful to date

It is important to remember that the administration of antipneumococcus serum early in the disease is essential if the most favorable results are to be anticipated This statement is to be interpreted as meaning time in terms of hours not days, after the initial symptoms of onset It is generally felt that a good result may be looked for in cases treated within 24 to 72 hours, and

that up to 96 hours some value may attend the use of serum Evaluation of its effect after 96 hours is extremely hazardous but competent clinical opinion holds that occasionally a life may be saved by serum treatment even this late in the disease

The immediate effects of early and adequate serum treatment are apparent in a critical fall in temperature, relief of dyspnea and cyanosis, relief of intense pleurisy, and disappearance of the symptoms of toxemia in general In cases treated after the disease has been of more than 72 hours' duration favorable results may often be obtained but will generally appear more slowly and are not comparable to those following early treatment In cases with a mild or moderate bacteremia, sterilization of the blood stream, at least temporarily, usually is accomplished

In view of the diminishing effectiveness of serum with increased duration of the disease, pneumonia should be regarded as a true emergency Not only should the value of rapid sputum typing and serum administration within the first few hours of onset be appreciated, but also the relative ease with which this may be accomplished in most communities today should be recognized.

Specific serum treatment of pneumonia cases which have not been typed may be considered justifiable only under unusual circumstances It should be appreciated that serum administration is a major medical procedure which is attended by some risk and should not be attempted unless specifically indicated by typing

Only under such circumstances does the physician have assurance that the procedure will diminish rather than add to the existing hazards of the disease Furthermore serum is so costly that its unwarranted use constitutes a considerable economic waste

There does not seem to be any significant reason for confining serum treatment to persons within certain age groups other than that Type I pneumonia is supposedly infrequent in the very young and the very old Although there are certain difficulties with respect to satisfactory typing and technique of serum administration in children which tend to discourage its use, these can hardly be considered acceptable reasons for withholding a valuable therapeutic agent and usually can be surmounted When serum is given to children an adjustment of the

* For a more detailed discussion of this subject the reader is referred to a recent handbook "Lobar Pneumonia and Serum Therapy" by F T Lord M D, and R Heffron, M D, published by The Commonwealth Fund, New York.

amount on the basis of body weight would seem to be a safe rule

With respect to the technical administration of serum, the following points should be kept in mind

History A history should be taken for evidence of sensitivity. A story of hay fever, asthma or other allergic symptoms indicates caution in testing for specific sensitivity to horse serum or in subsequent serum administration, but need not preclude its use unless these symptoms are of an unusually severe character

Tests for Serum Sensitivity The ophthalmic and the intracutaneous tests should both be employed. If reliance is to be placed on one test only, the latter is preferable. For the ophthalmic test a drop of 1:10 dilution of normal horse serum is instilled into the conjunctival sac of one eye. Conjunctival injection accompanied by itching and burning occurring within fifteen or twenty minutes constitutes a positive reaction indicative of marked sensitivity, and is generally interpreted as a definite contraindication to serum therapy. A violent local reaction may be controlled by the instillation of a drop or two of 1:1000 epinephrine solution

The intracutaneous test is considered somewhat more delicate and difficult of interpretation. This consists of the intracutaneous injection, usually on the flexor surface of the forearm, of 0.1 cc of a 1:100 (sometimes 1:10) dilution of normal horse serum. Normal horse serum seems preferable to the therapeutic serum and is generally provided in the package with it, but in emergencies the therapeutic serum—diluted 1:10 with physiological salt solution—may be used. A positive intradermal test is indicated by a wheal and erythema reaction appearing within twenty minutes. In a case showing a violent reaction to this test serum administration is not advisable. With a mild or slight reaction desensitization may be attempted but should not be undertaken unless proper facilities are at hand

It is important that the patient be watched to prevent rubbing of either the eye or the arm during the interval of these tests since false reactions may be produced if this occurs

Technic of Serum Administration In the absence of evidence of sensitivity by the

above tests serum administration can usually be safely undertaken. The serum dosage, advisability of dilution with salt solution, etc., may vary slightly with different products but the directions accompanying each vial are usually complete and should be followed closely

New York State Serum Concentrated Antipneumococcus Serum, Type I (New York State Department of Health) is now available to physicians throughout the State exclusive of New York City*. The serum is distributed without cost through many of the district laboratory supply stations. A revised list of these supply stations and also of laboratories approved by the New York State Department of Health, including those approved for sputum typing, has been prepared. This list will be mailed to all physicians registered within the jurisdiction of the State Department of Health

The serum is dispensed in vials containing 20 cc (25,000 units). In the package with each vial of serum there is also provided a small vial of normal horse serum, diluted 1:10 in sterile physiological salt solution. This is for testing for sensitivity to horse serum. Also with each two vials of serum the physician can obtain, upon request, a vial containing 10 cc of sterile physiological salt solution. This is provided for further dilution of the horse serum for the intracutaneous test and for rinsing water out of boiled syringes and needles before serum is given. Water in the syringe or needles may coagulate small amounts of serum protein and consequently cause the plunger to stick, or the needles to plug, or may form particles dangerously large for intravenous injection. The salt solution may also be used for dilution of the first small dose of serum given intravenously

This serum is effective, if used early, in the treatment of Type I pneumococcus pneumonia. Its use is not advised for other types of pneumonia or in untyped cases. In the majority of uncomplicated cases, treated within the first seventy-two hours of the disease, the total amount required is about 100,000 units or 80 cc. This is usually given in three injections, the first, actually only a test dose, consisting of 1 cc of serum di-

* Serum in New York City is provided by the Bureau of Laboratories of the City Department of Health

luted with 5 cc to 10 cc of sterile physiological salt solution to facilitate slower and safer administration, the second, given in about one-half hour, consisting of the remainder of two vials (39 cc.) and the third, given after an interval of four to six hours, consisting of two more vials (40 cc.) Continued doses of 50,000 units (40 cc.) should be given at four to six hour intervals if the first 100,000 units fails to produce the desired result. It is doubtful, however, that amounts totaling over 200,000 to 250,000 units have any additional therapeutic value and the use of such quantities is not generally recommended.

This serum is prepared for intravenous use only. It may be given either directly, without dilution (save of the initial test dose as recommended) or may be given in variable quantities of salt solution suitable for intravenous use. All serum and salt solution so given should be maintained at body temperature throughout injection and should be administered very slowly, at a rate not in excess of 1 cc per minute on the basis of the amount of concentrated serum present.

The attention of the physician using New York State serum is called to two forms (1) the application form which should be filled in by the physician or messenger before serum is taken from the supply station, (2) the short report form (supplied with each vial), one of which should be fully filled out and returned at the completion of treatment of each case.

It can readily be appreciated that only by means of such records can an adequate evaluation of the extent, character and results of serum treatment be obtained. Not only is such an evaluation of importance to medical progress but it is essential to the continued distribution of such a costly product and will in a large measure determine whether or not the Division of Laboratories and Research shall attempt to expand its facilities for serum production and distribution in the future.

Epinephrine Throughout the process of testing for sensitivity and serum administration, a hypodermic syringe containing 1 cc. of epinephrine solution (1:1000) should be kept filled and ready for immediate use.

Serum Reactions These may be classified under three types for the purpose of discussion.

The *acute anaphylactic* reaction is extremely rare if the proper precautions are observed. The first indication of such a reaction may be a sense of substernal pressure or difficulty in breathing, gradually increasing to frank dyspnea with cyanosis, increasing bronchial spasm and pulmonary edema, or a sudden rise in pulse rate with a decrease in pulse volume, or the occurrence of abdominal or lumbar cramps, or generalized urticaria. Following the initial symptoms collapse and death may occur within a matter of seconds. This type of reaction constitutes an emergency which fortunately is very seldom encountered, but for which the physician should always be on the alert. The immediate cessation of serum injection and prompt injection of epinephrine either intramuscularly or intravenously, as the urgency of the case indicates, may prevent an otherwise disastrous result. The anaphylactic type of reaction may occur within a few seconds to one-half hour or so after the administration of serum, the more violent reactions, however, usually occur within a few seconds or minutes.

The *thermal reaction* is characterized by a chill and fever generally occurring in from one-half to one hour after serum administration. Such reactions are usually self-limited and require only symptomatic treatment. It is wise, however, to watch the temperature closely and if it rises to too high a point to take measures to bring it down since fatalities attributed to such hyperpyrexia have been described. The occurrence of this type of reaction, unless unusually severe, is not considered a contraindication to further serum treatment.

Typical *delayed serum sickness* characterized by fever, urticaria, swollen glands, and painful joints may develop at any time from four to ten days subsequent to injection, even considerably later in some cases. Though it causes the patient a good deal of discomfort, it is not considered serious and generally requires only symptomatic treatment. With the new concentrated and purified serum this type of reaction is much less frequent and milder than formerly.

Nursing Care It is generally conceded that skilled nursing care has favorably tipped the balance between life and death in many pneumonia cases. In pneumonia probably more than any other disease good nursing judgment is essential. The key to

good nursing care and the results it brings is probably included in the one word *rest*. Rest does not mean neglect. It is attained by a delicate distinction between essential and excessive care, which varies with each individual case.

Isolation The fact that pneumonia is, to a certain extent, communicable should be kept in mind. Attention should be given to the safe disposal (boiling or burning) of all respiratory secretions and articles contaminated with them, to protection from direct exposure to the patient's cough, to the use of an apron or gown by the attendants in the sick room, to careful washing of hands after caring for the patient, and to a thorough cleaning of the sickroom, bedding, etc., after the illness. Visitors should be kept out of the room insofar as possible for their own sakes as well as the patient's and, of course, small children and elderly persons should be kept out entirely.

Prophylactic and Therapeutic Vaccines, Treatment with Diathermy or Pneumothorax These and other technics in the vanguard of experimental work, are widely discussed in the scientific literature of the present day. They must be considered matters unquestionably worthy of serious study but hardly sufficiently established for general adoption at present.

Course

Lobar pneumonia will usually proceed to recovery or death in from five to ten days. Recovery may occur either by crisis or lysis. In a recovered case resolution proceeds without any definite rule as to duration. Early and adequate serum treatment should result in recovery by crisis within a few hours. Occasionally, however, recovery by lysis will occur. The course of resolution is not altered in these cases unless serum treatment be given early enough to prevent much consolidation occurring.

Death from acute pneumonia is often difficult to ascribe to its immediate source. General circulatory failure is certainly a frequent terminal event. Asphyxiation and respiratory failure sometimes seem to play a part. Septicemia may lead to meningitis, acute bacterial endocarditis or pericarditis which are very likely the specific causes of death in such cases. Frank cardiac failure is uncommon in cases not previously cardiac in nature.

Prognosis

There are six recognized factors which alter the outlook in any given case. These are (1) the age of the patient, the outlook being more unfavorable at the extremes of life, (2) the type of organism causing the infection. Among pneumococcal pneumonias (not serum treated) Type III is reported as having a case fatality rate of about 50 per cent, Type II about 40 per cent, Type I, 30 per cent, and the massed higher types 30 per cent. Hemolytic streptococcus pneumonia is always serious having a fatality rate of somewhat over 50 per cent in inter epidemic periods and much higher, of course, during the epidemics such as that of 1918, (3) bacteremia early in the disease makes the prognosis more grave, and persistent bacteremia makes it very poor indeed, (4) if serum treatment is instituted the duration of the illness before treatment was started materially influences the prognosis, (5) the presence of cardiovascular disease or any other chronic debilitating condition makes the outlook less favorable, (6) an inadequate leukocyte response is among the worst prognostic signs. An inadequate febrile reaction, disproportionate to the other clinical evidence of infection, may be similarly interpreted in most instances.

Convalescence

It is well to remember that the patient who has recovered from lobar pneumonia has recovered from an extremely severe illness. The myocardium is likely to be weakened as well as the entire system. Accordingly, time spent in an adequate convalescent course is time well spent and actually time saved.

Complications

The more important complications which may contribute to a recurring, or sustained fever and delayed recovery are empyema, serum sickness, acute and sub-acute sinusitis, otitis media, mastoiditis, thrombophlebitis, and reactivated pulmonary tuberculosis. Suppurative lesions such as pericarditis, pneumococcal pyoarthrits and ischiorectal abscess are occasionally encountered.

Overwhelming pneumococcal septicemia, meningitis, and endocarditis, when encountered, are usually terminal events.

Delayed resolution may progress into chronic pulmonary fibrosis and bronchiectasis in certain instances. This seems par-

ticularly true in cases of influenza, streptococcus, and whooping cough pneumonia

Icterus is fairly common Unless of unusual severity it does not seem to alter the prognosis Auricular fibrillation may appear for the first time, especially in elderly patients and may, or may not, be evidence of serious cardiac damage The danger of

embolism is always present though it is not frequently encountered In elderly people mild cerebral accidents may occur during the height of the disease which cause a prolonged comatose or semi-comatose state during convalescence Transient postpneumonic psychosis may develop after the subsidence of the acute disease

The Physicians' Home, Inc.

Happy New Year

★

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Historical Article*

A HISTORY OF MEDICINE IN THE STATE OF NEW YORK AND THE COUNTY OF MONROE

FLORENCE A COOKSLEY, B A , M A , Rochester
Librarian, Rochester Academy of Medicine

Part II History of Medicine in Monroe County

Chapter IV

The Rochester Academy of Medicine
and

The Rochester Medical Association

Formation of Rochester Academy of Medicine 1900, Medical Library of County Society continued by Academy and Reynolds Library Academy rents a home Rochester Medical Association formed 1914 Home purchased Financial success, Assumes control of library, Medical School gets part of library, New home purchased, 1923, Amalgamation of Academy and Association, 1929

The advisability of establishing a medical library was earnestly discussed at the seventy-first meeting of the Monroe County Medical Association on May 27, 1891 and upon motion of Dr F F Dow, the president appointed a committee of three, Dr Dow, Dr Angell, and Dr H S Durand, to consider the question and to report at the next meeting. At the annual meeting the following year the Committee reported that the Reynolds Library Committee expressed a willingness to assist in maintaining a medical department as an addition to the library. A resolution was passed by the County Society that the Library Committee of that society should be authorized to receive donations of medical literature and of funds to be expended for such literature and that the Committee be further authorized to make such arrangements with the Reynolds Library as in their judgment might seem best. Fifty dollars from the treasury was voted for the annual use of the Committee and the president, Dr Edward W Mulligan, appointed the following Committee, Dr F F Dow for one year, Dr Harriet Turner for two years, Dr Sarah R. A Dolley for three years, and Dr John O Roe and Dr Edward B Angell for four years. In the following year Dr Dow was re-appointed, this time for a term of five years and all succeeding appointments were for that length of time.

In 1897 Dr Angell reported for the Li-

brary Committee saying that there were on file at the Reynolds Library all the leading medical papers in the world. An additional fifty dollars was voted for the library as the Society had been unable to give anything during the past two years due to a lack of funds. The report of the Committee stated that in 1892 the Reynolds Library had agreed to contribute to the medical department of the library, an amount equal to that given by the Medical Society up to \$250 00. Fifty dollars had been appropriated by the medical Society and \$100 00 contributed by the members and the Reynolds Library therefore gave \$150 00 and of the \$300 00, \$250 95 had been spent mostly for periodicals, sixty of the most important English, French and German journals being subscribed for. The report of funds expended was given as follows:

	Fund	Expended
1895-6	\$285 85	\$260 03
1896-7	\$485 02	\$450 85
1897-8	\$384 17	\$253 90
1898-9	\$330 37	\$321 20
1899-'00	\$569 07	\$472 55
	<hr/> \$2054 48	<hr/> \$1758 53

It had long been felt that the medical profession should have a home of its own but all attempts to establish such a home had come to naught. With a growing library to be cared for, it became more evident than ever that permanent headquarters were needed. A letter signed by Drs William S Ely, John O Roe, and Edward B Angell

* Continued from December 15 issue.

was therefore sent to the medical men of Rochester, saying, "It is proposed to organize an Academy of Medicine in Rochester and you are invited to attend the preliminary meeting to be held on Monday evening, June 26, 1899 at 8 30 P M at the Reynolds Library, to discuss the advisability of the project." Twenty-three physicians attended the meeting, which was called to order by Dr Angell after which Dr Ely was chosen chairman, Dr H T Williams acting as secretary

Dr Angell "explained the object of the meeting was to form a society to be known as the Rochester Academy of Medicine and to be a society for scientific work" and for social purposes only incidentally All present were in favor of the project and a committee, consisting of Dr Roe, Dr Angell, and Dr E H Howard, was appointed to draw up a constitution

By-laws were formally adopted on January 24, 1900 and the officers elected were, president, Dr William S Ely, secretary, Dr H T Williams, treasurer, Dr Edward B Angell, councilors, Dr E H Howard, Dr E W Mulligan, Library Committee, Dr J O Roe, Dr J L Rosebloom and Dr E B Angell While the minutes do not state who were charter members, we assume that they were as follows

Those attending the first meeting were

Dr W S Ely
Dr J F W Whitbeck
Dr John O Roe
Dr Edward B Angell
Dr Robert Cook
Dr J L Rosebloom
Dr E H Howard
Dr Lewis W Rose
Dr Sumner Hayward
Dr S L. Elsner
Dr C A Dewey
Dr E W Mulligan
Dr William R. Howard
Dr Ezra B Potter
Dr Charles E. Darrow
Dr E. Wood Ruggles
Dr Nathan W Soble
Dr M S Collier
Dr William L Conklin
Dr Charles D Young
Dr Thomas A O'Hare
Dr Charles S Starr
Dr Henry T Williams

Those attending the second meeting, adopting the by-laws—(besides any of the above)—

Dr Charles R. Barber
Dr W M Brown

Dr Marion Craig Potter
Dr George M Goler
Dr A W Henckell
Dr William B Jones
Dr E. M. Moore, Sr
Dr E M Moore, Jr
Dr J A. Stapleton
Dr T O Tait
Dr Robert L Carson
Dr Joel M Ingersoll
Dr Frederick W Zimmer
Dr Louis A Weigel
Dr S Case Jones
Dr Charles T LaMour
Dr E V Stoddard
Dr Eveline Ballentine
Dr Frank A. Jones
Dr Henry Koch
Dr J W McGill
Dr H J Mann
Dr D G Mason
Dr Wheelock Rider
Prof Charles W Dodge
Prof. S A. Lattimore

The membership of the newly founded Academy was divided into four sections, (1) General medicine, (2) Surgery, (3) Obstetrics and gynecology, (4) Public health The chairman elected by these sections were vice-presidents of the larger body At the following meeting, February 7, the treasurer reported that thirty-three fellows had paid their dues of \$20 00 each

The first annual meeting of the Academy was held on December 12, 1901 in the Hall of Reynolds Library The retiring president, Dr William S Ely stated in his annual address before the Society that he had long contemplated the desirability of establishing such an organization He enumerated the advantages it might promote as (1) the maintenance of a high standard of professional relations in a period when a commercial spirit seemed manifest in the profession, (2) stimulation of study and original research, (3) the fostering of a medical library and the preservation of valuable medical contributions, (4) by dividing the work of the Academy into Sections, to enlist the interest of the growing number of specialists in important branches of medicine, and (5) to make known the need of a permanent Academy building or home for the profession of a large and growing city He explained for the benefit of those who considered the fees and dues too large, that they were necessary to maintain the Society on a plane consistent with its dig-

nity and importance and that the members received in return for these dues the advantages of the Academy and the library and that with the aid of the Reynolds Library which gave an equal amount subscribed by the Society, the library was being built up. Meanwhile there was being accumulated a permanent fund which with gifts from the outside would ultimately provide a permanent home.

President Ely's address contains so much of interest that we will quote freely from it.

Now, Fellows of the Academy, is it reasonable to attempt to forecast the future of such a body as this and from our present beginning, looking down the years, to see an Academy of Medicine in Rochester of hundreds of active and scientific workers of the highest character and aims, assembled in a completely appointed structure owned by the members of the profession, built and endowed by their patients and friends, who in a common faith are devoting themselves to the welfare of humanity? To your Council this dream does not seem too visionary and I am confident that it may be realized in the lifetime of some of those present, if we unite in a faithful devotion to the permanent interests of this organization. Other cities have costly homes for their Academies of Medicine, why should not Rochester also possess among its numerous educational structures one to be known as the Rochester Academy of Medicine? As our eyes from week to week are caught by its Seal, let that Seal remind us that the Rochester Academy of Medicine needs and must have its permanent home.

It is regrettable that this earnest founder of the Academy did not live to see the realization of his dream, for he died in 1911. The first building was purchased in 1914.

After the remarks which we have quoted, Dr Ely proceeded to speak of some diseases which were then little understood. He said that it was a good thing that patients did not know how ignorant their physicians were regarding the causes and treatment of pneumonia, nephritis, cancer, diabetes, progressive pernicious anemia, Graves' disease, epilepsy, and other diseases. He said that the treatment of all these was unsatisfactory. He added that cancer was practically proven to be a parasitic disease and that the latest suggestion regarding diabetes was that it is of an infectious character and that all they could do was

to modify the patient's diet so as to keep the urine free from sugar and at the same time maintain the body weight, but diabetes was incurable, treatment being only for symptoms and life prolonging. In exophthalmic goiter, he added, they were dealing with an obscure affection of the nervous centers of which they were ignorant. He concluded, "Only in recent years have biological chairs been equipped in the colleges and the benefit just being reaped. There is now no place in the science of medicine for the unbiological physician."

We are interested in Dr Ely's address because of the changes in medicine since then and also because of the enthusiasm which he expressed as the representative of fifty equally enthusiastic members, for building a permanent home. With the large dues collected and the determination of the members, we would naturally expect that a building would be forthcoming. We are therefore surprised to find that the Academy of Medicine, like the Monroe County Medical Society and the Pathological Society, failed in this project and that it remained for a later organization, the Rochester Medical Association, to succeed in purchasing a home. We will tell that story later. One thing should be borne in mind in discussing these various medical societies and that is, that the membership of these organizations consisted of almost the same men, with only the leaders different and even they were identical in many instances. Each society had its own function and well-defined motives and when they merged into a common organization, it was because their functions had become the same.

Soon after the formation of the Academy of Medicine, the Monroe County Medical Society ceased to give toward the library fund. In 1900, the year of the founding of the Academy, the Monroe County Society gave one hundred dollars and the Academy gave one hundred fifty dollars. That was the first time, and also the last, that the Reynolds Library had to give the full amount of its pledge, two hundred fifty dollars. All other times, the amount was considerably less. That year, 1900, the medical library consisted of 2,056 volumes. Many of these books were gifts from physicians, also, there were 1,357 volumes including a complete set of Virchow's *Archiv*s, which had been presented to the

Academy by the New York Academy of Medicine. Dr Roe and Dr Angell had gone to New York City in July of that year and had gone into the hot dusty basement of the New York Academy and had chosen the volumes, for a nucleus of the new library. The set of Virchow's Archives, which the members considered so valuable and were so happy to own, became temporarily the cause of bad feeling, for when the library of the University Medical School was being assembled, this set of books was given to the Medical School by the Reynolds Library, without first getting the approval of the Academy. How the division of books which had been the joint property of the Academy and of Reynolds Library came about, so that the new medical school received a part of them, will be explained later when we tell of the property purchased by the Rochester Medical Association and the housing of the library in the new building.

To return once more to a consideration of President Ely's enthusiastic address, one benefit resulted therefrom which brought much joy to the membership. Dr Ely announced at the meeting in the following November, that a patient of his, Mr Charles T Ham, had read that address and greatly interested, had presented the Academy with a check for five thousand dollars. Mr Ham was hailed as the first benefactor of the Academy and it was the hope of its members that more public-spirited citizens would contribute to the building but no further contributions from laymen were received.

The bookplate of the Academy of Medicine, adopted in 1904 was the same as used today, with the motto, "Ars Medica Crescat," "Let Medical Science Flourish." At the meeting which we have just reported there was an interesting discussion of the desirability of having a building of its own but nothing was really done until 1910 when a motion was made to purchase the Luitweiler homestead at 128 East Avenue and the motion having been carried by a vote of fifty-one for and nineteen against, a committee on arrangements was appointed consisting of Dr Williams and Dr Roe. The Academy then had in the treasury twelve thousand dollars. However the purchase was not consummated. Eighteen months later, on January 17, 1912, Dr Ralph Fitch again brought up the question

of a permanent home and a new committee was appointed consisting of Dr Edward B Angell, Dr Edward Mulligan and Dr Willis E Bowen. The committee reported soon after, recommending that ten thousand dollars be set aside as a permanent library fund, invested to secure five hundred dollars per year for the upkeep of the books and that the membership be increased by fifty members to obtain the needed funds. A discussion followed regarding the advisability of renting a home on East Avenue owned by Dr Fitch, the upper floor of which he would rent for six hundred dollars a year. The committee reported that it would cost about two thousand dollars yearly to take care of the rooms and the library.

Letters were then sent to the members asking for opinions regarding that proposition and many replies were received. Forty-seven were in favor of increasing the membership, eight opposed, twenty-eight Fellows agreed to contribute a total of \$350.00 annually besides regular dues. It was then decided to rent the lower floor of the Fitch home for the sum of one thousand dollars a year, with care included. Partitions in the new quarters were removed and the three large rooms were leased for three years from May 1, 1912. On January 14, 1914, Dr Hanes read the following report from the Council of the Academy.

In the early months of 1912, following an individual canvass of the Fellows, the Academy of Medicine embarked on a new enterprise in its history, that of maintaining its own home. It was appreciated that we had not sufficient means to purchase and maintain a home, so it was decided as a result of that special canvass of the Fellows, as expressed on several occasions through the medium of the ballot at meetings called for that purpose, to own our own home, it was the hope of those responsible for the formation of this plan that this temporary rental period might serve as an evolutionary stage in the process of acquiring a permanent home for the Academy and that this temporary home would serve to crystalize thought and activities and in turn, lead to the acquisition of permanent quarters. There have been many differences of opinion among our Fellows during the past two years relative to the wisdom of the present plan of a temporary home, some feel that the location is not sufficiently central, others that the expense is too great, etc., so that with its present knowledge, your Councilors feel

quite unable to interpret the general thought of the Academy on the subject of an Academy home. In a recent effort to clarify the situation, if possible, a letter of circular character was sent to each Fellow, with the request that the financial extent to which the individual Fellow would be willing to assume responsibility for the purchase of a permanent home under ideal conditions, be indicated. We are unable to report any decisive result from this effort but twenty-seven replies having been received to this inquiry, only twelve of which were in any degree indicative of a willingness to assume individual financial responsibility on the part of our Fellows toward the purchase of a permanent home.

It is somewhat difficult at first, to clearly follow the history of these various medical societies in Rochester and not get them confused. Their paths seem at times to run parallel, then merge, sometimes becoming permanently one, sometimes diverging again in quite different directions. Let us try to make their individual existence a little clearer before starting the study of the development of the Rochester Medical Association and then follow with the resumption of the story of the other societies.

The Medical Society of the County of Monroe is the oldest medical society in Rochester and has continued with little change in general structure through the years. The Rochester Pathological Society came next, functioning as a scientific and social organization, first as a separate individual society, then later as a section of the Academy of Medicine. As the County Society became more active in local, county, and state medical affairs, with the Academy assuming much the same function, the Pathological Society gave up such activities and indulged in scientific meetings followed by a social hour. Although this organization is a part of the Academy according to constitution, its by-laws requiring that candidates for membership must first be members of the County Society, remain unchanged. The Rochester Medical Society, the third society to be formed, was born early, lived abundantly, and quickly passed away. The Academy of Medicine, created because of the need of founding a library, became a spirited scientific organization of high repute but limited in its membership by its by-laws. This very limitation caused the rise of a new medical society, called the Rochester Medical Association.

With meetings similar in nature, the two societies, the Academy of Medicine and the Rochester Medical Association, met in the same building, the property of the latter society, until with membership and purpose so much alike and with too many meetings to attend with comfort, it was decided to amalgamate. How this amalgamation came about, we will explain by discussing the origin and work of the Medical Association. Having done that, we will try to show the special work done by each medical society.

As has been stated, the Rochester Academy of Medicine was limited in its membership. The young men of the profession were not admitted, a certain maturity and experience being required, together with a scientific paper to be submitted with the application for membership. There was a still more serious obstacle to certain members of the profession. Attention has been called in the discussion of State medical history, to the abrupt break in the membership of the State Society, brought about by the adoption of a new code of ethics, caused in turn by the growing power of the Homeopathic and Eclectic practitioners, who had been treated as pariahs. Many members of the old State Society left its ranks and formed a new one. Likewise new County societies were formed. In Rochester a County Homeopathic Society was formed in 1866 with seventeen charter members. In 1907 there were seventy-four physicians practicing homeopathy in the city with two homeopathic hospitals operating successfully, the Homeopathic Hospital, now the Genesee Hospital and the Hahnemann Hospital, now known as the Highland Hospital. The former was opened in 1889 and the latter in 1891. Some of the most highly respected practitioners of Rochester were of this school and less than half a dozen had been admitted to membership in the Academy of Medicine.

There was another society of physicians called the Hospital Medical Society, organized in 1898, which had for its active members, only those who had practiced for less than fifteen years. We will speak of that society later. Although there were many medical societies, the Monroe County Society, the Pathological Society, the Academy of Medicine, the Monroe County Homeopathic Society, the Rochester Hahnemannian Society, the Blackwell Medical

Society for women physicians, and the Hospital Medical Society, there was no strictly scientific medical society open to all practitioners. It might seem a plethora of organizations to add another medical society to the already long list but as we shall see, this new organization was able to satisfy the needs of the other societies and so came to absorb most of them.

At a special meeting on January 22, 1914, called by the members of the Rochester Pathological Society, Dr. Frank Burr Tibbals of Detroit gave a stirring address, telling the assembled members of the Society and other invited medical men of the city, of the medical home in Detroit and the possibilities of a similar organization in Rochester. At the end of his paper, the meeting was adjourned and reassembled to form the Rochester Medical Club. (The name Rochester Medical Association was adopted at the following meeting.) Dr. W. D. Ward acted as chairman of the meeting and Dr. Charles Hinchey as secretary. All present expressed a desire for such an organization and a committee composed of Drs. W. B. Jones, W. L. Bowen, Charles R. Barber, Kathleen Buck, Ralph R. Fitch, William W. Percy, J. K. Tretton, W. Douglas Ward, and David B. Jewett, was appointed to consider its formation. After a number of meetings of the committee to consider ways and means, a meeting was called at the Chamber of Commerce on Friday, February 13, 1914. About one hundred fifty physicians attended this meeting and elected as officers to serve until May 1, 1915: president, Dr. W. B. Jones, vice-president, Dr. F. F. Dow, secretary, Dr. D. B. Jewett, treasurer, Dr. Wesley T. Mulligan, board of directors, Drs. J. O. Roe, J. R. Calkin, E. J. Bissell, H. T. Williams, W. D. Ward, V. A. Hoard, W. I. Herriman, L. L. Button, and M. B. Palmer.

The object of the Association, as stated in the constitution was (1) the acquisition and maintenance of a building with assembly, committee, and social rooms, for the use of its members and for preserving the archives and effects of the Association and its Sections, and such other purposes as are incidental to or connected with such object, (2) the advancement of the science and practice of medicine and surgery, the promotion of sanitation and public health,

the maintenance of a library and of allied arts and sciences, (3) the promotion of the activities and interests of societies of similar character allied with it.

The constitution was adopted on March 30, 1914 and all who signed within thirty days were considered charter members. Two months later (June 1) there were about one hundred sixty members who had subscribed the sum of \$18,700.00. The Jeffrey property on the corner of Chestnut and Euclid Streets was purchased for \$35,000.00. A first mortgage was given to the Rochester Trust Company for \$23,000.00 and a loan of \$10,000.00 obtained from the Merchants Bank. We will show later how this property, bought in 1914 for \$35,000.00, was sold ten years later for \$100,000.00, the loan of \$10,000 having been paid off in the meantime. The Association was served by Dr. W. Douglas Ward as treasurer almost from the time of its organization until his death in 1936 and the secretaryship has been held since 1922 by Dr. Harry Clough.

The membership of the new medical society grew rapidly and in October, five months after its organization, there were 286 members. The annual dues were \$15.00 and there was usually a favorable balance except in the year 1919 when it was found necessary to make an assessment of five dollars.

We have shown the origin of the Rochester Medical Association and its rapid financial success. Let us look back to what happened in the Academy of Medicine during that time. The minute book of the Academy reports the founding of the Rochester Medical Association and approval of the project. The members voted to become a section provided that the Association take over the library, provide a librarian, and care for the books. A committee was appointed to consult the trustees of the Reynolds Library regarding the share that library had in the Academy collection. Despite this action, the Academy never became a section of the newer body but did hold its meetings in the Association home as soon as it was opened.

According to the minutes of the Academy, Dr. Jewett acted as an intermediary between the two societies, presenting to the Academy members the purposes and practices of the other organization. In February 1915, the Academy received a com-

munication from him, as secretary of the Association, stating that it was the hope of the Board of Directors that every member of the medical profession would find in the various sections an opportunity for social and scientific work and more cordial personal and professional relations would be developed. In order that the scientific work should be enhanced, it was the purpose of the Board of Directors to invite distinguished men to address the Association at large.

The new medical society, the Rochester Medical Association, became a melting pot for all interests in the medical profession. This was soon shown by the large attendance at the monthly meetings. In May 1915, the members of the Academy had a serious discussion at its meeting, regarding the large attendance at the Association meetings, about two hundred attending, whereas the attendance at Academy meetings had dwindled to twenty-five persons. There was some feeling expressed that the Association had not adhered to its original plan and was holding scientific meetings in competition with the Academy. Finally a motion was carried that it was the sentiment of the Academy that the Association should continue its scientific meetings, that all were concerned in the greatest good.

In the meantime, the Sections of the Academy continued to hold their separate meetings and in October 1916, there was a discussion at the Academy meeting regarding the advisability of discontinuing these Sections. It was said that the Academy had been organized after the style of the New York Academy of Medicine, in a city where there were many specialists but in Rochester there were not fifty strictly specialists in the list of four hundred fifty physicians. It was decided, however, not to make the change at that time.

The next important question to be considered by the Academy members was the maintenance of the library. The Reynolds Library trustees had agreed to transfer their share in the medical collection if the Academy would repay the money expended upon the books and binding by that Library (\$3,784.22). This the Academy seemed unwilling to do. Now came the University Medical School with its need of a good medical library and some of the Academy members recommended that all the volumes mutually owned by the Academy

and the Reynolds Library be turned over to the school. Mr. Donald Gilchrist, Librarian of the University said at the meeting where this was proposed, that the medical library of the University was to be housed at the medical school and would be a 100,000 volume library. Sixty thousand dollars were to be spent on complete sets of old periodicals and nothing the Academy voted to do with its library would affect the plans of the University. If the Academy had any books that the University could use, it would be that much money saved, but Dr. Whipple, the new Dean of the Medical School would not accept any conditional gifts.

Dr. George Goler, a member of the Academy, said that the people of Rochester was not a reading public and that it was necessary to blow the dust off the medical books in Reynold's basement if anyone wanted to use them. He advocated giving them to the University. Dr. James Quigley, another member, thought that the journals should be kept at the Association rooms for at least two years before giving them to the medical school. Some thought that the medical school library would be too inaccessible to be of much use to the practitioners of Rochester. Mr. Yust of the Rochester Public Library system thought, too, that the Academy books should go to the University. Many of the older members of the Academy were hurt and chagrined because the library for which they had labored so long and which was the original cause of the organizing of the Academy of Medicine, should be held lightly as if of little value, by the University authorities and that some of the members themselves should be willing to give it up. General Noble of the Surgeon General's library in Washington, addressed the meeting that night, March 8, 1922, speaking on the subject of Local Medical Libraries. General Noble pointed out that there are three chief requisites of a library, first, books, second, housing, third, service. Without service you have a dead library. He thought there should be a library at the medical building where the members would feel at home, rather than at the University where they would feel out of place. He thought, moreover, that it was a function of the Academy to educate the public in medical matters.

This meeting occurred in March 1922.

and in May both the Academy and the Association again discussed the question of the future of the library. The Academy and the Association were working together in providing for the library and continued to share in this work up to the time the two societies amalgamated. It was decided to offer to Dean Whipple of the Medical School, such books and journals as he should desire for the medical library he was developing. The Academy was to relinquish its claim to its share in the books at the Reynolds Library, providing the Reynolds Library did the same. It is interesting to note that the trustees of the Reynolds Library who had refused to give their share in the books to the Academy, unless repaid for the sum that library had expended, now were quite willing to give them to the University.

After the University had removed the volumes desired, those remaining were catalogued, this cataloging costing \$869 13, about one hundred dollars of which cost, however, was for necessary furniture. The Association paid most of this expense. The library having been moved to the new building of the Association, a trained librarian, Miss Frances Joiner, who had been doing the cataloging, was employed as librarian and served in that position until 1928.

And now came the next change, the buying of the second and permanent home of the Association. An offer of thirty-five thousand dollars made in 1919 for the Chestnut Street building had been refused, as that was the price paid for the building and there was no reason for selling. The next offer came in 1922 when a price of \$72,000 too was rejected. The next offer, unsolicited as were the others, came in 1923, of \$90,000 00 and the trustees began looking around for another home. At the end of that year a final offer of \$100,000 00 was accepted and the present quarters at 13 Prince Street was purchased from Mr. James S. Watson for \$50,000 00. It had formerly been the property of a Presbyterian minister and was in excellent condition. The building was remodeled to fit the needs of the Association, redecorated and furnished and when all bills had been paid, the Association had a beautiful home, free from debt and \$9,500 00 in the bank. Few of those who now enjoy the comfort and

facilities of the library and the building in which it is housed, appreciate the long years of planning and giving which were necessary before this triumph was achieved.

The two societies, so similar in function, continued to hold monthly meetings in turn and both working peacefully together in building up a fine library, each paying toward its support. Let us not get the idea that the maintenance of the library was the only function of the two medical organizations. It was an important and perhaps the chief function, however, each society enjoyed splendid scientific programs, bringing many noted medical speakers to the city. But gradually the membership became more and more identical, with the same purposes in mind. There came the recurrent cry of too many medical meetings to attend and too many societies to support. In the Spring of 1929, committees of the two groups met together to discuss amalgamation. This union was quickly brought about. The type of organization which the Association had adopted, was deemed less cumbersome than that of the Academy and was therefore adopted for the united societies. The Association disbanded and both organizations turned over their treasures and property to the new society, which received its charter under the name of the older group, the Rochester Academy of Medicine. The officers elected at the last meeting of the Association in May 1929 became the officers of the new society. To most of the members, there was no visible change, the chief difference being one less meeting each month and the dues of one society eliminated. We are impressed with the fact that every time there is a strong complaint against too many meetings, the complaint is directed against the large societies. The Sections of the Academy were eliminated and then small groups of pediatricians, roentgenologists, obstetricians, and others began to hold regular meetings. Then each hospital began monthly, even weekly meetings of staff members and again came discontent with too many demands upon the time of the medical man. Frequently comes the suggestion that three large medical societies are too many for Rochester and too many to support. The younger members often direct their attack against the Academy, not knowing that it is the membership of the

Academy that owns and supports the Academy building and that all the other groups, large and small meet in that place through the courtesy of its members and without contributing toward its support. To abolish the Academy would mean to hand over all its assets to the Monroe County Society, which must continue because of its State and National affiliations. Moreover, the two organizations are too dissimilar in nature for amalgamation at this time. The County Society is more active in protecting the medical profession from unjust and harmful laws propagated by ignorant laymen and in keeping a watchful eye upon

public health conditions, working as ever for health preservation and disease prevention. The Academy leaves these matters to the care of the County Society and concerns itself with scientific and educational programs and with the maintenance of the building and its library.

We must leave this discussion of the larger medical groups—the Monroe County Society, the Academy, and the Pathological Society—to examine the origin and function of some of the smaller medical societies of the city, which filled a particular need and successfully functioned until that need no longer existed.

Chapter V

The Smaller Medical Societies and Conclusion

Homeopathic groups in Rochester The Hospital Medical Society The Blackwell Society Rochester Free Dispensary Women's State Medical Society Recent work of County Society, Outstanding member Dr E Mott Moore Conclusion

The stronghold of Homeopathy was in New York City but Rochester had a considerable number of that school. There were two homeopathic societies in this city, the Homeopathic Medical Society of Monroe County and the Rochester Hahnemannian Society. The County group was organized January 2, 1866 with seventeen charter members. The first officers were Dr George Lewis, president, Dr M M Mathews, vice president, Dr D A Baldwin, secretary-treasurer. In 1884 there were thirty-seven members and in 1907, fifty-two members. That year there were eighty-eight homeopathic physicians in Monroe County, seventy-four of whom lived in Rochester. The Hahnemannian Society in 1907 had seventeen members. The latter society had been formed in 1886 by seven homeopathic physicians of Rochester, who felt that the County Homeopathic Society membership was diverging from the true Hahnemannian principles. Its president and ardent leader was Dr Joseph A Bigler, vice-president, Dr R A Adams, secretary-treasurer, Dr R C Grant. Space does not allow us to include the transactions of the State Homeopathic Society and therefore those of the County and City Societies cannot be included, for it would not be possible to well understand one without the other.

Mention was made earlier of the Hospital Medical Society, another organization

of medical men of Rochester which served a particular need while the need endured. The younger practitioners of the city were not admitted to membership in the Rochester Academy of Medicine, and in order that they might meet together for purposes of study and for the promotion of professional friendships, they formed the Hospital Society in 1898. Only those in practice less than fifteen years were admitted to active membership and this rule was rigidly enforced. A member having reached his fifteenth year of practice became an honorary member, henceforth "to be seen and not heard." The active members were never great in number and most of them were interns or on the staff of the City Hospital. Many of the physicians who later became leaders of the medical profession in the city, had been officers of this group. With the organizing of the Rochester Medical Association open to all licensed practitioners, the need for such an organization ceased and as many of its members left the city for service in the World War, meetings gradually ceased. Physicians of the city today who were among the youthful members of the Hospital Society speak of that group with a warmth of feeling in appreciation of its informal meetings with its excellent papers and lively but friendly discussions.

Another medical society should be rec-

ognized as having done a particular good in the county, the Practitioners Society, later called the Blackwell Society, an organization of women physicians of the county and vicinity. It grew out of a need for a dispensary for the poor. Before this dispensary had been formed in 1886 by the women physicians of Rochester, there had been a clinic, Rochester Free Dispensary, which existed from 1872 to 1879. Let us note briefly the part this organization played in caring for charity patients of the city.

The only information remaining of this clinic is the secretary's book recording meetings from February 21, 1875 to October 10, 1877, with an addenda written in 1914 by Dr Charles S Starr, a charter member. Dr Starr from his recollections wrote a history of the Dispensary in the addenda and stated that no record but this book remains.

On August 1, 1872, just one year after its organization by eight physicians of Rochester, a suggestion was made at a meeting of the Rochester Pathological Society that a Dispensary be established. The Dispensary was opened soon afterward at 12 Mill Street. On February 21, 1873, according to the first minutes in the book, the Board of Managers of the Rochester Free Dispensary met at the office of Mr E M Smith and after transacting such business as pertained to the old organization, adjourned "sine die" and the Board then reorganized under the charter.

From the by-laws we learn that the Dispensary was founded and put into working order by the personal efforts and private means of the Pathological Society and citizens of the city. The attending medical officers were active members of the Pathological Society and the consulting officers were active or honorary members of that Society, each serving in rotation for three months. These men had been in practice for ten years, five of which had been spent as active members of the Society and as attendants at the Dispensary for two years. None of them received compensation for their services. At first there was a fine attached for absence from assigned duty but this was found inexpedient and those reluctant in serving, were dropped from membership. No doubt, the work required too much from the busy practitioner and

one by one, they resigned but there was always someone willing to be elected to fill a gap. The Dispensary opened at first for one hour each afternoon except on Sunday and holidays and later an hour in the morning was added.

Laymen served as members of the Board and one of them, Mr Ezra Andrews was treasurer for the eight years the Dispensary existed. The funds to start the clinic were solicited by members from citizens of the city and druggists at first contributed medicines. In 1873 the members asked the Common Council for a contribution of \$500 00 and for permission to meet in what was called the new Center Market Building on Front Street. Both requests were granted. With this gift from the city and with \$425 00 which had been solicited, the Dispensary was soon well-equipped and after all bills had been paid, there remained in the treasury, a year later, the sum of \$300 00. In July of that year a second statement of the treasurer showed a balance of \$692 92, indicating that more contributions had been received.

The first president, Dr George A Wallace, served until January 1878, when he resigned because of ill health "and the winter." Dr Starr was elected in his place. Dr O E Roe was secretary during the lifetime of the Dispensary.

Although the minutes ended abruptly in October 1877, Dr Starr said in his addenda that the organization existed until January 14, 1879. The Dispensary had done a good work in caring for many of the sick of the city but changing events brought about a lessening need for its services. The City Hospital, now the Rochester General Hospital and St Mary's Hospital had opened free dispensaries. Dr Starr adds, also, that the Womens' Provident Dispensary had opened but Dr Starr wrote his brief historical sketch thirty-five years after the original dispensary had closed and his memory was at fault, for the Womens' Dispensary did not open until 1886.

Besides the opening of hospital dispensaries, there was another reason for closing the Dispensary. The City Council decided that it had no legal right to grant money to the Dispensary and, possibly also lacked the right to give the use of its rooms. Under these conditions, it was voted to close the institution. Thus came to an end a splen-

did work done by a few physicians who gave of their time not only in serving the poor but also in soliciting the funds necessary to carry on the work

The women physicians of Rochester, belonging to the regular school, as stated in the minutes of the Womens' medical society, met on November 23, 1886 at the residence of Dr Mary E Stark to "consider the question of establishing a dispensary for women and children, to be attended by women physicians" At that time, women physicians were not admitted to a position on the staff of any of the hospitals. Indeed, we are told by Peck, that Dr Marion Craig was the first woman appointed on a Rochester hospital staff her appointment as assistant physician at the City Hospital occurring as late as 1898. The object of the new dispensary, as recorded in its minutes, was to provide medical and surgical care for such women and children as should need gratuitous service. Its membership consisted of women physicians and "fifteen other ladies elected by these physicians, not more than three to be chosen from any one religious denomination" Anyone could become an associate member by contributing one dollar or more a year. The active members were taxed one dollar.

Dr Sarah R. Adamson Dolley was elected its first president. Dr Dolley was one of the first of women physicians to be given a medical degree and she became a highly respected practitioner, honored by the entire medical profession. Under her leadership the new Provident Dispensary Association prospered. The Dispensary was open only during the afternoons but in January 1888, it was found necessary to open the clinic two mornings as well. The rooms were on Front Street and at times filled with patients. In 1890, the visits totalled 1,439 but the number of patients was 293. The same year the Association at its May meeting, voted to send thanks to the Common Council for having appointed two women, Dr Harriet Turner and Dr Minerva Palmer on the staff of city physicians.

Besides the dues paid by the members, the Dispensary was supported by private contributions of money and medicines and the city at times appropriated one hundred dollars for medicines. Frequently it was

necessary for the members to impose a small assessment upon themselves to meet a deficit in the treasury. The organization in 1893 was incorporated as the Practitioners Society and its purpose was no longer to support a clinic. Dr Mary Stark said in 1889

The fact of a medical society conducted by women physicians is an innovation in Rochester and our future standing in the profession depends in a degree upon our united and persistent effort to promote the success of this Society. We are the members of a learned profession of which the opposite sex are as the sands of the sea compared with us in numbers. They hold precedence by right of occupation and also by reason of a general prejudice of the public. The hospitals are held by them with few exceptions. The medical societies are under their control, we have been admitted to these after the persistent knocking of the pioneer women of the profession but we are not at home there as in our own circles. We need the general societies to broaden our minds and give us lines of thought but our work and growth should be free where we are without embarrassment or restraint.

The meetings were held at the homes of the members, which since organized as the Practitioners Society consisted of women physicians only. Occasionally, instead of meeting in the city, with the hostess serving a dinner, an entire day was spent at the home of an out-of-town member. The trips were made by train or by "steamer" on the Erie Canal. In 1902, the organization gave a lawn fete and raised one hundred thirty dollars to give a Miss Lai a medical education, so that she might practice medicine in China.

The Society changed its name to the Blackwell Society in 1906, in honor of the first woman physician in the country. The organization still exists but seldom meets. The Dispensary, however, closed its doors and its useful existence in 1894 when the Common Council announced that the Mayor would take over the rooms as a clothing depot for the relief of the poor. In pencil is written a brief note in the minutes of the Society, of a meeting held, no date given, at which time the property of the Dispensary was sold for \$1070 to pay its debts. Thus, a second time we find a clinic for the poor closed when the City refused to give further use of its rooms but each time the refusal came when interest in the project had ebbed.

On March 11, 1907, at a meeting of the

Blackwell Society, a Womens Medical Society of the State of New York was formed, the occasion being a banquet in honor of the seventy-eighth birthday of Dr Sarah Dolley. Its purpose was "to bring women of New York State into communication with each other for their mutual advantage." Dr Dolley was elected president and Dr Elizabeth Blackwell, honorary president. The meetings of the organization were held in Rochester on Dr Dolley's birthday as long as she lived. This State Society of women physicians has continued its activities. Dr Marion Craig Potter of Rochester, daughter, wife, and mother of a physician, has always taken an active part in the State organization and served as its president in 1914.

In the history of the State Society which was given earlier, no attempt was made to bring it up to the present time. Except for mention of a few succeeding dates, the discussion closed with the reunion of the two State Societies in 1906. Likewise, the story of the Monroe County Society ends at an early date. The history of the Rochester Academy of Medicine, on the other hand, comes the present. This is because its union with the Rochester Medical Association is recent and had to be related, in order that its present organization may be understood.

The Rochester Academy of Medicine continues to furnish a meeting place for all medical groups of the vicinity, provides a home and a library for the medical profession and plans scientific gatherings bringing to the city noted men of the profession to address its members. All these medical societies of Monroe County are making history year by year and the story of their various activities for the last two decades is yet to be told.

It is impossible in a few words to tell of the work of the County Society done in the last fifty years and of the important part played in civic affairs. Its Comita Minora has sat in long sessions deliberating upon the business of the Society, recording these sessions in their minute book in a few terse sentences. Working with the Health Bureau of Rochester, the Medical Society of the County of Monroe has had a great share in making this city one of the healthiest and best protected cities in the world. Representatives from other cities and states con-

tinually visit Rochester to study its health measures. Its Child Welfare Stations have served as a model for many communities. Dr George W. Goler, in his unusually long tenure of office as City Health Officer, unhampered by politics, was a pioneer in establishing these Welfare Stations, as well as many other institutions of preventive medicine. The stations were first opened in 1897 in order that pure clean milk might be furnished for infants and that mothers might be taught proper feeding methods. The result was reduction of the former infant mortality rate.

The Certified Milk Commission was another important project of the County Society and Health Bureau. Its first object, the supplying of milk of high standard to sick infants was enlarged until pure milk was available to everyone, with cows tuberculin-tested, blood-tested, and kept clean in body and surroundings and employees working among cows, physically examined every month.

In the treatment of infectious diseases, Rochester has made remarkable progress. During the smallpox epidemic of 1901-02, "Hope Hospital," an old farmhouse between two railroads on the River Boulevard, cared for the many patients and was then destroyed. The next hospital for infectious diseases was the Waring Road Hospital, which, with the smallpox epidemic over, was used in the first movement toward scientific treatment of tuberculosis. The valuable work done by the Tuberculosis Association in its educational campaigns can not be related in these limited pages. Another preventive measure was the crusade against syphilis begun about twenty-five years ago, and about 1915 a campaign was opened for the prevention of diphtheria. Rochester was a pioneer in the use of toxin-antitoxin, as it had been of anti-toxin in 1896. Serum for the treatment of pneumonia was also used here early.

The Iola Sanatorium for Tuberculosis was an early project, as was the Open Air School. The Infants Summer Hospital has been operating since 1893 but now the Convalescent Home for Children, its cares for handicapped children. Another important measure in preventive medicine, was the placing of nurses in the public schools. Medical inspection in the schools began in 1904 when a citizen, Mr. Henry Lomb,

furnished funds to pay the salary of four physicians to examine school children. The City soon realizing the value of such service, assumed the cost, and employed both nurses and physicians. At this time (1936) there are over sixty nurses and twenty part-time physicians in attendance in the public schools. Prenatal clinics were opened in the schools in 1918, and about 1909 the Deafness Prevention Clinic was established through the enthusiasm of Dr Franklin Bock.

The first water supply brought into the city from Hemlock Lake occurred in 1874. There was a long struggle by the Health Bureau to eliminate outside toilets, cesspools, and wells. The first garbage collection ordinance was passed in 1879. Another measure, long advocated by the State Society, the recording of births and deaths, was adopted by this city before many of the other cities. Births have been recorded since 1870 and deaths since 1876. Other matters which frequently occupied the attention of the members of the medical profession and about which many papers were read in the County Medical Society meetings, were the orphanages and the State Hospital. Dr E. H. Howard, for many years superintendent of the latter and an active member and officer of the medical organizations of the community, brought the care of the unfortunates in the State Hospital to the frequent notice of the County Society.

Practically every question pertaining to public health was discussed at length at the County Society meetings and usually resolutions taken or recommendations made. To the lay reader of the old minutes, it is remarkable how the medical men, busy as they were with their patients and their continual reading of medical literature, could have been so altruistic in their attitude toward public welfare. Sanitation and other health measures have been their great interest and the public, feeling secure under the guardianship of the civic health laws, is quite unmindful of the sacrifices of the medical profession that fostered this legislation.

Mention has been omitted of the rise and growth of the excellent hospitals of the city and of the Medical School of the University of Rochester. Theirs is a most interesting story, too lengthy to be included here.

Little has been said regarding any partic-

ular medical man because we have been concerned not with the individual but with organized medicine and its collective action. Mention must be included here however, of a man who stands out in the State records as well as those of local organizations as a great man, Dr Edward Mott Moore. At various times he served as president of the Rochester Medical Society, the County Society, the State Medical Society, the State Medical Association, the Central New York Medical Society, the American Surgical Association, and the American Medical Association. He was active in civic affairs and served for many years as president of the Board of Trustees of the University of Rochester and is called the Father of the Rochester Park System. It was Dr Moore who earnestly endeavored to prevent the split in the State Society, feeling that a few years of careful consideration and patience would adjust the differences existing then. While he stood alone in that struggle, the members on each side heard him with respect and honor. Dr Moore felt keenly the exclusion from the American Medical Association which followed the adoption of the new code and was eager for reconciliation. Negotiations for reunion of the two State Societies and renewed membership in the National body were being contemplated before Dr Moore's death but not consummated until four years after he died in 1902.

The Medical Society of the County of Monroe continues to carry on the great work it has been doing for so many years, seeking not only to protect the medical practitioner and his interests but more than anything else, to protect an unsuspecting public from those who would prey upon it and from the carelessness of thoughtless citizens, and always working through the State Society for the common good of mankind. The County Society has provided from its ranks of leading physicians a number of presidents of the State Society: in 1865, Dr Henry W. Dean, 1873, Dr Edward Mott Moore, 1886, Dr William S. Ely, 1898, Dr John O. Roe, 1912, Dr John F. W. Whitbeck, 1924, Dr Owen E. Jones. And in the Spring of 1937, the State Society will meet in Rochester with Dr Floyd S. Winslow of Rochester, in the presidential chair.

Names of many men who faithfully and excellently served as members and officers of

the County Society, have not been mentioned in this account. A more lengthy history would have much to say of their work. We have avoided as far as possible, tribute to those who are still among us. We are too close to them to clearly distinguish whom should be honored above others. History, like paintings, must be viewed from a distance, if one would see the whole picture.

In closing, may we say as we did in the beginning of this record, that these historical events have been related by a layman, perhaps not fully understanding all that transpired in these bygone medical meetings but appreciating to the utmost, the earnest efforts of these medical men who accomplished great deeds through organized medicine, so that there may be better and happier living for all. Having quoted so

freely in these pages from former presidents of the State Society, men who have served and passed on, we close with another quotation, this one from the annual address of Dr Henry W Dean of Rochester, president of the State Society in 1866. Dr Dean closed his address with these words, "Let medicine continue her unwearied efforts in the realm of physical observation and experiment, let her widen perpetually her range of mechanical and scientific resources, and let her with this, blend all proper, judicious appeals to that intelligent, immortal nature with which she has to deal, then she will fulfill her mission in all its unspeakable grandeur."

NOTE The writer wishes to express thanks to Dr Norris G Orchard of Rochester for editing this paper

Medical Society of the State of New York Presidents

1807	William McClelland	Albany	1874	George J Fisher	Sing Sing
1808-10	Nicholas Romayne	New York	1875	Thomas F Rochester	Buffalo
1811	William Wilson	Columbia	1876	Edward R Squibb	Brooklyn
1812-14	John R. B. Rodgers	New York	1877	J Foster Jenkins	Yonkers
1815-16	Joseph White	Otsego	1878	D B St. John Roosa	New York
1817-20	John Stearns	Albany	1879	Henry D Didama	Syracuse
1821-22	Samuel L Mitchell	New York	1880	William H Bailey	Albany
1823-24	Alexander Coventry	Utica	1881	Abraham Jacobi	New York
1825-26	James R. Manley	New York	1882	Harvey Jewett	Canandaigua
1827-29	Theodore Romeyn Beck	Albany	1883	Alexander Hutchins	Brooklyn
1830-31	Jonathan Eights	Albany	1884	B F Sherman	Ogdensburg
1832-33	Thomas Spencer	Madison	1885	Albert VanderVeer	Albany
1834-35	John H. Steel	Saratoga	1886	William S Ely	Rochester
1836-37	James McNaughton	Albany	1887	Alfred L Loomis	New York
1838-39	Laurens Hull	Oneida	1888	Samuel B Ward	Albany
1840	Sumner Ely	Otsego	1889	Daniel Lewis	New York
1841	John B Beck	New York	1890	William Warren Potter	Buffalo
1842	William Taylor	Onondaga	1891	A. Walter Sinter	Herkimer
1843	Samuel White	Columbia	1892	Lewis S Pilcher	Brooklyn
1844	Joel A. White	Albany	1893	Herman Bendell	Albany
1845	James Webster	Rochester	1894	George Henry Fox	New York
1846	John McCall	Utica	1895	Roswell Park	Buffalo
1847	Thomas W Blatchford	Troy	1896	James D Spencer	Watertown
1848-49	Alexander H Stevens	New York	1897	Seneca D Powell	New York
1850	Alexander Thompson	Aurora	1898	John O Roe	Rochester
1851	Robert G Frary	Hudson	1899	Willis G MacDonald	Albany
1852	Alonza Clark	New York	1900	A M Phelps	New York
1853	J S Sprague	Cooperstown	1901	Henry L. Elser	Syracuse
1854	C B Coventry	Utica	1902	Henry R. Hopkins	Buffalo
1855	Frank H Hamilton	New York	1903	Algernon T Bristow	Brooklyn
1856	Alden March	Albany	1904	Hamilton D Wey	Elmira
1857	Augustus Willard	Greene	1905	Joseph D Bryant	New York
1858	Thomas C Brismade	Troy	1906	Joseph D Bryant	New York
1859	B Fordyce Barker	New York	1907	Frederic Colton Curtis	Albany
1860	Daniel T Jones	Onondaga	1908	Arthur G Root	Albany
1861	Edward H Parker	Poughkeepsie	1909	Charles G Stockton	Buffalo
1862	Thomas Hann	Albany	1910	Charles Stover	Amsterdam
1863	Daniel P Russell	Utica	1911	Wendell C Phillips	New York
1864	Frederick Hyde	Cortland	1912	John F W Whitbeck	Rochester
1865	Henry W Dean	Rochester	1913	William Francis Campbell	Brooklyn
1866	Joseph C Hutchison	Brooklyn	1914	Grover W Wende	Buffalo
1867	John P Gray	Utica	1915	W Stanton Gleason	Newburgh
1868	J V P Quackenbush	Albany	1916	Martin B Tinker	Ithaca
1869	James P White	Buffalo	1917	Alexander Lambert	New York
1870	Samuel O Vanderpoel	Albany	1918	Thomas H Halsted	Syracuse
1871	William C Wey	Elmira	1919	Grant C Madill	Ogdensburg
1872	C. R. Agnew	New York	1920	J Richard Kevin	Brooklyn
1873	Edward Mott Moore	Rochester			

1921	James F. Rooney	Alhany	1929	James N. VanderVeer	Albany
1922	Arthur Woodward Booth	Elmira	1930	William H. Ross	Brentwood
1923	Orrin Sage Wightman	New York	1931	William D. Johnson	Batavia
1924	Owen E. Jones	Rochester	1932	Charles Gordon Heyd	New York
1925	Nathan B. VanEtten	New York	1933	Frederick H. Flaherty	Syracuse
1926	George M. Fisher	Utica	1934	Arthur J. Bedell	Albany
1927	James E. Sadlier	Poughkeepsie	1935	Frederic E. Sondern	New York
1928	Harry R. Trick	Buffalo	1936	Floyd S. Winslow	Rochester

Medical Society of the County of Monroe Presidents

1821	Alexander Kelsey	1865	E. W. Armstrong	1901	John F. Whitbeck
1822	Frederick F. Backus	1866	Socrates Smith	1902	Lewis W. Rose
1823	Alexander Kelsey	1867	Lawrence McKay	1903	Charles R. Barber
1824-25	Linus Stevens	1868	Lawrence McKay	1904	Wheelock Ruder
1826-27	John D. Henry	1869	Charles E. Rider	1905	William M. Brown
1828-29	John B. Elwood	1870	H. F. Montgomery	1906	Robert G. Cook
1830-31	Frederick F. Backus	1871	Henry W. Dean	1907	William L. Conklin
1832	Freeman Edson	1872	Edward Mott Moore	1908	Charles D. Young
1833	Berkeley Gillette	1873	W. C. Clayton	1909	Thomas A. O'Hare
1834	John D. Henry	1874	David Little	1910	Charles E. Darrow
1835	I. W. Smith	1875	William S. Ely	1911	William B. Jones
1836	William W. Reed	1876	Enoch V. Stoddard	1912	Seelye W. Little
1837	W. W. Brice	1877	Jacob L. Denman	1913	Charles R. Witherspoon
1838-39	Frederick F. Backus	1878	Bleeker L. Hovey	1914	Albert C. Snell
1840-41	Malthy Strong	1879	Byron J. Preston	1915	Owen E. Jones
1842	Samuel B. Bradley	1880	Samuel Holman	1916	Frederick W. Seymour
1843	James Webster	1881	Thomas B. Collins	1917	Myron B. Palmer
1844	James Webster	1882	Austin Mandeville	1918	James P. Brady
1845	E. W. Armstrong	1883	Julius J. Kempe	1919	Edward G. Nugent
1846	Davis Carpenter	1884	Edward Mott Moore	1920	E. Wood Ruggles
1847	J. E. Camp	1885	Archibald Dann	1921	George H. Gave
1848	Socrates Smith	1886	Paul D. Carpenter	1922	Charles O. Boswell
1849	William W. Reid	1887	Louis A. Weigel	1923	James M. Flynn
1850-51	John R. Smith	1888	Engene H. Howard	1924	Floyd S. Winslow
1852	Edward Mott Moore	1889	Wallace J. Herriman	1925	Alvah S. Miller
1853	Peter McNaughton	1890	Frank A. Jones	1926	Austin G. Morris
1854	Harvey F. Montgomery	1891	John O. Roe	1927	Warren Wooden
1855	William W. Ely	1892	William R. Howard	1928	Cyril Sumner
1856	John F. Whitbeck	1893	Edward W. Mulligan	1929	Charles G. Lenhart
1857	William H. Briggs	1894	T. Oliver Tait	1930	Walter A. Caliban
1858-59	Henry W. Dean	1895	Henry S. Durand	1931-32	Benjamin B. Slater
1860	Henry H. Langworthy	1896	Wallace Sibley	1933	Joseph P. Henry
1861	Edward Mott Moore	1897	Henry T. Williams	1934	Sol J. Appelbaum
1862	R. C. Reynolds	1898	Frank F. Dow	1935	Willard H. Veeder
1863	R. C. Reynolds	1899	Charles S. Starr	1936	Edward T. Wentworth
1864	E. W. Armstrong	1900	Daniel G. Mason		

Rochester Academy of Medicine Presidents

1899	William S. Ely
1900	William S. Ely
1901	William S. Ely
1902	John O. Roe
1903	Edward W. Mulligan
1904	John W. Whitbeck
1905	Edward B. Angell
1906	Louis A. Weigel
1907	Henry T. Williams
1908	Eugene H. Howard
1909	Thomas A. O'Hare
1910	Richard M. Moore
1911	Richard M. Moore
1912	Charles E. Darrow
1913	Charles E. Darrow
1914	Ralph R. Fitch
1915	Ralph R. Fitch
1916	Joseph R. Culkan
1917-18	Joseph R. Culkan
1918-19	Nathan W. Sohle
1919-20	Nathan W. Sohle
1920-21	Edward L. Hanes
1921-22	Edward L. Hanes
1922-23	William I. Dean
1923-24	William M. Brown
1924-25	George W. Goler
1925-26	Leonard W. Jones
1926-27	John R. Williams
1927-28	Stearns S. Bullen
1928-29	Nathan D. McDowell

Rochester Medical Association

1914-5	John O. Roe
1915-6	Frank F. Dow
1916-7	Eugene H. Howard
1917-8	Elmer J. Bissell
1918-9	Henry T. Williams
1919-20	Wesley T. Mulligan
1920-21	David B. Jewett
1921-22	Lorox W. Howk
1922-23	Joseph W. McGill
1923-24	John W. MacCauley
1924-25	Owen E. Jones
1925-26	Samuel H. Rosenthal
1926-27	Edwin H. Wolcott
1927-28	William I. Dean
1928-29	William W. Percy

(The two organizations joined, called Academy of Medicine)

1930 31	Cyril Sumner
1931 32	George M Gelser
1932 33	Edward G Whipple
1933 34	Edward T Wentworth
1934-35	James M Flynn
1935 36	Stearns S Bullen
1936 37	Willis E Bowen

Rochester Pathological Society

Presidents

1869 70	No record	1887 8	William A. Moore	1912 13	George A. Marion
1871	P G Udell	1888 9	Edward W Mulligan	1913 14	W Douglas Ward
1872	Charles S Starr, W C Rogers	1889 90	Benjamin Wilson	1914-15	Christopher F Chaffie
1873	John O Roe, M V Speare	1890 1	Frank F Dow	1915 16	Charles L. Hinchey
1874	George A Wallace, George P Morley	1891 2	Ogden Backus	1916 17	Harvey J Vary
1875	Herbert Boardman, Eugene H Howard	1892 3	Henry S Durand	1917 18	Edward G Whipple
1876	Thomas A. O'Hare, Louis A. Weigel	1893 4	William B Jones	1918 19	George H Gage
1877	Byron I Preston, Edward H Howard	1894 5	Wheelock Rider	1919 20	George M Gelser
1878	Charles E McKelvey, Julius Schmidt	1895 6	Charles R. Barber	1920 21	Nathan D McDowell
1879	George T Benford, John O Roe	1896 7	Henry T Williams	1921 22	Charles Reitz
1880	Charles S Starr William F Sheehan (to May, 1881)	1897-8	Nathan W Soble	1922 23	John Aikman
1881 2	Paul D Carpenter	1898 9	John W MacCauley	1923 24	Arthur P Reed
1882 3	Archibald Dann	1899 00	Hubert Schoonmaker	1924 25	William L Dean
1883-4	William R Howard	1900 1	William M Brown	1925 26	Austin G Morris
1884-5	Charles A Dewey	1901 2	Charles D Young	1926-27	Edward T Wentworth
1885-6	Wallace J Herriman	1902 3	T Oliver Tait	1927 28	Davis H Atwater
1886-7	Eugene H Howard	1903-4	Seelye W Little	1928-29	Willis E. Bowen
		1904-5	Wilhard D Becker	1929 30	Floyd S Winslow
		1905 6	John Zimmer	1930 31	James M Flynn
		1906 7	Clifford V C Comfort	1931 32	Paul W Beaven
		1907 8	E. Wood Ruggles	1932 33	W Douglas Ward
		1908 9	Wesley T Mulligan	1933 34	Warren Wooden
		1909 10	Irving E Harris	1934-35	Sol J Appelbaum
		1910 11	Edmund C Boddy	1935 36	Frederick J Garlick
		1911 12	Myron B Palmer	1936 37	Joseph P Henry

New York State Medical Association

Presidents

1884	Henry D Didama	Syracuse	1895	Austin Flint	New York
1885	John P Gray	Utica	1896	Darwin Colvin	Clyde
1886	E. Mott Moore	Rochester	1897	Charles Phelps	New York
1887	Isaac E Taylor	New York	1898	Douglas Ayers	Ft. Plain
1888	John Cronyn	Buffalo	1899	Joseph D Bryant	New York
1889	William T Lusk	New York	1900	E D Ferguson	Troy
1890	John G Orton	Binghamton	1901	John A Wyeth	New York
1891	Stephen Smith	New York	1902	Alvin A Hnhbell	Buffalo
1892	Judson B Andrews	Buffalo	1903	I Orley Stranahan	Rome
1893	S B W McLeod	New York	1904	William H Thornton	Buffalo
1894	Thomas D Strong	Westfield	1905	Samuel W S Toms	Nyack

Rochester Medical Society

Presidents

1865-66	John F Whitbeck	1871	William W Ely	1877	Mantland L Mallory
1867	Henry W Dean	1872	William H Briggs	1878	Charles E. Rider
1868	David Little	1873	Charles E Rider	1879	Charles Forbes
1869	George Swinburne	1874	William B Ely	1880	William S Ely
1870	H H Langworthy	1875	Enoch V Stoddard	1881	Porter Farley
		1876	E. Mott Moore		

THE END OF A COUNTY SOCIETY

The Wyoming State Medical Society has rescinded the charter of one of its county societies, because, as officially explained, for years the county society "has been a hot-bed of contention and has not been a factor in elevating public opinion of the local

medical profession The absolute refusal of that Society to comply with an order of the Council, sitting as the highest court in our State Society, was the cause of rescinding its charter, thus ending its life"

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings to this department one month in advance, for the information of members who may be interested

Chautauqua County

THIRTY-FIVE MEMBERS were present at the meeting of the Jamestown Medical Society held Nov 19 at Hotel Jamestown. Dr George M Shearer, president, presided at the session.

Dr Carl H Lenhart, professor of surgery at Western Reserve University, gave a paper on "Surgical Diagnosis." Dr Milton J Johnson, Dr George W Cottis, Dr Harold A Blaisdell, Dr Hammerstrom and others present took part in the discussion. A smorgasbord was served.

At the next meeting, on January 28, Dr Herbert A. Smith, professor of surgery at the University of Buffalo, will speak on "Discussions and Conclusions of Gastric Surgery." Dr Cottis will lead the discussion.

Chemung County

A CENTURY OF MEDICINE in Chemung County was reviewed on Nov 21 by the Chemung County Medical Society at its centennial celebration at the Mark Twain Hotel in Elmira.

More than one hundred physicians and dentists from six counties in southern New York and northern Pennsylvania heard Dr Floyd S Winslow of Rochester, president of the State Medical Society, praise the county society's illustrious history and its present strength and service.

After the commemorative dinner Doctor Winslow opened the speaking program with a brief resume of social problems which the medical profession must face.

Review of medicine in the county for the past 100 years was made by Dr Arthur W Booth in a paper, "A Century of Medicine in Chemung County."

"Medicine in the '90's," a paper by Dr Ross G Loop, reviewed the practices and medical beliefs just before the turn of the century when he entered the profession.

Dr Anna Stuart, introduced as "one of the most lovable characters medicine ever produced," spoke on women physicians in Chemung County.

Elmira has always been a haven for women physicians, she said, chiefly because of the respect the city bore for Mrs Rachel Gleason.

Dr Reeve B Howland described instru-

ments used by physicians at the turn of the century.

The centennial program closed with a playlet, "The Doctor's Dream" which contrasted the medical knowledge of 1840 with that of today. The skit was written by Doctor Booth and directed by John Colgan, dramatic coach at Elmira Free Academy.

Those in the cast were Doctors Wytenbach, Charles Stevens, Joseph S Lewis, LaRue Colegrove, Lawrence L Hobler and R Scott Howland.

Chenango County

THE 132d ANNUAL MEETING of the Chenango County Medical Society was held on Dec 8. After a luncheon with the Norwich Rotary Club at the Chenango Hotel, the society held its business session at the Norwich Hotel and listened to a paper on diabetes mellitus by Dr M S Bloom, of Binghamton. The discussion was opened by Dr Wayland Mason, of Norwich.

Erie County

DR. THEODORE MILLER LEONARD, who had practiced medicine in Buffalo thirty-five years, died of pneumonia on Nov 19 at the age of fifty-nine. He taught medicine at the University of Buffalo for many years.

Franklin County

URGING THE ESTABLISHMENT of county laboratories to facilitate treatment of disease, a delegation of physicians of the Franklin County Medical Society from Saranac Lake and Malone appeared on Dec 1 before the Board of Supervisors.

The project was brought forward through a resolution adopted at the last meeting of the society.

The plan, as outlined by Dr Charles Trembley of Saranac Lake, would provide for a main laboratory at Saranac Lake with branches in Malone and Tupper Lake. The state would provide \$2,500 for equipment of each of these. The county would have to contribute about \$4,500 for maintenance to which the state would add an equal amount, creating a \$9,000 maintenance fund.

Dr Trembley said that the appropriation of \$4,500 might be cut down to some extent

through payment for the services of the laboratory by those who were able

Dr Trembley, Dr Daisy Van Dyke, Malone village health officer, and Dr John E White of Malone presented arguments in favor of the laboratory plan

They pointed out that it would be a factor often in saving lives of patients in cases where an immediate diagnosis and serum treatment was imperative. In the case of pneumonia there exist several different types, each requiring a different serum. By "typing" the case immediately, prompt treatment might bring relief and save the life of the patient.

Under the present system it is necessary to send cultures to Albany with the result that there is considerable delay

The delegation was assured by Chairman Arthur D Erwin that careful attention would be given the proposal by the board

Fulton County

DR. PHILLIP BARTON of Amsterdam was the speaker at the regular monthly meeting of the Medical Society of Fulton County held on Nov 19 at Hotel Johnstown in Gloversville. Dr Barton's subject was "Bronchoscopy in General Medicine"

There were about twenty members in attendance

Genesee County

A SPECIAL COMMITTEE of the Genesee County Medical Society is considering organizing a ladies' auxiliary

The committee will investigate and report at the next meeting. Officers elected at the last meeting are Dr Elmer E Owen, president, Dr W C Swasey, vice president, and Dr Peter J DiNatale, secretary-treasurer

Jefferson County

DR. WILLIAM J KELLOW, seventy-seven, of Watertown, who retired in 1929 after an active medical practice of forty-seven years, of which thirty-eight years were spent in Watertown, died on Nov 23 at St. Petersburg, Fla., where he and his wife were spending the winter

Dr Kellow was born Sept 15, 1859, at Taron, Burke county, Ont., near Toronto. He studied at Toronto Medical college, Victoria college at Coburg, and McGill university at Montreal

He received his diploma and degree of doctor of medicine from Victoria college on May 16, 1882

From 1883 to 1890 he practiced in Harrisville. The only doctor in the Harrisville area in those days, he had an extensive

territory to cover as the nearest doctors were at Gouverneur on the north, Natural Bridge to the west, and Croghan to the south. There were lumber camps in the deep forests, isolated farm homes and a wide area of unbroken wilderness. The automobile had not been heard of and the young physician had to cover this wide territory by horse and rig. The population was scattered among lumber hamlets

On winter nights he was compelled to travel with horse and sleigh over unbroken roads to reach his patients and many times he tried to reach some farm or camp miles away at a late hour of the night. It was not unusual for him to have to use six horses in a day and there were times when Dr Kellow had to tramp ten miles through the snow in the night to reach some patient's bedside, the trips being impossible with horse and sleigh

Continual driving about the rough country roads finally impaired his health and he was advised by another physician to locate in some center where he could do more walking and less riding

After eight years in the forest territory, Dr Kellow went to New York for six months, spending the time in the various hospitals and the Post-Graduate Medical school and hospital, and then he came to Watertown to continue his practice

Kings County

THE MATERNITY CENTER DIVISION of the Brooklyn V N A has adopted a five-point program in the further advancement this year of its effort to safeguard the health of mothers and new-born babies and to assist in the movement to reduce the maternity and infant mortality rate in Brooklyn. Mrs Albert W Meisel, chairman of the division, has announced

The five-point program follows

1 To assist the Committee on Maternal Welfare of the Medical Society of the County of Kings in the study of all maternal deaths as they occur in Brooklyn.

2 To arrange groups in Brooklyn to be addressed by physicians on "What Constitutes Adequate Maternal Care?"

3 To conduct classes giving instruction in prenatal, infant, and postnatal care to expectant mothers

4 To compile and maintain a current resource file on all maternity facilities in Brooklyn

5 To visit expectant mothers in their homes and under the direction of a physician teach hygiene, observe adverse symptoms and help plan for the expected baby

Livingston County

DR WILLIAM H KOBER of Lima was elected president of the Livingston County Medical Society at its annual meeting at Avon

Other officers are Dr Charles Smarzo vice-president, Dr Robert Lewis, secretary and treasurer

Dr J M Burt was named delegate to the state convention and Dr F V Foster alternate The speaker of the evening was Dr Floyd Winslow

Monroe County

URGENT RECOMMENDATION that every state pass a law requiring persons considering marriage to be blood tested at approved laboratories was made in Rochester by Dr Thomas Parran Jr, surgeon general of the United States on Dec 2

Doctor Parran made the recommendation in a plea for public co-operation on the subject "Why Not Stamp Out Syphilis?" before several hundred Rochesterians in the Chamber of Commerce

"Rochester, a pioneer in the work, ranks highest of any city in the country in health," he said, paying tribute to the work of Dr Joseph Roby, deputy health officer

Rochester can point to its record with pride and thanks for the co-operation of an efficient Health Bureau, the Chamber of Commerce, the Medical Society of Monroe County, and the County Tuberculosis and Health Association, he declared

DR RALPH HERMON MAJOR, professor of internal medicine at the University of Kansas, lectured on Dec 3 in the Rochester Academy of Medicine on Lipoid nephrosis

He is the author of several medical books and during the World War was a captain in the Medical Corps

THESE OFFICERS were elected at the 116th annual meeting of the Medical Society of the County of Monroe on Dec 15

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Delegates to State Society—for two years Dr C V Costello and Dr E T Wentworth Alternates—Dr Frank Colgan and Dr E G Whipple Members of Milk Commission—for three years Dr Lloyd Allen and Dr Howard Rowley

New York County

CO-OPERATION BETWEEN DOCTORS and den-

tists in the early diagnosis of syphilis and cancer was discussed by the joint committee of the Organized Medical and Dental Professions of the City of New York at its sixth annual convention in the Hotel Pennsylvania on Dec 7

Dentists have a social responsibility in detecting symptoms of cancer and syphilis in their patients according to papers presented at the meeting The consensus was that the average dentist had enough medical knowledge to be able to make a tentative diagnosis of either disease

Dr Samuel Feldman, attending dermatologist at Morrisania Hospital and chief of clinic at the Bronx Hospital, reported that swellings and ulcerations in the mouth often were the first symptoms of syphilis or cancer He warned that poorly fitting false teeth might cause irritation which might produce a cancerous condition

"Continued irritation of the mucus membrane of the tongue or the lining of the mouth predisposes to cancer," he said

In New York City two and one-half per cent of the population had syphilis infection, he said, while in the whole nation the infection rate was five per cent Because of the lack of clinics the syphilis rate in country regions usually was double that of the cities, he said

"Mouth lesions of this disease come as the result of drinking from a glass or cup that has been used by a person who has this disease in active form," he added

Dr Hayes E Martin, attending surgeon at Memorial Hospital, called on dentists to be alert constantly for early symptoms of cancer of the lip and mouth cavity

"In a considerable number of cases in our clinic we find that credit for the first tentative diagnosis of cancer should be given to the family dentist," he said "A close co-operation between the medical and dental profession is of great importance to public health Many patients are indebted to their dentists for the first recognition of cancer of the mouth while the disease was in the early and curable stage"

DR WARREN STONE BICKHAM, seventy five, surgeon and author of surgical text books, died at his home on Dec 1

Dr Bickham, a native of Louisiana, formerly was an instructor of surgery at New York Post-Graduate Medical School and Hospital and Polyclinic Medical School

He was a fellow of the New York Academy of Medicine and the American College of Surgeons and a member of the Yale Club and the Authors' Club of London

Onondaga County

DR. J. R. WISEMAN was elected president of the Onondaga County Medical Society on Dec. 1. Other officers elected were Dr. O. W. H. Mitchell, vice president, Dr. L. E. Sutton, secretary, and Dr. J. F. Cahill, treasurer.

Ontario County

DR. ALFRED M. MEAD, senior member of the attending staff of Thompson Memorial Hospital in Canandaigua, and a member of the Board of Directors, was honor guest at a dinner given by the hospital on Nov. 21 in the Nurses' Home. It was Dr. Mead's eightieth birthday anniversary. Despite his advanced years, he is in good health, attends to his practice, and as a member of the attending staff visits the hospital daily.

Dr. Mead graduated from Buffalo Medical College in 1880 and opened offices for general practice soon after, completing fifty-six years of active service last March. He is active in community life as well as in his profession and has served in various public offices, including county coroner, trustee and health officer of Victor village and president of the Board of Education of Victor High School. Among medical organizations, he is a member of the Ontario County Medical Society, which six years ago honored completion of his half-century of membership with a complimentary dinner and other fitting tributes.

Otsego County

THE ANNUAL MEETING of the Otsego County Medical Society was held at Cooper Inn, Cooperstown, on December 9, at which time the following officers for 1937 were elected:

President, Dr. Francis F. Harrison, Vice-President, Dr. Norman W. Getman, Treasurer, Dr. Frederick E. Bolt, Secretary, Dr. Floyd J. Atwell, Censor, Dr. Earl C. Winsor, Delegate for the Society, Dr. Floyd J. Atwell, Alternate Delegate, Dr. Edwin P. Hall, Workmen's Compensation Committee, five-year term, Dr. Monroe McIver, and a member to the Workmen's Compensation Committee to fill the vacancy caused by the death of Dr. Mills, Dr. Alexander F. Carson. Reported by F. J. Atwell, M.D., Secretary.

Putnam County

INTERESTING MEETINGS have been held during recent months by the Putnam County Medical Society, as reported by Dr. John T. Jenkin, of Lake Mahopac, Secretary.

The meetings were held at the Carmel Country Club, at Carmel. The following speakers have addressed the Society:

October 9 Dr. Raymond H. Goodale, Associate Professor of Clinical Pathology at Boston University and former Professor of Pathology at American University, Beirut, Syria, spoke upon "Pathologic Physiology of the Liver."

November 4 Dr. William J. Vogeler, Physician to St. John's Riverside Hospital, Yonkers, New York, spoke upon "Coronary Thrombosis and its Electrocardiographic Findings."

December 2 Dr. James E. Sadlier, Surgeon to St. Francis Hospital, Poughkeepsie, spoke upon "Surgery of the Large Intestine."

Queens County

DR. EVAN W. McLAVE attending physician at St. John's and Bellevue Hospitals and chief of medical clinic at New York Medical College, Manhattan, spoke on the clinical manifestations and treatment of lobar pneumonia on Dec. 4 at the Queens County Medical Society Building.

The program was held under the auspices of the committee on graduate education of the Queens County Medical Society.

Rockland County

THE MEDICAL SOCIETY of the County of Rockland elected the following officers for 1937 at the annual meeting Dec. 2, at Nyack, as reported by Dr. Ryan, Secretary:

President, Dr. George W. Unsworth, Vice-President, Dr. Frederick A. Schroeder, Secretary, Dr. William J. Ryan, Treasurer, Dr. Dean Miltimore.

The chairmen of the five standing committees are:

Membership, Dr. John W. Sansom, Legislative, Dr. John C. Dingman, Public Health and Public Relations, Dr. George M. Richards, Medical Economics, Dr. Harold S. Heller, Physical Therapy, Dr. Leo G. Weishaar.

STATE SENATOR RAE L. EGBERT addressed the members in a succession of humorous stories and anecdotes, but in closing said that he planned to cooperate with the physicians in his coming term as he had in his last. Dr. William C. Buntin of St. George, S. I., was introduced and as head of the First District Branch invited the physicians to attend the semi-annual clinical sessions.

Dr. Harrison S. Martland, of Newark,

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Medicolegal

LORENZ J. BROSNAN, Esq.

Counsel. Medical Society of the State of New York

Privileged Communications—Dentists

Although there is a considerable amount of precedent throughout the country, both by decided cases, and by statutory enactment upon the subject of confidential communications as affects physicians, there seems to be relatively little authority upon the same subject as it effects dentists. However, in a recently decided case,* the Courts of one of the Southern States had occasion to pass upon the question of whether the rule governing disclosure of professional information by physicians and surgeons included dentists as well.

The case was one instituted against a railway company for damages for an assault claimed to have been committed by a trainmaster. It appeared that the plaintiff was engaged in assisting certain railway porters in transferring baggage at a junction. As he was coming off one of the trains he claimed that the trainmaster had kicked him and told him to stay off the train, and that as he turned to see the cause of the kick, he had been struck in the mouth. The defendant's witnesses testified that the trainmaster had struck the man only after first remonstrating with him against damaging railway property, and to prevent an intended blow from the plaintiff. The plaintiff claimed his injuries had included a broken tooth and a condition of inflammation and pus about the said tooth.

Upon the trial of the action the plaintiff testified that he had consulted a dentist and received treatment, but when the defendant undertook to introduce his testimony in evidence an objection was made by the plaintiff to such testimony as confidential in nature. The statutory provision under which the objection to the dentist's testimony was taken was as follows:

Communications privileged — All communications made to a physician or surgeon by a patient under his charge or by one seeking professional advice, are hereby declared to be privileged, and such physician or surgeon shall not be required to disclose the same in any

legal proceeding, except at the instance of the patient.

The Court after a colloquy with counsel in which he elicited the opinion of counsel that "a dentist is a physician" sustained the objection and ruled that the dentist should not testify. The trial resulted in a judgment in favor of the plaintiff.

Upon an appeal, the Appellate Court ruled that the Trial Judge had erroneously ruled upon the question, but affirmed the judgment since it did not appear that if the dentist had testified fully the outcome of the case would have been different.

In its opinion the Court said:

The purpose of this statute was to protect physicians and surgeons from having to testify as to communications made to them in their professional capacity, and to protect patients from having to disclose statements made to physicians. The statute must be limited to its language and clear purpose. It has the effect of preventing facts from being disclosed which would often be material to the administration of justice, and it should not be extended by construction.

In this State the statute regulating the disclosure of professional information is Section 352 of the Civil Practice Act which provides in part as follows:

Physicians and nurses not to disclose professional information. A person duly authorized to practice physic or surgery, or a professional or registered nurse, shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, ***

Some twenty years ago in a case* which came before the Appellate Term of the Supreme Court it was held that said section had no applicability to dentists. In the course of the opinion in that case the Court said:

Strictly speaking a dentist might be included within the description relating to those who practice "surgery," but, as the term "surgery" is employed in the Statute, it does not include one engaged in the practice of dentistry. ***

In early days in England the province of

*Gulf, Mobile & N R Co v Willis, 157 So 899

*Howe v Regensburg, 75 Misc. 132

N J, chief medical examiner of Essex County, New Jersey, was introduced as the principal speaker, and illustrated his talk, "Some Interesting Cases from the Medical Examiner's Office" with lantern slides, showing various pictures of bodies found in notable murder and suicide cases in the files of the Essex County police.

Prior to the talk, Dr S R Monteith gave several solos and led the group in singing.

THE WOMAN'S AUXILIARY to the Rockland County Medical Society was organized at a meeting held at Summit Park Recreation Hall on Wednesday afternoon, November 4.

The officers of the organization are President, Mrs S W S Toms, president-elect, Mrs A N Selman, first vice-president, Mrs W J Ryan, second vice-president, Mrs F A Glass, recording secretary, Mrs E H Kline, corresponding secretary, Mrs J Pomerantz, treasurer, Mrs L G Weishaar, historian, Mrs George M Richards.

Schenectady County

DR ARTHUR Q PENTA, director of the bronchoscopic clinic in the Schenectady City hospital, has been awarded a membership in the National Academy of Medicine in Brazil. The award is in recognition of Dr Penta's outstanding work in the field of bronchial asthma and his contribution to South American medicine in relationship to oral infection to pulmonary suppuration. The honor is limited to few foreign physicians.

Dr Penta plans to leave in July for Rio de Janeiro to be present at a special meeting of the National Academy of Medicine, when he will receive the official medalion of the academy.

Seneca County

ESTABLISHMENT OF A COUNTY-OWNED laboratory, to be used by the physicians of Seneca County as a helpful factor in the prompt and efficient diagnosis of disease was urged on Dec. 3 by four representatives of the Seneca County Medical Society, who appeared before the Seneca County Board of Supervisors.

The representatives of the medical group, each of whom spoke briefly in favor of creating a laboratory were Drs W R Holmes and Edward M Wellberry of Waterloo, and Drs Frederick W Lester and Robert F Gibbs of Seneca Falls.

Dr George B Adams, director of the Cayuga County laboratory in Auburn, told the county governing board about the man-

ner of establishing a county-owned laboratory, its many advantages and its cost.

Doctor Adams estimated the cost of establishing a laboratory in Seneca County at between \$5,000 and \$6,000.

Suffolk County

THE SUFFOLK COUNTY Medical Society will build and present to the Suffolk Boy Scout Council a small infirmary hut for use at Camp Baiting Hollow, according to Dr Grover A Silliman of Sayville. The infirmary, to be ready for use next Summer, will be for the occasional camper who needs special attention.

Tioga County

DR I N PETERSON, SECRETARY, reports that the annual meeting of the Medical Society of the County of Tioga was held at Owego on Dec 1. There were thirty-two members and guests present.

Following a turkey dinner, Dr L D Hyde called the meeting to order. After other business the following officers were elected for 1937: President, Dr L D Hyde, Vice-President, Dr C S Johnson, Secretary-Treasurer, Dr I N Peterson, Censors, Dr F A Carpenter, Dr E E Beck, Dr F S Spencer.

The Chairman of the Program Committee, Dr Osborne, introduced Dr John Deegan of the Herman Biggs Memorial Hospital at Ithaca who spoke on the scope and plan of the work being started at this institution. Dr Osborne then introduced Dr Ethan Flagg Butler of the same hospital who gave the society a clear and comprehensive discussion of "The Surgical Treatment of Pulmonary Tuberculosis." The lecture was discussed at some length by the members present.

Warren County

AT A MEETING of the Glens Falls Academy of Medicine on Nov 27 an address on "Hyperparathyroidism" was delivered by Dr Fuller Albright of Boston, Mass. Dr Albright is associate professor of medicine at Harvard Medical School.

MEMBERS OF THE GLENS FALLS Medical staff met on Dec 1 in Glens Falls Hospital. Dr J Leonard Byrnes of Hudson Falls suggested the need of complete medical and surgical equipment in the ambulance. The surgical committee was appointed to look into the matter. Dr Dwight M Sawyer presented a paper on the death of two patients recently in the hospital and their cases were discussed.

Across the Desk

Cutting "Siamese Twins" Apart

A RELATIVE IS SOMETIMES SPOKEN of as a "connection," but when the connection is actual, then the relatives are candidates for circus sideshows and museums of freaks, parading as "Siamese twins." It was none other than the immortal and redoubtable P T Barnum who started the exhibition of these linked ones when he imported "Chang and Eng" from Siam and exhibited them to the gaping gaze of the gullible. Such freaks of nature are also of interest to the medical profession, especially when the surgeon is called in to separate them, as sometimes happens.

It is of course almost unthinkable that one conjoined twin should die and the other survive. In some cases, like Chang and Eng, the twins have a joint circulatory system, and any infection invading one inevitably affects the other too. The linked Filipino brothers who died at the York Hospital in New York City a few weeks ago had independent circulatory systems, and when Lucio Godino died of rheumatic fever on Nov. 24, the surgeons took a long chance and severed the tissue that held Simplicio to him. The link, according to the information given out to the press, was a mass of muscular tissue twenty-four inches in circumference, at the base of the spine. "Organically," we are informed, "they were separate except for the fact that the lower end of Simplicio's large intestine passed through the connecting stalk into Lucio's body where the two alimentary systems merged into one. After the separation, an operation was necessary to reconstruct plastically the outlet of Simplicio's colon." At first Simplicio seemed to be recuperating from the operation, but on Dec. 4 spinal meningitis developed, and he died the next evening.

Handy Military Formation

The Godino twins were born in the island of Samar, in the Philippines, twenty-eight years ago, and when they were twenty-one they married Natividad and Victorina Matos, sisters. When they applied for U S citizenship, we read, they were told that in order to be eligible for it, they

would first have to serve three years in the Philippine Army! As they faced in opposite directions when walking, they would at least always be ready for advance or retreat, and the command "about face" would require no exertion at all.

The condition in Siamese twins is considered to be caused by a joining of two fertilized life cells at the moment of conception. Sometimes the twins are joined at the hip, sometimes at the skull or stomach. Those that have survived childhood have been joined at the hip. In addition, in most cases, to sharing one circulatory system twins have been known that shared one stomach, one alimentary canal, and even one heart. These types usually do not survive birth and more often die in the fetal state.

Two Successful Separations

Is it possible to separate conjoined twins successfully in infancy? By a strange coincidence, there came to this desk at the time of the Godino operation two medical journals, one from Minnesota, over 1,000 miles to the west, the other from London, 3,000 miles to the east, both telling of successful operations of this kind. A correspondent of the London journal writes that the last previous successful surgical feat of this sort was performed by Dr. Fatius of Basle in 1689.

The rarity of this surgical intervention, then, may warrant some description from the pens of the men who did it. We may give the American surgeon first place, perhaps, because his un-Siamesed twins lived for nine years, healthy and hearty, and apparently normal little girls ready for three meals a day and a few good extra snacks in between. They were Zelda and Elda Alsleben. Elda died last March of pneumonia, which may have had no relation to the operation performed years before by the surgeon. He is Dr. Hillard H. Holm, of Glencoe, Minn., and the story appears in *Minnesota Medicine*, for November, as a report of his paper read at the annual meeting of the Southern Minnesota Medical Association in August. The paper was awarded a medal as the most interesting

the dentist was not recognized, except as it fell within the scope of the functions of the "barber-surgeon," whose multitudinous duties often included those not only of the barber and surgeon, but the physician and dentist as well.

Within quite recent times it was customary for barbers and blacksmiths to extract teeth. Formerly the work of filling and plating teeth was frequently performed by the jeweler. A process of integration and differentiation has taken place, and the separate and distinct profession of dentistry has come into existence. That this specialization has resulted beneficially to the community and that dentistry has now become a highly developed science, requiring of its practitioners advanced knowledge and skill, is doubtless true, but this fact does not militate against the construction of section 834 of the Code of Civil Procedure, excluding a dentist from the operation of its provisions. There is clear evidence in the statutes of this State of a legislative intent to regard the two professions of medicine and dentistry as separate and distinct.

The Court also referred to an earlier case* decided in one of the mid-western States in which a similar ruling had been made.

In that case the Court said "The purpose of the act is to be considered in determining whether the dentist was intended to be included within its terms. Certainly the terms dentist and surgeon are not interchangeable, and if a dentist is to be held a surgeon, within the meaning of this act, it must be because his business as a dentist is a branch of surgery. It is apparent that the act relates to general practitioners, and to those whose business as a whole comes within the definition of physician or surgeon. A dentist is one whose profession it is to clean and extract teeth, repair them when diseased and replace them, when necessary, by artificial ones."

While the definition of a dentist here given seems to us to be too restricted, in view of the progress as a science which dentistry has recently made, we are of the opinion that the decision in the case quoted was correct and that it properly interpreted the meaning which the Legislature intended should be given to that statute.

Alleged Illegal Commitment

Two physicians who were qualified examiners in lunacy were called upon by a City Judge to come to his office for the

*People v DeFrance, 1104 Mich 563

purpose of examining a person who was charged with being incompetent and in need of care in an institution for the insane. The two doctors jointly made a physical and mental examination of the person in question and found him to be a middle aged man in good health. After a lengthy psychological examination both of the doctors concluded that he was suffering from ideas of persecution and needed institutional care.

The man's wife executed a petition for his commitment and the two doctors as qualified examiners in lunacy executed the usual certificate in lunacy.

Later a charge was made by the alleged incompetent that the papers were defective since he claimed that one of the examiners was distantly related to him and another examination was made in which a third doctor participated, and again the papers were completed and upon said papers he was committed by Court order to a State Hospital.

After he remained in that institution for some period of time an application was made on behalf of the alleged incompetent to obtain his release by habeas corpus proceedings. He obtained a jury trial which resulted in his release. Upon the said trial none of the doctors who had executed the certificates of lunacy were called to testify and as a matter of fact they received no notice of the proceedings.

After some time had elapsed the alleged incompetent instituted an action against the three doctors, charging them with having joined in a conspiracy to deprive him of his liberty and having executed commitment papers knowing that he was in fact in all respects sane. He made an attempt to charge that the doctors were in collusion with a well-known wealthy man in the community acting with the purpose of attempting to railroad the plaintiff into an asylum at the instance of this wealthy man.

Before the case could be reached for trial one of the defendant doctors died and the action consequently abated as to him.

The case came on for trial as a jury case and at the conclusion of the testimony put in on behalf of the plaintiff the action was dismissed. The Court in so deciding thereby exonerated the defendants of all charges that they had acted improperly in connection with the case being apparently in part at least influenced by the manner in which the plaintiff himself testified while on the stand.

According to a doctor, white marks on a man's finger-nails are a sign that he needs to be more careful about his nerves. Black

marks on his thumb-nail are a sign that he should be more careful with his hammering.
—Punch (London)

X-ray plates were also made. From this examination it could be determined that each child had a separate gastrointestinal tract and that there was no union of either stomach to stomach, or intestine to intestine

How it was Done

As Siamese twins could not possibly go through life joined in such a manner and since they had separate organs, it was decided to separate them. Consequently on March 1, when they were about seven weeks old, operation was undertaken

The infants were placed on their sides, being the right side of one baby and the left side of the other. A light ether anesthetic was given. With the scalpel an encircling incision was made through the skin around the pouch, midway between the infants and splitting the umbilicus below. Entrance was gained into the pouch through the upper, or nearest, portion. In order to get into the pouch a thin fascia, a small muscular layer and finally the peritoneum were incised. This was done with extreme care. Moist packs were then inserted to hold back the intestines and the incision carried completely around the pouch through the fascia, muscle and peritoneum up to the ensiform cartilage, which was continuous from one infant to the other. This was cut with a straight scissors. The falsiform ligaments of the livers of the infants being also united, clamps were applied and they were severed and tied off with plain catgut No 2. The infants were thus completely separated.

Following the separation one of the infants was noticed to become very pale and to stop breathing. The anesthetic was stopped and hypodermic of adrenalin and camphorated oil, which had been held in readiness, soon brought the infant back to normal condition. It was now necessary to sew up the openings into the abdomens where the pouch had been. This was a difficult procedure and had to be done quickly. One of the infants was tended by a nurse, the anesthetic being stopped on that one. On the other infant the peritoneal covering was then picked up and dissected back. This was sutured in a continuous running locked suture of plain catgut No 2. Four stay sutures were then placed through the skin, subcutaneous fat, rectifascia and muscle, down to the peritoneum. These were left untied. The rectifascia was then sutured together with No 2, forty-day chromic catgut in a running locked suture. It was somewhat difficult to draw this together in the midportion, due to the fact that we were making a straight wound out of a round opening. The skin was then sutured with plain catgut No 2 in a running, continuous suture. The stay sutures were then tied and dressings applied. The other infant was then given a

small amount of anesthetic and the suturing of the pouch was done in a like manner. Each infant had a small umbilicus at the lower end of the incision after the operation had been completed.

After the infants had been put to bed they were both given hypodermoclysis of normal saline into each leg, approximately 150 c.c. being given to each baby. Twelve hours post-operative the mother nursed each baby, and they took the breast well. She continued to



Fig 2 Nigeria twins showing site and degree of junction

nurse each infant every four hours during their stay in the hospital. Each infant occasionally had crying spells, which was undoubtedly due to some pain, but otherwise they had a remarkable convalescence, the incisions being completely healed in ten days, at which time the stay sutures were removed.

The infants were seen every month after the operation for an entire year, during which time they were nursed by the mother. At the end of five months solid food such as cereals and mashed vegetables were added to their diet. After the first year they were seen at frequent intervals and were weighed and carefully watched.

Two Little Maids of Nigeria

Now we go from Minnesota to Nigeria, Africa. The African twins are a little over one year old and have been leading separate lives for six months. They are now "in every way normal and vigorous infants,"

one at the meeting, which "sounds reasonable," as they say

The Minnesota twins were born in a raging blizzard on January 8, 1927, in a farm home some fifteen miles from town, recalls Dr. Holm. He proceeds

The mother was a primipara. Labor had gone along normally for about eighteen hours. Previous examination of the abdomen had revealed that undoubtedly twins were to be born, as two separate fetal heart tones could be

infants were then rotated so that they were face to face, which apparently untwisted the pouch connecting them. It was a strange sight to behold, and I must admit that Dame Fortune was with me because if the two heads had presented at the same time, instead of a head and a foot, the infants could not have been born without a cesarean section.

Both infants were normal in every way except for their being attached together. Their rectal temperatures were each 99.8 degrees, and pulses 125. Each child's heart and lungs were



Fig 1 (Left) Siamese twins born January 8, 1927 (Minnesota) Six weeks after birth (Right) Two weeks following operation

heard, although the parts could not be definitely determined. At the end of nineteen hours of labor the head of one child was delivered normally, the occiput anterior. On attempting to deliver the shoulders they were found to remain stationary and could not be delivered. It was a baffling situation. After studying the situation carefully I passed my right hand up into the vagina, up alongside the abdomen of the child to be born, and felt two feet. These I grasped and exerting traction on them, at the same time pulled with my left hand on the shoulder of the child being born. Immediately the shoulders slipped out, and along came the feet of the second child as well as the buttocks and the abdomen. The buttocks and feet of the first child were then delivered free of the vagina and a connection was noticed between the twins. The head of the second child was then delivered, as in a breech extraction. One umbilical cord was present, attached at the under surface of the union of the two babies.

Dame Fortune Was With Him

After the cord had been clamped and tied and dressed it was noticed that the pouch connecting the two children was twisted. The

normal in every way. Their abdomens were joined together over an area approximately four inches in diameter and thirteen inches in circumference. The ensiform cartilages were continuous from one child to the other. One umbilicus was present and entered the lower portion of the attachment. Liver and spleen were not palpable in either child.

Blood examination on February 28 showed a hemoglobin of 76 and 78 per cent and red cells of 4,100,000 and 4,300,000 respectively.

X-ray examination was made and plates were taken. One of the children was given a mixture of barium with mother's milk, which it took from the nursing bottle. This was followed up by means of the fluoroscope and it was found that the barium and milk mixture entered into a normal stomach, from which it quickly passed out into the small intestine. The child was spanked and caused to cry, and under the fluoroscope it was seen that the small intestine would push over into the abdominal cavity of the other infant through the pouch, and when the baby stopped its crying the intestine would go back into the proper abdomen. A similar procedure was carried out with the other infant and showed the same condition.

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.*

Delafield & Prudden's Text Book of Pathology Revised by Francis C Wood, M D. Sixteenth edition. Octavo of 1406 pages, illustrated. Baltimore, William Wood & Company 1936. Cloth, \$10.00.

The sixteenth edition of this extremely popular text-book of pathology, has had the welcome received by its predecessors renewed.

To those who object that the book is not sufficiently modern, in that it fails to include a description of some of the more recent advances in pathologic knowledge, let this excerpt from Dr Francis Carter Wood's introduction to this edition be an answer "People still have the same lesions that they had when Delafield and Prudden wrote the first edition, even though the names may have changed, and it is important for the student to learn these lessons."

This book will probably, as did the previous editions, retain its standing as a reference work for the student of pathology, who will derive from its use the satisfaction that his reading, though it may not be of the most modern work, will certainly be authoritative.

EMIL F KOCH

Oral Diagnosis and Treatment Planning A Text for the Dental Student, A Reference Book for the Practitioner and Medical Student. By Kurt H Thoma, D M D. Octavo of 379 pages, illustrated. Philadelphia, W B Saunders Company, 1936. Cloth, \$6.00.

This book lives up to its title in every respect. There is a page devoted to instructions in its use, which makes for ease of consultation, when used as a reference by the practitioner or student. The work is decidedly original, well planned and profusely illustrated.

The author presents in logical sequence the theory of diagnosis and treatment, consisting of examination, diagnosis, tentative, differential, final diagnosis and post-operative prognosis forecast, treatment and treatment planning. The section devoted to methods of examination sets forth technique

for history taking and recording, both for general physical examination, laboratory methods and special examination for dental and oral diseases, concluding with a chapter devoted to roentgen examination of the teeth and jaws. The latter chapter is invaluable to the general medical practitioner, who is so often consulted for an opinion on dental radiographs.

Part III covers clinical diagnosis of dental and oral disease, malformations of the head and jaws, maldevelopment and an excellent chapter on malocclusion of the teeth (which subject we also recommend to the medical practitioner, especially the pediatricist), diagnosis of localized swellings of the oral mucosa and lips, and a separate chapter on disease and swellings of the tongue. These last two chapters contain some very fine photographs and color plates. The chapter on *Diagnosis of Oral Foci, Potential Sources of Systemic Disease*, contains the best thought in modern dental circles.

LAWRENCE J DUNN

Disability Evaluation Principles of Treatment of Compensable Injuries By Earl D McBride, M D. Octavo of 623 pages, illustrated. Philadelphia, J B Lippincott Company 1936. Cloth, \$8.00.

The author describes a method for determining the percentage of disability in those victims of industrial accidents. The provisions of the compensation laws, as to disability awards, of Canada and the United States are briefly summarized.

The method used by the author is described in Chapter II. Various schedules are derived from an analysis of the normal functions of a part as related to the industrial activity of the individual. These schedules aid in estimating the functional disability of the injured. The authors' meaning is clearly illustrated by numerous sketches which accompany these schedules.

The examination of the disabled person is fully and specifically outlined. The disabilities of the various joints and the associated factors which determine the amount of loss of function for which the person

ORDERING BOOKS

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declares the medical man who separated them, D W McLaren, M B, B S, medical officer of the Colonial Medical Service of Nigeria, in the *British Medical Journal* for Nov 14. He writes

The twins (female), born to a Hausa woman in Sokoto Emirate, were united at the epigastrium by a circular funnel of tissue, which at the operation measured about one and a half inches in width and two inches in diameter. The union was such that the children could be turned away from each other to the extent of about a right-angle only. The sterna formed a continuous U-shaped bar of cartilage about half an inch in width across the top of the isthmus. A small single umbilical scar was visible on the under surface, about its middle. The photograph shows well the site and degree of the junction.

The mother, a healthy, well-developed woman aged about twenty-five, had had previously two normal births, the first six years ago, the child (a boy) dying at the age of ten months, and the second (a girl) now alive and well at the age of five years. The twins were born on December 20, 1935, the estimated time of gestation being about 250 days. Birth was apparently not difficult, though the mother admits that she was in labour for nearly twenty-four hours, which is a relatively long labour for a multiparous native woman. She states that the head of one and the feet of the other presented together and that the cord was single the whole way from the juncture to the placenta, which came away very shortly after the birth of the infants.

The twins were first seen at the age of $2\frac{1}{2}$ months, when they appeared to be rather emaciated and anemic, though quite vigorous. It was then apparent that operation was quite feasible, for by compressing the isthmus between the finger and thumb the bowel of the one or the other could be easily reduced into the abdomen, leaving nothing but integument and the bar of sternal cartilage between the fingers. Since the mother was rather reluctant to agree to operation, it was decided to leave them till the age of six months, when it was hoped that they would be more developed and better able to stand the operation. This hope was fulfilled, for on admission to hospital on May 27, at the age of five months, they had grown into quite normal plump infants, though still anemic. It was more evident now that one was a little more developed than the other.

The blood examination on admission showed a red cell count of 3,600,000 per c.mm. and a hemoglobin index (Tallqvist's scale) of forty per cent. Two weeks on an iron mixture raised the count to 4,310,000 per c.mm., and the hemoglobin increased to 55 per cent. The

mother's blood revealed only a slight degree of hypochromic anemia (compared with the average standard of the normal native), with a count of 5,040,000 erythrocytes and a hemoglobin percentage of 70.

The Operation

On June 16 the operation was performed under chloroform anesthesia, without any preliminary preparation apart from the oral administration of glucose. The stronger twin was anesthetized first in the hope that the other would also go under, but after ten minutes of full anesthetization no obvious effect was observed on the second twin, and she had to be separately anesthetized. The operation presented no great difficulty. The incision was made vertically through the middle of the junction, and on opening the peritoneum it was observed that there was a vertically placed peritoneal septum in the upper half with a "foramen" at the lower part, through which bowel from one or the other could easily pass. The only structure divided, apart from the integument, peritoneum, and the sternal cartilage, was the ligamentum teres of the larger twin's liver, and this was found traversing the upper part of the isthmus extraperitoneally. Its connection with the umbilicus was not traced.

As soon as separation had been effected the infants were placed in the supine position, and each wound was sutured up vertically in turn. No attempt was made to trim the projecting cut edges of the sterna or the skin, and only excess of parietal peritoneum was excised. The rectus aponeuroses were thin and attenuated, but the recti themselves seemed undeveloped in this area, after operation it was evident that this was so, since there was in each around the site of union an oval-shaped area, which was quite devoid of muscular tissue. The gap was about two and a half inches in its widest part, and there was no muscle attachment to the lower ends of the sterna. The cut ends of this have straightened out since the operation, this makes the bulge of the abdominal wall in this area less obvious than it might have been had the sternal ends been resected. There is still the probability, of course, that they will develop large umbilical hernias later.

Apart from a slight attack of enteritis in the weaker infant, and a stitch abscess in each wound, the postoperative period was uneventful. The mother was able to breast-feed the children from the first day. The weights just after the operation were ten and twelve lb respectively, and now, six weeks later, thirteen lb each. The blood count has improved to 4,900,000, and the hemoglobin to 60 per cent, they are now in every way normal and vigorous infants.

though omitting many theoretical considerations, supplies much practical material

In the fourth chapter we find methods of training discussed, the management of various types of cases are clearly set forth and the many definite statements seem to be supported by experience with abundant material. It is not always made clear, however, how the methods of training can be applied to young children

Selection of cases for operation, and results of various methods of treatment follow, and the appendix is devoted to description of instruments

This volume doubtless adds a petal to the unfolding strabismus blossom

JOHN N EVANS

A Text-Book of Pharmacology and Therapeutics or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M D Eleventh edition thoroughly revised by C W Edmunds, M D and J A Cunne, M D Octavo of 808 pages, illustrated Philadelphia, Lea & Febiger, 1936 Cloth, \$6 50

The present edition of this outstanding work on Pharmacology brings it into line with the eleventh decennial revision of the Pharmacopoeia of the United States which became official June 1, 1936

Considerable rearrangement of the order of the book and in the grouping of drugs was made with a view to convenience in teaching the subject and ease of learning it

This classic remains a vade mecum in pharmacology

CHARLES SOLOMON

Lobar Pneumonia and Serum Therapy With Special Reference to the Massachusetts Pneumonia Study By Frederick T Lord, M D and Roderick Heffron, M D Octavo of 91 pages, illustrated New York The Commonwealth Fund, 1936 Cloth, \$1 00

This monograph is propaganda in a good cause. It contains only 91 pages and should be read by every internal medicine practitioner

While we must concede that the authors prove their case, up to a certain point, we must hope that control of pneumonia, by serum or otherwise, may soon be more complete than is now claimed

W D LUDLUM

A Textbook of Histology By Joseph Kraska, Jr, M D Octavo of 246 pages, illustrated Baltimore, The Williams & Wilkins Company, 1936 Cloth, \$2 50

The purpose of this text is to present the subject as a specific entity, separated from its usually associated sciences as far as possible, and has been prepared for other students than those of medicine. The medical student, however, will utilize its content

as a meaty outline. Not having the detailed bulk of a medical text and strictly adhering to microscopic anatomy, it less pedantically and very adequately covers its subject. The chapters on bone marrow and the female reproductive system are specifically excellent contributions. Line drawings and other illustrations are practically entirely original and well produced. The text has a very useful field among more interested students of the social sciences, among student biochemists, and physiologists, and should be particularly useful to tissue technicians who understandingly use microscopes

IRVING M DERBY

Medicine and Mankind Edited by Iago Galdston, M D Lectures to the Laity delivered at the New York Academy of Medicine Duodecimo of 216 pages New York, D Appleton-Century Company, Inc, 1936 Cloth, \$2 00

This book, of 216 pages is composed of an Introduction by Eugene H Pool, M D, President of the New York Academy of Medicine, and seven lectures by outstanding physicians, as follows

- I How We Learned about the Human Body, by Benjamin Watson, M D
- II Medicine in the Days of the Grand Monarch, by Howard Haggard, M D
- III Contributions of the Primitive American to American Medicine, by Harlow Brooks, M D (Posthumous)
- IV The Common Denominator of Disease, by George Draper, M D
- V The Organic Background of Disease, by Foster Kennedy, M D
- VI The Story of the Vitamins, by Elmer V McCollum, Ph D
- VII The Mysterv of Death, by Alexis Carrel, M D

The authors have lived up to the theory of the course in an interesting, polished and erudite style, which has largely overcome the difficulties attendant upon imparting highly specialized knowledge to the uninitiated. The New York Academy of Medicine is to be congratulated upon a scholarly production, which cannot fail to be interesting and instructive to a cultured laity

J M VAN COTT

A Diabetic Manual for Practitioners and Patients By Edward L Bortz, M D Octavo of 222 pages illustrated Philadelphia, F A Davis Co, 1936 Cloth

This manual has the fault of almost all the present diabetic manuals—the lay reader is not equipped to distinguish the material only of value to the doctor or medical student and that written for the patient's guid-

should be compensated, are fully presented. The chapter on the industrial "back" is well treated and illustrated. This cannot be said of the chapter on hernia.

The book should be of value to the industrial surgeon and the general practitioner who may have to present cases before the industrial commission.

RALPH WOLFE

The Harvey Lectures Delivered under the auspices of The Harvey Society of New York, 1934-1935. Series XXX. Octavo of 270 pages, illustrated. Baltimore: The Williams & Wilkins Company, 1936. Cloth, \$4.00.

This is a valuable compendium of the lectures delivered under the auspices of the Harvey Society of New York in 1934 and 1935. They include:

The Etiology of Pernicious and Related Macrocytic Anemias

Dr. Wm. Bosworth Castle

The Significance of the Amino Acids in Nutrition

Prof. William Cumming Rose

The Present Geographic Distribution of Yellow Fever and its Significance

Dr. Wilbur A. Sawyer

Processes of Urine Formation in the Amphibian Kidney

Prof. Alfred N. Richards

Specificity in Relation to Hormone and Other Biological Reactions

Dr. E. C. Dodds

The Relation of the Circulation in Voluntary and Plain Muscle to Activity

Prof. G. V. Anrep

Pneumothorax in the Treatment of Pneumonia

Prof. Francis G. Blake

The Isolation and Properties of Crystalline Pepsin and Trypsin

Dr. John H. Northrop

No progressive student of medicine should fail to read this book.

MAX LEDERER

Synopsis of Diseases of the Heart and Arteries By George R. Herrmann, M.D. Duodecimo of 344 pages, illustrated. St. Louis, C. V. Mosby Company, 1936. Cloth, \$4.00.

This is a concise, practical, little volume primarily intended for the undergraduate in medicine and the busy practitioner. The essential facts in cardiology are clearly presented. The illustrations, particularly those in the section on the cardiac arrhythmias, clearly depict the mechanism of these disorders. The discussion of the differential diagnosis of the valvular diseases is excel-

lent. The therapy is presented in a practical and detailed manner. As the author states in his preface, this volume is not written for the cardiologist. To the medical student it can be recommended for the essential and accepted facts in cardiology.

HENRY JOACHIM

Food, Fitness and Figure. By Jacob Buckstein, M.D. Introduction by Harlow Brooks, M.D. Octavo of 252 pages. New York, Emerson Books, Inc., 1936. Cloth, \$2.00.

This book discusses three main problems—the requirements of the body, overweight, and underweight. Separate chapters are devoted to each of the requirements such as protein, carbohydrates, minerals, and vitamins and the part that they play in body maintenance. Although the style and description is popular and interesting, the facts given are scientific. On the subject of overweight, the author is definitely conservative in his advice and does not resort to any drastic steps for loss of weight either in the written matter on the subject or in the prescribed dietary regime which he outlines in detail for a period of fourteen days. The menus given appear to be adequate in all nutritional requirements. He follows this by the same type of outline of regime for the underweight individual.

This work is commendable in that it acquaints the persons seeking this information with a scientific point of view which is tempered by conservatism rather than radicalism which has been the fallacy of so many of our former weight reducing regimes.

MORRIS ANT

Squint Training By M. A. Pugh, M.R.C.S. Octavo of 117 pages, illustrated. New York, Oxford University Press, 1936. Cloth, \$2.75.

The renaissance of interest in the "squint problem" is once again emphasized by the appearance of this little volume.

Miss Pugh is the Medical Officer in charge of the Ophthalmic Department at the Royal London Ophthalmic Hospital. The book discusses in a brief form, causes, pathology (mostly theory) and treatment of squint.

The first chapter discusses the classification of squint as accepted by the author. From the reviewer's point of view this chapter should be elaborated.

The second chapter on preliminary investigation is short but is worthwhile. It refers to some of the methods of measuring squint but does not go into the technique in sufficient detail to permit the beginner to proceed without supervision.

The third chapter on binocular vision,

LOBAR PNEUMONIA IN CHILDHOOD

A Five and a Half Year Clinical Survey at a Municipal Hospital

SAMUEL L. ELLENBERG, M D and ALEXANDER T. MARTIN, M D, *New York City*

From the Pediatric Service of Lincoln Hospital

During the past decade comparatively few clinical or statistical surveys of lobar pneumonia in children have appeared in the literature. This is indeed surprising, for one would not venture to say that this subject is barren of interest, especially in view of the interesting, stimulating, and thought-provoking studies of Griffith¹ in the United States and McNeil² in Great Britain which once again demonstrated that our knowledge of lobar pneumonia in children can always be added to. We, therefore, feel that the present comparative study of lobar pneumonia in children at a Municipal hospital covering a five and a half year period will be of interest to the general practitioner and the pediatricist.

Age

During a five and a half year period covering January 1930 to June 1935, 459 cases of lobar pneumonia were admitted to the Children's Wards of Lincoln Hospital, eighty-nine of these cases were one year and under, and forty-eight cases were between one and two years, so that thirty per cent of the total number admitted were under two years of age. Further statistical study showed that forty per cent of the total were under three years of age, while fifty per cent of the cases were under four years. The smallest number of cases were recorded in the ninth, tenth, eleventh, and twelfth years

of life, while the peak incidence was reached in the first year of life as indicated by Chart I.

Sex

Lobar pneumonia appeared to be more prevalent in our series among the male children, inasmuch as 260 males were affected as compared with 199 females. These findings agree with the few figures recorded in literature. Moody found in his series that 195 males and 180 females were affected.

Season

The greatest number of cases were recorded during the late winter months and the greatest morbidity for the entire five and one-half year period occurred during the month of March with April coming a close second, while the smallest number of cases were noted in July. It is interesting to note that during the period of this clinical study, the peak of cases each year was recorded in different months, thus in 1930, April was the peak, in 1931—January, in 1932 it was December, in 1933—October, in 1934—March, and in 1935—May (Chart II).

Mortality

The mortality at Lincoln Hospital, despite the fact that it is a municipal hospital, and that crowded children's wards

ance The reader is not given the fundamental factor of successful treatment of diabetes, the requirement that the patient be under the supervision of a physician or a clinic whose word he can accept without doubt, argument, or even explanation

There has been too much attempt to educate the patient far beyond his ability "A little knowledge is a dangerous thing"

It is hoped that in the future an effort will be made to present simple general statements to the patient and to avoid the error of writing manuals for use of physician and patient.

Of interest is the grouping of carbohydrate foods in units compared with a lump of sugar or 3 grams Rabinowitch of Montreal uses a slice of bread, carbohydrate 18 grams, as a unit Beardwood and Kelly in Philadelphia have a unit of 5 grams carbohydrate In the Brooklyn Hospital group the unit of carbohydrate is 10 grams

There is a definite trend to use household measures and to get away from the percent value of food stuffs It is reasonable to expect that a uniform standard carbohydrate unit will be adopted by physicians treating diabetics throughout the country

PAUL C ESCHWEILER

A Manual of Practical Obstetrics By O'Donel Browne, M B Octavo of 363 pages, illustrated Baltimore, William Wood and Company, 1936 Cloth, \$6 50

An excellent book, not intended to take the place of more comprehensive works, it is exactly what it sets out to be, a practical manual as good as anything ever published The style is simple and direct, and the teaching very conservative In Occipito-posterior positions delivery is completed with forceps for the same indications as when the occiput is anterior, and slow labor is disregarded The Dublin theory and treatment of eclampsia are set down in detail, and on the whole the book is representative of the conservative Dublin School For the general practitioner the book is admirable.

CHARLES A GORDON

Heart Disease and Tuberculosis Efforts Including Methods of Diaphragmatic and Costal Respiration to Lessen Their Prevalence By S Adolphus Knopf, M D Octavo of 108 pages, illustrated Columbia County, New York, The Livingston Press 1936 Cloth, \$1.25

This little volume is a recapitulation of views presented by various authors respecting the prevalence of tuberculosis and heart disease, emphasizing the prophylactic measures in vogue at the present time. It is a book of great value to the social worker, bringing the economic aspect home to the

patient, the welfare agency and the public. It is an up-to-date treatise upon the sociological aspect of the two great scourges of the human race, tuberculosis and heart disease

SIMON FRUCHT

International Clinics A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc Edited by Louis Hammann, M D Volume 2, 46th Series, 1936 Octavo of 327 pages, illustrated. Philadelphia J B Lippincott Company, 1936 Cloth, \$3 00

This volume maintains the standard of previous issues of the Clinics The digestive tract has been treated surgically by an article on surgical diseases of the gastrointestinal tract in children and one on surgical management of colonic carcinoma

The field of medicine has been generously covered from the effects on health and disease of climatic conditions, diet in treatment of heart disease, hemophilia, nutritional edema, extracellular body fluid to an explanation of the erythrocytic sedimentation test These articles are of unusual interest and will repay a careful study

HENRY M MOSES

Vascular Disorders of the Limbs. Described for Practitioners and Students By Sir Thomas Lewis, M D Octavo of 111 pages New York, The Macmillan Company, 1936 Cloth, \$2 00

This book of 111 pages presents a readable account of vascular diseases of the extremities, written by an expert in clinical research, but for students and practitioners Because it is offered to such readers, the author has stressed only such tests and methods of examinations as can be readily used by clinicians

A consideration of the pathology and treatment of phlebitis, varicose veins and aneurysms has been omitted by the author for valid reasons, but it would seem that the omission of the description of these more common conditions by such a gifted investigator is a great loss to the class of readers to whom this work is addressed

J RAPHAEL

A Study of Masturbation and the Psychosexual Life By John F W Meagher, M D Third edition re-edited and revised by Smith Ely Jelliffe, M D Duodecimo of 149 pages Baltimore, William Wood & Company, 1936 Cloth, \$2 00

This little book now in its third edition is a very sane and sensible discussion of masturbation, with all its various physical, moral and psychic implications It is of particular interest to the psychiatrist

N P RATHBUN

LOBAR PNEUMONIA IN CHILDHOOD

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From the Pediatric Service of Lincoln Hospital

During the past decade comparatively few clinical or statistical surveys of lobar pneumonia in children have appeared in the literature. This is indeed surprising, for one would not venture to say that this subject is barren of interest, especially in view of the interesting, stimulating, and thought-provoking studies of Griffith¹ in the United States and McNeil² in Great Britain which once again demonstrated that our knowledge of lobar pneumonia in children can always be added to. We, therefore, feel that the present comparative study of lobar pneumonia in children at a Municipal hospital covering a five and a half year period will be of interest to the general practitioner and the pediatricist.

Age

During a five and a half year period covering January 1930 to June 1935, 459 cases of lobar pneumonia were admitted to the Children's Wards of Lincoln Hospital, eighty-nine of these cases were one year and under, and forty-eight cases were between one and two years, so that thirty per cent of the total number admitted were under two years of age. Further statistical study showed that forty per cent of the total were under three years of age, while fifty per cent of the cases were under four years. The smallest number of cases were recorded in the ninth, tenth, eleventh, and twelfth years

of life, while the peak incidence was reached in the first year of life as indicated by Chart I.

Sex

Lobar pneumonia appeared to be more prevalent in our series among the male children, inasmuch as 260 males were affected as compared with 199 females. These findings agree with the few figures recorded in literature. Moody found in his series that 195 males and 180 females were affected.

Season

The greatest number of cases were recorded during the late winter months and the greatest morbidity for the entire five and one-half year period occurred during the month of March with April coming a close second, while the smallest number of cases were noted in July. It is interesting to note that during the period of this clinical study, the peak of cases each year was recorded in different months, thus in 1930, April was the peak, in 1931—January, in 1932 it was December, in 1933—October, in 1934—March, and in 1935—May (Chart II).

Mortality

The mortality at Lincoln Hospital, despite the fact that it is a municipal hospital, and that crowded children's wards

made adequate nursing care difficult, compares quite favorably, nevertheless, with the mortality statistics reported in the literature by other observers. Of the 459 lobar pneumonia patients forty were claimed by death—a mortality percentage of 8.6 per cent. This mortality percentage

CHART I

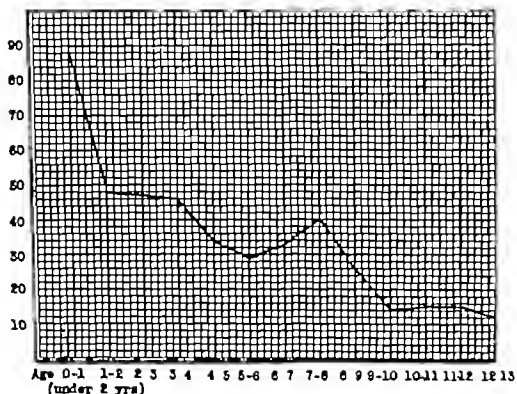
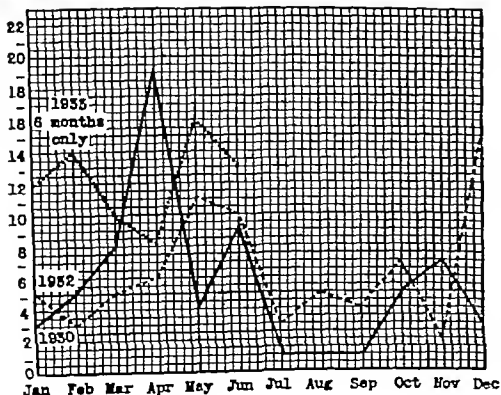
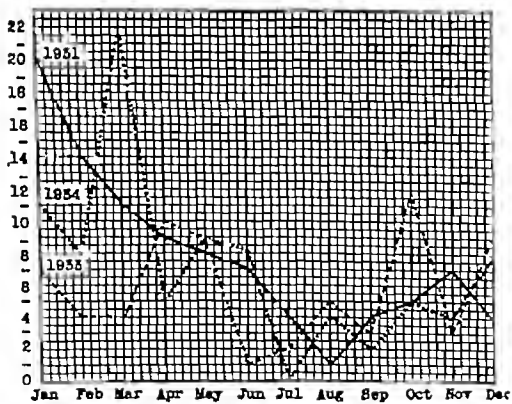


CHART II



could be decreased much further if the noninstitutional deaths, (i.e. deaths occurring less than 48 hours after admission) could be discounted. It must be remembered that any municipal hospital receives a great number of cases which are sent in to it as a last resort measure with a consequent increase in the noninstitutional death statistics. Subtracting the noninstitutional deaths which were eighteen, from the total number of deaths, forty, we arrive at the true mortality rate of 4.7 per cent.

Grulee and Mulherin² report in their series of 116 cases of lobar pneumonia a mortality of seven per cent. Morgan⁴ in his report of 398 cases of lobar pneumonia records a mortality of 9.3 per cent. Moffat found 12.9 per cent mortality in cases believed to be lobar pneumonia while Manace⁵ reported a 9.7 per cent mortality, and Moody⁶ also reported a mortality of 9.6 per cent in his series.

The fact that the mortality is higher in children two years and under is also borne out by this study, for the mortality in this age group is twenty-four per cent as compared to a mortality of 2.1 per cent in the age group above two years. Of the forty deaths in the entire series, thirty-three were two years of age and under, and, of these twenty-six were one year and under. Nemir⁷ reported a mortality of twenty per cent in infants under two years as contrasted with a mortality rate of five per cent in children over two at the Bellevue Hospital Children's Division (this hospital treats approximately the same type of patients as at Lincoln Hospital). Albert⁸ reported 19.2 per cent mortality in children under three years in the Philippine Islands.

X-ray

X-ray films were taken in 306 cases and were not available in the balance of the series either because the child was too ill to be taken to the x-ray room, too ill to be disturbed for portable plates, or because the ward was under quarantine for some contagious disease. In 220 of the patients the x-ray findings agreed with the diagnosis, but in eighty-six cases, or twenty-one per cent the x-ray films were at variance with the clinical impres-

sion, the reports simply reading "No evidence of lesion of lungs"

In the majority of cases where the x-ray was reported as negative, it was, unfortunately, not repeated. Possibly further repetition might have revealed evidence of consolidation in some of these cases, and it is also likely as Charles Hendee Smith⁹ pointed out, that an eccentric x-ray plate might have revealed evidence of consolidation where such consolidation was obscured by the heart shadow. In some instances where x-ray films were taken at intervals during the state of clinical consolidation, confirmatory x-ray evidence was finally obtained, even though the first x-ray film had been negative. However, in still

heart with congestion of the lungs simulated lobar pneumonia, or where a differential diagnosis between a pathological process in the lungs or in the abdomen presented itself the x-ray was found helpful in most, but not all, instances.

A considerable proportion of the positive x-rays in this study showed a partial rather than complete consolidation of the lobe. This is believed to be characteristic of lobar pneumonia in children. The time honored controversy as to whether the pneumonic process begins at the periphery or the hilum of the lung is settled so far as our own series is concerned, in favor of the spread of the pneumonic process from the hilum to the periphery. This conclusion is accounted

TABLE I

Year	Number of cases	Deaths	% Mortality	Deaths—Age 1 year and under	Deaths—Age 2 yrs and under	Above age 2
1930	66	12	18	10	12	0
1931	91	5	5.5	5	5	0
1932	76	4	5.2	1	3	1
1933	66	5	7.5	2	4	1
1934	88	8	9	3	3	5
1935—Jan.—June	72	6	8.3	5	6	0
Total	459	40	8.6	26*	33**	7

*Mortality 1 year and under group = 29%

**Mortality 2 years and under group = 24%

other cases, repeated x-ray films throughout the course of the illness were consistently reported negative despite the definite physical findings of consolidation.

Manace found the clinical diagnosis of lobar pneumonia confirmed in ninety out of ninety-two cases by x-ray. Bromer¹⁰ found in his series eighty-five out of a hundred cases of lobar pneumonia were confirmed by x-ray. Albert reported that the x-ray examination was positive in 125 cases, negative in eight cases, and not definite in sixteen cases. The fact that a considerable number of the x-rays were reported as negative in our series appears to be at variance with the figures recorded by these and other observers, but seems to be in conformity with the critical conclusion of J. C. Grozier Griffith who found that the x-ray was not as reliable as it had been previously considered.

It is of interest that in our series in only few instances did the x-ray reveal pathology which had not been considered clinically. Nevertheless, where a failing

TABLE II—CASES OF LOBAR PNEUMONIA INCORRECTLY DIAGNOSED ON ADMISSION

1	Upper Respiratory Infection (acute pharyngitis)	49
2	Tonsillitis	14
3	Otitis media	12
4	Acute bronchitis	12
5	Acute appendicitis	6
6	Pulmonary tbc.	3
7	Malnutrition	2
8	Bronchopneumonia	2
9	Acute nephritis	2
10	Acute pyelitis	2
11	Gastroenteritis	1
12	Meningitis	1
13	Typhoid	1
14	Grippe	1
15	Tbc meningitis	1
16	Polymyositis	1
17	General peritonitis	1
18	Rheumatic fever	1
19	Active rickets	1
20	Subdural hematoma	1
Total		114

TABLE III—CASES INCORRECTLY DIAGNOSED AS LOBAR PNEUMONIA

1	Bronchopneumonia	2
2	Acute bronchitis	2
3	Upper respiratory infection	2
4	Otitis media	1
5	Acute mastoiditis	1
6	Exacerbation of chronic mastoiditis	1
7	Mediastinal pleurisy	1
8	Toxemia	1
9	Cardiac enlargement plus congestion of lungs	1
Total		12

for by the preponderance of involvement of the lower lobes. In the involvement of the lower lobe the x-ray report most frequently obtained was that of "a shadow in the lower and inner portion of the right (or left) lung field" whereas in the involvement of the upper lobe "a triangular wedge-shaped shadow in the outer part of the upper lobe" would be reported.

In some cases, the x-ray film revealed more lung pathology and other times less than was obtained from the physical findings. It might be mentioned in passing, that it was difficult to tell from an A-P view whether involvement of the upper part of the right lower lobe had occurred, or whether the right middle lobe was involved.

Errors in Diagnosis

Of the 459 cases, 114 did not present sufficient physical findings of lobar pneumonia to warrant such a clinical diagnosis on admission. As indicated in Table II the diagnosis considered in these cases in their order of frequency were upper respiratory infection, acute tonsillitis, acute bronchitis, and otitis media. In distinct contrast to this, in only twelve instances was a diagnosis of lobar pneumonia erroneously made on admission (Table III).

In the early stage of lobar pneumonia, the location of the pneumonic process was not always a simple matter, in fact, different observers examining the patient at the same time varied in their opinion as to the lobe affected, and it was not at all unusual for a child to have his pneumonia for three to four days before a general agreement would be reached among the staff with respect to the consolidated portion of the lung, of course, by that time, the physical signs were so clear-cut as to permit accurate localization.

When physical signs were obtained in the upper half of the lung field posteriorly it was difficult to be sure whether the upper lobe was affected, or whether the upper half of the lower lobe was involved by the pneumonic process.

The physical signs of consolidation came out anywhere from one to eight days after admission. Only occasionally would a

case be admitted in the state of resolution. When this happened the usual diagnosis on admission was that of bronchopneumonia because of the scattering of the physical signs in the lung.

The presence or absence of fluid could not always be clearly determined on the basis of physical signs. In a number of instances when the physical signs indicated the probable presence of fluid chest taps would prove to be unfruitful. On the other hand, in other cases when the signs in the chest came through clearly, but flatness was present, chest taps did reveal fluid.

Although the clinical appearance of the patient was helpful in giving a clue as to the probability of the child having pneumonia, it was not always a reliable guide since a number of our cases were amazingly comfortable despite a high temperature, rapid pulse, and even with the involvement of two or more lobes.

Meningismus

Meningeal irritation was noted in twenty-four patients and in these cases a lumbar puncture was performed. Invariably the spinal fluid was obtained under increased pressure and was colorless, clear, and contained the normal number of cells and did not reveal any microorganisms. Meningeal irritation was found to be most frequently associated with involvement of the right upper lobe. It was noted in thirteen cases of right upper lobe pneumonia, in five cases of lower lobe pneumonia, and in one case of right middle lobe pneumonia. It is of interest that a few of these cases continued to show meningeal irritation for a week or more with consistently negative lumbar punctures.

Blood

A leukocytosis was invariably reported in our cases with a preponderance of polymorphonuclear cells and definite shift to the left of the Schilling hemogram when the latter was performed. Although most writers feel that a lower leukocyte count indicates a poor prognosis, we were not particularly impressed by this finding since most of our fatal cases showed leukocytosis with the expected usual shift to the left.

The erythrocyte sedimentation rate was always rapid in the acute stage of the pneumonic process and was not of any diagnostic significance in our series.

Complications

The five most frequent complications in their order of frequency in our study were otitis media, empyema, mening-

empyema came next with an incidence of 64 per cent. Holt¹¹ reported eight per cent developing empyema. Hill¹² noted, among 1187 cases of pneumonia children up to two years, otitis media ran first twenty-eight per cent, empyema four per cent, pyelitis two per cent, and acute nephritis one per cent, in children from two to twelve, otitis media occurred in

TABLE IV—COMPLICATIONS OF LOBAR PNEUMONIA

	1935— 6 mos	1934	1933	1932	1931	1930	Total
1 Otitis media	18	25	16	12	20	6	97
2 Empyema	4	10	6	6	3	7	32
3 Meningismus	10	5	2	2	4	1	24
4 Measles	4	1	2	0	0	7	14
5 Furunculosis and abscesses	6	1	1	1	0	3	12
6 Pleurisy	4	0	3	2	0	2	11
7 Secondary anemia	1	4	0	1	0	2	8
8 Vancella	1	2	0	0	0	2	5
9 Mastoiditis	0	0	1	0	1	2	4
10 Convulsions	1	0	2	0	1	0	4
11 Toxic erythema	0	0	0	4	0	0	4
12 Sinusitis	0	2	1	1	0	0	4
13 Pyelitis	0	0	1	1	0	1	3
14 Meningitis	0	0	0	1	0	2	3
15 Pertussis	0	0	0	0	0	3	3
16 Cervical adenitis	1	2	0	0	0	0	3
17 Malnutrition	0	2	0	0	0	0	2
18 Scarlet fever	1	1	0	0	0	0	2
19 Acute tonsillitis	0	1	0	0	0	1	2
20 Acute nephritis	0	0	0	2	0	0	2
21 Diarrhea	0	0	1	1	0	0	2
22 Dilatation of stomach	0	0	1	0	0	0	1
23 Jaundice	0	0	1	0	0	0	1
24 Urticaria	0	0	0	1	0	0	1
25 Effusion	0	0	0	1	0	0	1
26 Lung abscess	0	0	0	1	0	0	1
27 Conjunctivitis	0	0	0	0	1	0	1
28 Parotitis	0	1	0	0	0	0	1
29 Pharyngitis	0	0	1	0	0	0	1
30 Cystitis	0	0	1	0	0	0	1

TABLE V—THERAPEUTIC PROCEDURES

	1935— 6 mos	1934	1933	1932	1931	1930	Total
1 Distension treatment	5	10	9	2	5	4	35
2 Supportive (Clyses etc.)	5	8	7	7	3	3	32
3 Surgery	2	9	6	6	2	3	29
4 Oxygen	3	7	5	4	5	5	29
5 Sedatives	4	5	6	5	4	2	26
6 Transfusion	4	5	3	5	0	1	18
7 Stimulation	1	3	1	2	6	4	17
8 Counter irritation	1	0	3	0	0	0	4
9 Spinal tap	1	0	0	1	0	1	3
10 Aspiration (Chest Tap)	2	1	0	0	0	0	3
11 Stomach lavage	0	0	1	0	0	0	1
12 Postural drainage	0	0	0	0	1	0	1
13 Antianemic treatment	0	1	0	0	0	0	1
14 Insulin	0	1	0	0	0	0	1

gismus, furunculosis and abscesses, and pleurisy. Although, according to Table IV, measles appeared in fourteen of the pneumonia patients, these occurred only during epidemic periods.

Otitis media occurred in twenty-one per cent of the cases, and empyema in 69 per cent of the cases. Moody also found otitis media to be the most common complication in an even higher percentage, namely thirty-four per cent, and

fifteen per cent of the cases, empyema five per cent and unresolved pneumonia two per cent.

Treatment

The majority of the patients in our series recovered uneventfully without the need of any unusual treatment, the routine order for these cases consisted of liquid diet, forcing of fluids, application of ice cap to the head, sponging for tempera-

tures of 103° F and above, and soap suds enema when necessary

It was noted that distension of the abdomen required most frequent attention, occurring in thirty-five cases, and this as a rule, responded to the use of turpentine stupes, rectal tube, occasional use of pituitrin, and various medicated enemas. Thirty-two of the patients required supportive treatment such as hyperdromoclyses of normal saline of three to five per cent glucose, and infusions of five to ten per cent glucose. Surgery was resorted to in twenty-nine cases either for the relief of purulent fluid in the pleural cavity or the incision and drainage of furuncles and abscesses. Apparently only twenty-nine cases were considered as needing oxygen. Sedatives such as codeine, phenobarbital, sodium amytal, etc were used in twenty-six cases. Transfusions were given in eighteen cases, the amount given being usually based on the rule of ten c.c. per lb of body weight.

Stimulation in the form of drugs like adrenalin, caffeine, sodium benzoate, etc were used in seventeen patients. Other therapeutic procedures as counter irritation, lumbar punctures, chest taps stomach lavage, postural drainage, anti-anemic measures, and insulin were used very little.

Prognosis

The prognosis of lobar pneumonia under the age of two was found to be almost as bad as that of bronchopneumonia. Over the age of two, a good prognosis could be given in the great majority of the patients. The length of hospital stay could not be accurately determined in our series because a number of the patients were kept confined to the hospital because of quarantine regulations during episodes of contagious illnesses, or were compelled to wait until arrangements for their transfer to a convalescent home could be made, or had to be kept on the wards until such time as they could be taken care of at home.

Discussion

Anyone who makes a clinical and statistical survey of lobar pneumonia in children becomes definitely impressed

with the extremely high incidence of the disease in the younger age group. This fact has been noted by every observer who has reported on studies of lobar pneumonia in children, thus Minten, Bailey, and DeBone¹⁸ comment on the high incidence of children under six, with especial frequency in those under two. McNeil discussing acute pneumonia in early childhood found 110 cases in the first year, 146 in the first and second years, seventy between two and three, seventy-six between three and five, and ninety-five between five and twelve years.

Manace in ninety-two cases of lobar pneumonia found twenty-four in the first year, twenty-nine in the second year, and thirty-nine cases over two years.

Morgan reporting 398 cases of lobar pneumonia stated that sixteen per cent of his patients were under one year of age, nineteen per cent were between one and two, and forty-seven per cent were under three years of age.

Lamont also declared that pneumonia in children was most frequent in the first year, the second year was next in frequency, while between six and ten the incidence diminished.

The predominance of pneumonia in boys may be accounted for by their greater activity and their love of play in all kinds of weather, their scornful neglect of the "common cold," and by the little care usually given by the male child to his personal hygiene.

It has long been established that the greatest morbidity in lobar pneumonia in this region is recorded in the late winter months. It is of interest, however, to note that the peak of pneumonia for each year may vary greatly from that of other years and is dependent upon the climatic conditions, the diminution of the resistance of the individual by other infections, and the virulence of the organism responsible for the pneumonia.

In the present study the x-ray proved to be merely of confirmatory value for it rarely revealed consolidation which had not been clinically suspected. The fact that in twenty-one per cent of our cases the x-ray was negative at the time when lobar pneumonia was clinically diagnosed on the basis of physical signs is worthwhile considering especially in view of

the reports in the literature which lead one to believe that the x-ray is positive in most cases of lobar pneumonia. The careful roentgenologist admits that clinical data is essential to the absolute diagnosis of pneumonia, the x-ray findings being purely confirmatory.

Our x-ray findings are not in agreement with those of Davis and his associates¹⁴ who state that a radiograph twenty-four-forty-eight hours after the onset of pneumonia, should show unmistakable signs if pneumonia is present. Wesler and Jaches also declare that in the earliest states of lobar pneumonia encountered clinically, even before clinical signs are present, well-marked shadows are already to be seen.

Bromer in discussing the fifteen negative x-rays obtained in his series of 100 cases felt that the explanation for the negative x-rays might be among the following:

- 1 Clinical diagnosis may have been in error
- 2 Some of the cases may have had the consolidation concealed by the heart shadow
- 3 Pneumonic lesions may be so small or located in the center of the lung field as not to cast a shadow through the air filled lung about them

Attention should also be called to the fact that in the stage of engorgement the x-ray will only show increased hilus markings and a hypervascularization. It is when the exudate is poured into the alveoli that a shadow is cast on the film and, as Charles Hendee Smith pointed out, some exudates may not contain enough fibrin to stop the penetration of the x-rays.

Moody after noting, that in eighteen of the lobar pneumonia cases autopsied, only in five cases did the x-ray, clinical, and postmortem findings agree, came to the same conclusion previously reached by Griffith in 1928 (the latter had reported twenty-six cases of pneumonia which had been classified clinically, diagnosed by x-ray, and examined at postmortem and found that the three diagnoses agreed in only six cases) namely, that in the early stage the clinical picture and course gives the most accurate estimate of the condition.

We have been impressed by the fact

that a considerable number of our cases (114) did not reveal any physical signs in the lungs on admission to the hospital, but that these physical signs appeared twenty-four-forty-eight hours later, in some cases not until the seventh-eighth day of hospital stay. Mason has already called attention to the fact that the physical signs will not be elicited in the lungs until the pneumonic process is present at the hilum. From the fact that so many of these cases were considered to have an upper respiratory infection on admission and then later showed unmistakable signs of pneumonia, it would behoove the general practitioner, or the pediatricist to guard his prognosis in upper respiratory infections and be on the lookout for a pneumonic process if the patient does not improve as expected. The error of considering a patient to have lobar pneumonia on admission was committed much less frequently—in fact in only twelve cases did the subsequent course reveal that an incorrect diagnosis of lobar pneumonia had originally been made. Meningismus was most frequently noted in involvement of the right upper lobe which is in agreement with the impression of Koplik and Morgan, who stated that "cerebral pneumonia most frequently affected the right upper lobe."

Only a very small number of our patients showed any delay in resolution. Some writers question whether such a condition as delayed resolution exists, maintaining that any pneumonic condition lasting longer than fourteen days is not a lobar pneumonia but a bronchopneumonia.

Of the complications, the most serious and the most likely to influence the course of the illness is that of empyema. Although it ranks second in frequency it gives more trouble than the more common complication of otitis media. In the study of the effect of this complication in childhood, McNeil found that in the first year, empyema brought about a fatal issue in 77.7 per cent of the infants developing this complication, 42.8 per cent in those between one and two years as contrasted to 11.1 per cent in children between two and three years, and four per cent in the age group between five and twelve.

A great deal has been written about the treatment of lobar pneumonia in children with each enthusiast advocating his particular method of therapy as the one productive of the best results. However, calm, unbiased observers, after carefully analyzing their own cases and those of others reported in the literature, have invariably come to the conclusion that in the majority of cases the child with lobar pneumonia is best left alone with careful nursing.

The consensus of opinion in the literature is that fresh air (such as is obtainable in any well-ventilated room), a liquid diet, consisting mostly of fruit juices, water, malted milk, modified milk, the forcing of fluids, the opening of the bowels by means of a good cathartic such as castor oil, mineral oil, and milk of magnesia, or a soap suds or bicarbonate of soda enema, or colonic irrigation, the sponging with tepid water when hyperpyrexia is present, the use of an ice cap to the head, counter irritation such as application of a light poultice or mustard plaster when pleuritic pain is present is all that is necessary in most cases of lobar pneumonia.

Grulee and Mulherin particularly emphasize that the patient be left alone and insist that all drug treatment be dispensed with as far as possible. Kochmann¹⁵ also states that for the majority of children with pneumonia, proper nursing care and hygiene give the best results.

Sedatives are necessary at times to secure the proper rest which is essential in pneumonia. Those commonly used are codeine, phenobarbital, bromides, and morphine. In older children where an inadequate food intake is noted, either because of inability of patient to take food, or refusal to take it, this has to be supplemented by aid of clyses of normal saline or three to five per cent glucose or by infusion of five to ten per cent glucose (Schroeder advocates six to ten per cent glucose giving ten c c per lb of body weight up to a total of 300 c c).

Where the cough is excessive, wearing, and disturbing to the child's rest, it should be controlled with codeine or with atropine. Where cardiac stimulation is found to be necessary, drugs as alpha-lobelin, camphor in oil, caffeine, sodium

benzoate, adrenalin, and digitalis are helpful. The use of digitalis in children has been generally considered to be of no value, even its advocates admitting its use limited to cases where auricular fibrillation has set in or where evidence of cardiac decompensation is present and when it is used, should be used to full digitalization.

Oxygen is considered to be a very definite adjuvant to the treatment of pneumonia and should be used whenever cyanosis, excessive restlessness, hyperpnea or severe toxemia is present. The old method of giving oxygen by nasal catheters or by means of an open funnel has never convinced us that it has done any real good, in fact, we have felt that these methods of employing oxygen were really the cause of the restlessness of the child. However, we agree with most observers that with the use of the child oxygen tent, oxygen is a very helpful therapeutic aid.

Transfusions as a therapeutic measure has been a moot point among internists and pediatricists. There are those who have been afraid to transfuse their patients for fear of overburdening the circulation and embarrassing an already overworked right heart, but Schroeder¹⁶ reported thirty per cent of his 225 patients were transfused with invariably beneficial effects and no untoward effect, using ten c c of blood per lb of body weight and no more than 250 c c at a time. In our series, only eighteen patients received transfusions but these were considerably benefited by its use. In the acute stage of pneumonia, we feel a transfusion should be given only for the very toxic or severely anemic patient. After ten to fourteen days of continued pneumonia, a transfusion will help as a stimulus to overcome what appears to be a protracted or unresolved pneumonia and will also hasten convalescence.

Distension is a complication of pneumonia which the physician does not like to see since it is a definite handicap to the patient. De Sanctis¹⁷ feels that raw cow's milk fed in the early stages of pneumonia leads to distension and advocates the use of malted milk rather than milk. Others contend that toxemia is a cause of the distension. When present the usual method of turpentine stupes to the abdo-

men, rectal tubes, use of pituitrin or medicated enemas will combat this condition Kerr advocates the use of stomach lavage since he feels the distension is due in many cases to gastric dilatation alone Other observers feel that the daily feeding of ten to twenty-five grams of salt will help prevent distension, or aid in its treatment.

Attention has lately been focused on the use of antipneumococcic serum in pneumonia in childhood The concensus of opinion, however, is that the good prognosis of lobar pneumonia in children over two makes the use of serum in this age group unnecessary Nemir in her study of the use of antipneumococcic serum in the pneumonias of childhood found that the antipneumococcic sera for Type I and XIV were quite effective and since a large percentage of the pneumonia cases fall in these two groups they can, therefore, be given the benefit of the sera Her statistics show a lowering of the mortality rate in the combined treated cases of lobar pneumonia and bronchopneumonia, nevertheless, her figures in a relatively small series of cases do not show much difference between the mortality in the serum treated and the untreated cases of lobar pneumonia, but her observation that the complications in the treated group were lessened and the duration of the illness shortened are worthy of note

The use of artificial pneumothorax as a therapeutic measure in children is receiving considerable attention at the present time However, it is not as enthusiastically advocated in the treatment of lobar pneumonia in children as it seems to be in adults, even by those who are most enthusiastic in its employment in the treatment of lobar pneumonia

The problem which still remains open, and should enlist the investigation of our keenest clinicians and scientists, is the relatively high mortality of lobar pneumonia in infancy More effective therapeutic measures, than are at the present time available, are to be desired in this age group, that is, in the first and second year of life

Summary

1 A five and one-half year clinical survey of 459 cases of lobar pneumonia in

children admitted to Lincoln Hospital, a general municipal hospital, is presented

2 Lobar pneumonia has a very high incidence in children in the early years of life and appeared to be more prevalent among boys than girls

3 In the early stages of lobar pneumonia the diagnosis could not be made with certainty in about twenty-five per cent of the cases On the other hand, the error of considering a case as lobar pneumonia was very infrequently committed

4 The x-ray was of value as a confirmatory agent in the establishment of the diagnosis of pneumonia, but rarely did it reveal pathology that had not already been considered clinically, and in twenty-one per cent of the cases in our series the initial x-ray was negative

5 Empyema, although second in frequency as a complication of lobar pneumonia, is the most serious and the most likely to influence the course of the illness

6 The prognosis of lobar pneumonia in children under two is serious, in fact, almost as bad as bronchopneumonia, but it is good in children over the age of two

7 The most effective treatment of lobar pneumonia consists in the main of leaving the patient alone with good nursing care Efforts should, however, be made by all investigators to devise more effective therapeutic measures for treating lobar pneumonia in the age group under two where the mortality is highest

250 W 21 St
107 E 85 St

References

1 Griffith, J P C *JAMA* 91 1331, 1928
2 McNeil, C *Brit M J* 2 582 1927
3 Gruetz, C G, and Mulhern P *J Ped*, 3 827, 1933
4 Morgan *Abt Pediatrics* Vol III p 955
5 Manace, G *Canad M A J* 20 609
6 Moody, E E *Cal & West Med* 34 340, 1931
7 Nemir, R L *J Ped*, 3 827, 1933
8 Albert, J J *Philippine Island M A* 14 29, 1935
9 Smith, C H Personal communication.
10 Bromer, R S *Atlantic M J* 30 409, 1927
11 Holt and Howland *Diseases of Infancy & Childhood*, p. 389
12 Hill, L W *Boston M & S J* 196 107 1927
13 Menten, M L, Bailey S F De Bone F M *J Infect Dis*, Sept-Oct, 1932
14 Davis, D T, Hodgson, H G Whitby L E H *Radiology of Pneumonia* *Lancet* 1 919 1935
15 Kochmann, R *Arch F Kinderh*, March 1932
16 Schroeder, L C *M Clin N A* 18 811, 1934
17 De Sanctis A G Personal communication

A great deal has been written about the treatment of lobar pneumonia in children with each enthusiast advocating his particular method of therapy as the one productive of the best results. However, calm, unbiased observers, after carefully analyzing their own cases and those of others reported in the literature, have invariably come to the conclusion that in the majority of cases the child with lobar pneumonia is best left alone with careful nursing.

The consensus of opinion in the literature is that fresh air (such as is obtainable in any well-ventilated room), a liquid diet, consisting mostly of fruit juices, water, malted milk, modified milk, the forcing of fluids, the opening of the bowels by means of a good cathartic such as castor oil, mineral oil, and milk of magnesia, or a soap suds or bicarbonate of soda enema, or colonic irrigation, the sponging with tepid water when hyperpyrexia is present, the use of an ice cap to the head, counter irritation such as application of a light poultice or mustard plaster when pleuritic pain is present is all that is necessary in most cases of lobar pneumonia.

Grulee and Mulherin particularly emphasize that the patient be left alone and insist that all drug treatment be dispensed with as far as possible. Kochmann¹⁵ also states that for the majority of children with pneumonia, proper nursing care and hygiene give the best results.

Sedatives are necessary at times to secure the proper rest which is essential in pneumonia. Those commonly used are codeine, phenobarbital, bromides, and morphine. In older children where an inadequate food intake is noted, either because of inability of patient to take food, or refusal to take it, this has to be supplemented by aid of clyses of normal saline or three to five per cent glucose or by infusion of five to ten per cent glucose (Schroeder advocates six to ten per cent glucose giving ten c c per lb of body weight up to a total of 300 c c).

Where the cough is excessive, wearing, and disturbing to the child's rest, it should be controlled with codeine or with atropine. Where cardiac stimulation is found to be necessary, drugs as alpha-lobelin, camphor in oil, caffeine, sodium

benzoate, adrenalin, and digitalis are helpful. The use of digitalis in children has been generally considered to be of no value, even its advocates admitting its use limited to cases where auricular fibrillation has set in or where evidence of cardiac decompensation is present and when it is used, should be used to full digitalization.

Oxygen is considered to be a very definite adjuvant to the treatment of pneumonia and should be used whenever cyanosis, excessive restlessness, hyperpnea or severe toxemia is present. The old method of giving oxygen by nasal catheters or by means of an open funnel has never convinced us that it has done any real good, in fact, we have felt that these methods of employing oxygen were really the cause of the restlessness of the child. However, we agree with most observers that with the use of the child oxygen tent, oxygen is a very helpful therapeutic aid.

Transfusions as a therapeutic measure has been a moot point among internists and pediatricists. There are those who have been afraid to transfuse their patients for fear of overburdening the circulation and embarrassing an already overworked right heart, but Schroeder¹⁶ reported thirty per cent of his 225 patients were transfused with invariably beneficial effects and no untoward effect, using ten c c of blood per lb of body weight and no more than 250 c c at a time. In our series, only eighteen patients received transfusions but these were considerably benefited by its use. In the acute stage of pneumonia, we feel a transfusion should be given only for the very toxic or severely anemic patient. After ten to fourteen days of continued pneumonia, a transfusion will help as a stimulus to overcome what appears to be a protracted or unresolved pneumonia and will also hasten convalescence.

Distension is a complication of pneumonia which the physician does not like to see since it is a definite handicap to the patient. De Sanctis¹⁷ feels that raw cow's milk fed in the early stages of pneumonia leads to distension and advocates the use of malted milk rather than milk. Others contend that toxemia is a cause of the distension. When present the usual method of turpentine stupes to the abdo-

times, the term "drug eruption" seems to be most suitable as a general expression for either one

Past Theories on the Pathogenesis of Drug Eruptions

Various theories came into vogue to explain the reason for development of drug eruptions. For instance, the "saturation of the system" due to faulty elimination particularly by the kidneys, the "elective affinity" of drugs for special anatomical elements, the "irritation" of the skin due to the circulating drug, and several others like "modification of the sweat," and the conception that drugs arriving in the blood underwent chemical transformation, the products of which lead in certain individuals to cutaneous lesions (Behrend's "Dynamic Action"). Because these theories had only a limited application, another, the nerve origin of drug eruptions seemed to appeal more to Morrow.² A more modern version is that such skin manifestations are produced through the action of drugs on the endocrines which influence the central and peripheral nervous system

Idiosyncrasy to Drugs

Much that is known today of the clinical characteristics and histological structure of drug eruptions dates from the early studies of this aspect of the question, by the older dermatologists. The theories advanced on the pathogenesis of drug eruptions previously mentioned, were found lacking in their general application and failed to gain general approval. Most observers held to the idea of idiosyncrasy even though its nature remained unrevealed, and considered the display of intolerance of certain individuals to substances generally harmless to others as due to an inherent or inborn peculiarity of the individual.

This was the state until thirty-five years ago when Josef Jadassohn began to publish his studies of idiosyncrasy as noted in drug eruptions.³⁻⁷ Early in his investigations, he indicated that there existed a close analogy between the *modus operandi* of these dermatoses and eczematous dermatitis. In one case for example, Jadassohn noted that areas of the skin that had presented a dermatitis after

the external use of calomel powder and a mercury plaster remained unaffected, in contrast to the dermatitis that developed in other areas of the skin, when mercury tannate was given by mouth. The idiosyncrasy that had developed from the use of mercury was demonstrated to be specific for that drug, irrespective of the preparation used or the method of administration. Besides this, Jadassohn showed that those areas of the skin previously hypersensitive, had developed a "local immunity." Observations on dermatitis from other drugs (iodoform, salol, etc.) definitely convinced him of the close relationship between drug eruptions, especially those of the eczematous type, with the dermatitis produced by other drugs and chemicals.

Jadassohn referred to hypersensitivity that could be specific and nonspecific (polyvalent), and not only indicated but also utilized therapeutically the process of desensitization in dermatoses from drugs. This placed the understanding of idiosyncrasy to drugs on an immunobiologic basis. It was in the eczematous drug eruptions that he employed his test for the functional behavior of the skin—"funktionellen prufung"—now called the "patch test."

Sensitizing Properties of Drugs

As Klauder⁸ indicates, it is doubtful for all drug eruptions to be regarded as manifestations of the same process. The type of pigmentation that may follow the use of the metallic drugs like arsenic, bismuth, gold and silver, etc., is apt to appear in all with prolonged and sufficient dosage because this is primarily due to the deposit of the circulating metal (or its compounds) in the skin. The irritating effects of these cutaneous deposits may lead to the formation of keratoses. The cutaneous lesions from bromides and iodides are based on the displacement of the chlorine ions in the tissues by these halogens, yet individual susceptibility seems to be a factor of importance in those who develop not only the granulomatous and tuberculous bromo or iododermas, but also the acneiform and other eruptions due to these drugs. Milian dismisses all other causes of his "Ninth Day Erythema" from certain drugs, and

ROLE OF ALLERGY IN DRUG ERUPTIONS

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The purpose of this paper is to discuss the role of allergy in the pathogenesis of drug eruptions. Some of the older theories advanced as an explanation of these skin manifestations will be mentioned briefly in passing.

Historical

The interest in drug eruptions dates back to the eighteenth century and probably originated as a result of the division of opinion that held sway during the preceding three centuries regarding the value of mercury as a cure for syphilis. Some of the toxic symptoms induced by this drug were known to early European medicine from the observations of the physicians of old India, Persia, and Arabia. This knowledge was strangely retarded for many years after syphilis made itself manifest. For instance, the "Antimercurialists" who grew to influential proportion in the profession, and also those who theorized that syphilis was only a mild cutaneous illness, erroneously portrayed eruptions and other manifestations that were due to syphilis as the so-called symptoms of "Mercurial disease." The belief in this phantom abetted by the famous John Hunter was ultimately abandoned, but not until a more rational knowledge of syphilis and its treatment developed, *pari passu* with a better understanding of drug eruptions in general and mercury in particular.

Antoine Charles Lorry, the founder of French dermatology, drew attention to eruptions from various aromatic medicines, sudorifics, essential oils, etc (Tractatus de Morbis Cutaneis—Paris, 1777). Eruptions from other drugs began to receive notice. Montegre (1814) called attention to the appearance of urticaria following the ingestion of copaiba. Rayer (1835) recorded

numerous observations relating more particularly to the eruptive disorders caused by external irritants, which were classed by him as "artificial eruptions." Ricord (1842) described various skin lesions following the use of potassium iodide. Devergie (1857) first reported the skin disturbances caused by arsenic. Bazin (1862) devoted an entire monograph to the systematic studies of the cutaneous disorders provoked by the action of various drugs. He was followed by numerous observers, more particularly Berenguier (1874) and Deschamps (1878) in France, Kobner (1877), Lewin and Behrend (1879) in Germany, Farquharson and Hutchinson (1879) in England, Piffard (1881), Van Harlingen (1880), Morrow (1887), and others in this country, that added materially to our knowledge of the characteristics of such dermatoses.

Kobner¹ in 1877, in his clinical investigations of medicinal eruptions contended that those eruptions produced through internal use of a drug had a different pathogenesis than those produced through external application. Dermatologists of the same and next generation like Albert Neisser, Prince A. Morrow, Josef Jadasohn, Jean Darier, and others, believed there should be no such distinction, because it was not uncommonly noted that eruptions produced from contact with irritant drugs and those produced from the internal use of drugs were very frequently indistinguishable or merged with one another. Kobner's conception has been abandoned but the term "dermatitis venenata" is still applied to those dermatoses produced from external use of a remedy, and "dermatitis medicamentosa" to those eruptions produced from internal use of such preparations. While these divisions still have their usefulness at

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he suggested, "should be limited to those processes wherein the introduction of foreign substances into the organism does not produce any clinical reaction whatever, where, in short, there is a total lack of sensitivity," the term "allergie" for the "altered condition which an organism achieves after acquaintance (Bekanntschaft) with any organic, living or inanimate poison," in other words, where specific hypersensitivity or hyposensitivity and immunity develops. Those vaccinated against smallpox, those tuberculous, and those who had received a serum injection, etc., said v Pirquet, were "allergic" to the respective foreign agent. He termed a foreign substance that is capable, through one or more exposures, of inducing in the organism this alteration of reaction as an "allergen." *Allergens include in addition to the antigens, numerous protein substances which do not produce antibodies but do cause hypersensitivity,* and v. Pirquet enumerated the following that may act as allergens—various infectious agents to which immunity may be established, poisons of mosquitoes and bee stings (where hyper- and hypo-sensitivity may exist), pollen that produces hay fever, urticariogenic substances in strawberries and crabs, and possibly, also, a number of other organic substances to which idiosyncrasy may appear.¹⁰

Allergy apparently covers a wide range of varied manifestations appearing in both animal and man, that are dependent on a specific alteration of capacity to react (hypersensitivity and hyposensitivity), induced in the organism by adequate contact with a definite substance or agent, even a harmless one. Sensitization is indicated in the presence of the following phenomena

A certain period of incubation (exposure to the agent) during which sensitization develops, this period (reaction time) is shortened with subsequent use of the specific agent, the presence of hypersensitivity or hyposensitivity (desensitization), no relationship of the symptoms of reaction to the nature of the agent, the capability of the offending agent even in minute amounts of reproducing the reaction, and its specificity for that particular agent, or those related (grouped), and occasionally to unrelated substances

The criteria for allergic hypersensitivity just mentioned, according to Doerr,¹¹ Bloch,¹² and others, also include the presence of responsible antibodies. According to v Pirquet's definition, the absence of responsible antibodies does not necessarily exclude the phenomena of specific sensitization from being allergic. Specific sensitization in animals and man is considered a cellular response, and the symptoms are attributed to a union of the circulating allergen with the tissue that had become sensitized.

There is some difference of opinion among immunologists as to the classification of the specific hypersensitivities, i.e., whether anaphylaxis rather than allergy is more suitable as a basic term for such manifestations. An internationally accepted definition of terms and also classifications of this subject, if it were possible, would be welcomed by many. It would be of help also in determining the value of new terms, like the more recent pathergy, metallergy, parallergy, etc.

v Pirquet's conception of allergy does not always postulate the necessary presence of responsible antibodies, so when they are not demonstrable in instances of specific sensitization, they need not be theoretically designated as "fixed" in the tissues, in order to account for their absence. For this reason, and others stated under the various captions that follow, the various specifically acquired hypersensitivities are classed under the general term "allergy."

Various Forms of Allergy

Anaphylaxis Protein anaphylaxis is a form of allergy (specific altered reaction) deliberately produced in laboratory animals, and characterized by a definite train of symptoms varying with the species employed. The presence of certain specific antibodies (precipitins) is regularly demonstrable. This type is also believed by some to be encountered occasionally in man in those sensitized to foreign serum or other proteins.

Atopy One form of human allergy is recognized by Cooke, Coca, and others, in those who have been shown to inherit a disposition to a certain type of sensitization. The individuals so disposed have been designated by Coca as "atopic." They have not been proven to show any greater tendency to develop drug eruptions than those not so constituted, but are subject

conceives it to be, mostly on clinical evidence and epidemicity, a "biotropic" effect, i.e., an activation of latent micro-organisms by such preparations. It is quite evident therefore that several factors may be at play in some types of drug eruptions.

There are, however, a large number of drug eruptions that are primarily either erythematous, urticarial or eczematous in nature, with minor differences when located on the orificial mucous membranes, or the appendages of the skin. Idiosyncrasy has been invoked as an explanation for the eruptions in this category, as well as the other less common types (lichen planus, herpes simplex and zoster, bromide and iodide nodular, and granulomatous lesions, etc.). The development of the idiosyncrasy in such instances is ascribed to a sensitizing and not to a poisonous* action of the drug. Practically any drug is capable of inducing sensitization. It has been found that some drugs are more apt to induce sensitization than others, and that it is possible for different lots of the same drug to vary in the frequency with which they may induce sensitization.⁹

General and specific Hypersensitivity

Progress in the understanding of idiosyncrasy as used in connection with drug eruptions and eczematous dermatitis, developed when it was indicated that some form of hypersensitivity existed in individuals so affected. Further experimental and clinical studies (Jadassohn, Bloch, Jaeger, Sulzberger, and others) revealed that there were certain differences in the types of hypersensitivity encountered. On the one hand there was the so-called normal individual who developed no reaction of the skin with various irritants (acids, alkalis, caustics, etc.), unless these irritants reached a certain concentration. These normal individuals would then manifest certain effects on the skin that were common to all, usually a dermatitis, with perhaps some slight variation in degree. Another group existed, the eczematous or potentially eczematous, in which a lower concentration of these same irritants could produce the same or even

a more severe type of dermatitis than that observed in the normal persons. These were hypersensitive in comparison with those previously mentioned. A subdivision of this general hypersensitive group would be those who reacted specifically to one irritant and not to others. General hypersensitivity may be encountered in those with a skin of a thin texture, or in those whose skin is exceedingly dry, etc. Specific hypersensitivity of the skin may be encountered in those susceptible to any particular irritant, (acids, alkalis, caustics, etc.), or in those susceptible to any physical agent like light, heat, cold, mechanical irritation, and may be due to some inherent biologic abnormality of the individual (difference in H⁺ ion concentration, presence of photosensitizing agents, or endocrine dysfunction, etc. respectively). This hypersensitivity even when specific, may or may not be of immunologic significance and in many instances is certainly nonimmunologic.

Such nonimmunologic hypersensitivity is to be contrasted with another type in which the skin of the individual has been known to react in a normal way to an agent (usually of a nonirritating nature) which has been used externally or internally, and then, due to a preceding exposure either proven or hypothetical, the skin acquires a new attribute in that he can no longer tolerate this particular substance thereafter, without the development of some cutaneous reaction. It has been shown to be possible to bring about this increase in sensitivity of the skin in this type of specific hypersensitivity through definite and repeated exposures of the skin to a specific agent. This production of hypersensitivity is therefore patterned after the specific immunological processes noted in experimental anaphylaxis and in certain other affections in which a specific acquired hypersensitivity is demonstrated.

Von Pirquet's Definition of Allergy

Von Pirquet's definition of allergy was based on the observations that those processes in which preparatory treatment induced immunity to various agents, were at times, also most intimately connected ("aufs Innigste mit einander verbunden sein") with an apparently contradictory phenomenon, the presence of hypersensitivity. "The designation 'immunity,'"

* The word "poisonous" is used throughout this paper in a restricted toxicological sense.

Sensitization to Drugs and Passive Transfer of Hypersensitivity

Swift¹⁹ reported sensitization with general symptoms in guinea pigs treated with arsphenamine guinea pig serum Frei²⁰ and Sulzberger²¹ have succeeded in producing skin lesions in man and guinea pigs through sensitization with neoarsphenamine. Active sensitization was produced in guinea pigs with phenylhydrazine by W. Jadassohn²². Landsteiner and Jacobs²³ produced cutaneous sensitization in guinea pigs with various chemical organic compounds (chloro dinitrobenzene and trinitrobenzene) but, other compounds similar in structure gave negative results.

The specific hypersensitivity of the epidermis in the eczematous type of drug eruption in man may be demonstrated frequently with the patch tests. In the other types, the scratch and intracutaneous tests are not reliable. Specific antibodies are not as a rule demonstrable. Passive transfer reagins (Prausnitz-Kustner antibodies) are reported only in isolated and doubtful instances.²⁴

Artificial sensitization in man to drugs applied externally has been reported by several investigators. Silverberg with mesotan (methoxymethylester of salicylic acid), Schwartzschild with the orthoform series, Lehner and Rajka with mustard oil and cignolin benzol, Biberstein with sodium nirvanol, and Nathan and Munk with a brand of arsphenamine. Biberstein succeeded in deliberately sensitizing the skin of an individual to mercury. These reports are cited in the article by Silverberg.²⁵ Bernstein²⁶ also succeeded in sensitizing man to formalin. Bloch¹² with primrose, and Müller and Mayer²⁷ with paraphenylenediamine (ursol), were successful in inducing sensitization in all individuals in which this was tried. Strauss²⁸ succeeded in causing sensitization of infants to poison ivy. Sulzberger²⁹ produced this hypersensitivity experimentally in an adult. The "nirvanol" (phenyl ethyl hydantoin) sickness³⁰ and its accompanying skin eruption, that is purposely induced for the treatment of chorea, is an example of an artificially produced drug eruption in humans, from internal use. Clinically, sensitization to drugs may de-

velop either from external or internal use and hypersensitivity may subsequently manifest itself with either method of administration.⁶ Jadassohn's demonstration was the first to prove the specific hypersensitivity to inorganic drugs like mercury, so that some inorganic preparations may also act as allergins.

Natural desensitization to a drug is not infrequently observed, especially after a severe outbreak. Artificial desensitization by employing the offending drug externally or internally, has been effective in some instances. Kesten and Laszlo³¹ reported a dermatitis due to external use of potassium mercuric iodide. Successful desensitization followed from the local applications of this preparation in gradually ascending concentrations. Desensitization in this way, however, is not always of a lasting nature. J. Jadassohn¹ showed that it was possible to accustom patients hypersensitive to the external use of mercury ointment, through gradually ascending doses of mercury by mouth or by injection. Widal and Pasteur Vallery-Radot³² protected a woman subject to a recurrent "fixed" erythema from antipyrine, from further attacks, by having the patient ingest at intervals of a few days, a small ascending dose of the drug by mouth one hour before the offending dose was administered. This was confirmed by Labbé and Haguenau³³ in an instance of a generalized antipyrine rash. These authors noted a drop in the leukopenic index soon after the offending dose. The other symptoms of a colloidoclasia (drop in blood pressure, disturbance in coagulation) were present in Widal's case. Urbach³⁴ caused desensitization to sodium cacodylate using the percutaneous method. Specific desensitization in Rhus dermatitis, against iodides, chrysarobin, and other drugs has proven useful. Specific and nonspecific desensitization and prevention of sensitization to the arsphenamines is based on the conception of an allergic hypersensitivity of drug reactions. Prevention of sensitization in the guinea pig to neoarsphenamine is indicated by the experiments of Sulzberger.²¹

Idiosyncrasy, Allergy, and Poisonous Action

The term idiosyncrasy is restricted by

to certain forms of asthma, hay fever, atopic dermatitis (infantile eczema, neurodermatitis), etc and occasionally react (asthma, hay fever) to certain foods, serums, and drugs in this way. Antibodies are demonstrable by means of the passive transfer experiments (Prausnitz-Küstner antibodies, also called "atopic reagins" or "atopens"). The nature of these antibodies and their causal connection with atopic affections need further elaboration.

Drug allergy The other form of allergy that may appear in man is acquired after an adequate exposure to a specific agent, usually without a familial history of atopy and without its antibodies. It is considered the type encountered in some of the foods, serum, bacteria, fungi, and drug hypersensitivities, and perhaps also in some of the hypersensitivities to physical agents. Cutaneous reactions are a common occurrence in this type, and the mechanism of sensitization is probably analagous to other types of allergy, although antibodies are not regularly demonstrable by present methods (Antibodies are sometimes demonstrated in some of the food sensitizations and serum sickness).

Experimental and Clinical Evidence of Allergic Nature of Drug Hypersensitivity

A drug may be well-tolerated for weeks, months or even years when for some reason the individual becomes receptive to the sensitizing action of the drug. From observations on those who have been exposed to the drug probably for the first time, the time required for sensitization of the skin to become manifest (appearance of skin eruption), is usually about one to two weeks. This period of incubation has striking similarities with that of other sensitizations, for instance in serum disease, nirvanol sickness, and in experimental drug and plant sensitization in animals. After skin sensitization is established, the subsequent use of the drug causes the skin eruption to reappear much earlier, i.e., within forty-eight hours. Skin eruption may be expected to recur thereafter with the use of the particular drug (specific reaction), or sometimes with those chemically related (group reactions), or even unrelated substances (heterophilic reactions?). The cutaneous manifestations that may appear usually differ from those produced by the phar-

macological action of the drug, and they can generally be reproduced by doses below the usually effective pharmacological dose. Similarly, the skin manifestations usually differ from those produced by the poisonous action of the drug. Relief generally follows by avoiding the offending drug. Desensitization may develop or at times be produced artificially. The reaction is not entirely dependent on the nature of the agent. The reaction is considered a cellular one in which the circulating drug (allergen) reproduces the drug eruption by a union with the skin or other tissue which has become specifically sensitized.¹³⁻¹⁶ There are as yet no known or regularly demonstrable antibodies.

Schuck, Doerr, Landsteiner, Zinsser, and other eminent authorities believe that although an antigen-antibody mechanism is far from proven in drug hypersensitivity, no other explanation is possible. The experiments with chemically-treated proteins by Obermayer and Pick, Landsteiner, and also Wells, supported this assumption. Landsteiner and van der Scheer¹⁷ have shown that anaphylactic shock may be induced in animals sensitized with azoproteins by injecting them with azodyes containing the same azo components as the sensitizing antigen. Other experiments of this order show it is possible at times to demonstrate specific antibodies to the chemical component (haptene) of the whole antigen used in producing the sensitization in the experimental animal. Simple chemical compounds under certain conditions act sometimes similarly to antigenic proteins. The relationship between specificity and the chemical constitution of chemical drugs offers a promising field for the solution of the phenomenon of hypersensitivity.¹⁸

While an antigen-antibody concept in drug eruptions is probably correct, it does not detract from v Pirquet's precise definition of allergy, for the latter adequately covers the class of specific hypersensitivities where specific antibodies cannot be demonstrated. Not only that, but this definition also limits the placing of other manifestations at the door of allergy, which are not based on v Pirquet's delineation of a specific altered reaction.

of drugs, much space is naturally devoted to their pharmacological action and also to their toxic (poisonous) effects. In recent years, attention is being paid to the sensitizing properties of these medicinal agents, for aside from deleterious effects resulting from an overdose of a poisonous drug, much that is considered toxic may be due to an underlying allergic hypersensitivity.

It is due mainly to the work of dermatologists like J. Jadassohn, Bloch, and their school, and various American and European immunologists, that the term *idiosyncrasy* formerly used to cloak our ignorance regarding the pathogenesis of drug eruptions, now receives a rational explanation. This is not only of theoretical importance but also of practical usefulness. It is perhaps confusing that the terminology and definitions employed to denote these phenomena are not altogether uniform. Further studies, it is hoped, will correct this. Sulzberger, through his many publications, is to be given credit for having emphasized the importance of this subject to American dermatologists.

Summary and Conclusions

The term "drug eruption" may be accepted as a general term for those eruptions due to external use (*dermatitis venenata*) as well as those from internal administration (*dermatitis medicamentosa*), of a medicinal substance.

J. Jadassohn's studies showed the relationship between drug eruptions and *eczematous dermatitis*, and revealed that *idiosyncrasy* in both of these skin affections is frequently based on an immunological type of a specific hypersensitivity to the offending agent.

The term "allergy" expresses according to v. Pirquet, the state of altered capacity to react (hypersensitivity and hyposensitivity) which occurs in the immunized organism, from contact with an allergen, i.e., an organic living or inanimate poison (or even a harmless substance).

The site of reaction of hypersensitivity is believed to be due to the union of the circulating allergen with the particular tissue sensitized.

The absence of responsible antibodies does not necessarily exclude the phe-

nomena of specific sensitization from being allergic.

Drugs in addition to their pharmacological and possible toxic action, also possess potential sensitizing properties.

A drug may act as an allergen, for it may induce sensitization. Sensitization of the skin develops during a definite incubation period. After skin sensitization is manifest, the reaction time is shorter with subsequent use of the drug. Desensitization occurs sometimes naturally and on occasions may be induced artificially.

A drug eruption is generally not in the nature of the pharmacologic action of the medicinal substance. The dose necessary to produce such symptoms is often below that required for the pharmacological effect of the drug. The eruption generally reappears with the use of the particular drug (specific reaction) or those closely related (group reaction), and sometimes unrelated substances. Relief generally follows the withdrawal of the responsible agent.

These manifestations are closely patterned after those appearing from a specific hypersensitivity to other substances (certain foods, serum, bacteria, fungi, and possibly physical agents), all of which are capable of inducing an allergic type of hypersensitivity.

This concept applies to a large group of drug eruptions that are primarily *erythematous*, *urticarial* or *eczematous* in nature, and may be the underlying basis also in those of different morphological appearance.

Drug allergy is considered a type of specific hypersensitivity encountered in man, that is often demonstrated to be acquired. Responsible antibodies are difficult to prove.

The inherited tendency to sensitization seen in other affections—certain forms of asthma, hay fever, atopic dermatitis, etc.—is considered the atopic type of allergy. Antibodies (Prausnitz-Kustner) are generally demonstrable.

Anaphylaxis is the classical form of allergic hypersensitivity produced in laboratory animals in which demonstrable antibodies are regularly present.

Of the hypotheses submitted as an explanation for the *idiosyncrasy* to drugs, it may be stated that the present evidence, while not complete, sustains the concept

some to those instances in which the hypersensitivity to drugs (cutaneous reaction) developed with the very first dose of the drug taken. Such instances of specific hypersensitivity are now generally believed to be, although it is difficult to prove, examples of an unapparent previous exposure (perhaps in utero) to the same or immunologically related substance. Usually, the hypersensitivity to drugs appears after the medicinal substance has been in use for a time. This has led to the explanation that such reactions are due to cumulative effects, and because some drugs are stored up in the body, cumulation also explained the reaction that reappears with renewed use of the drug after it has been omitted for many years. Meyer and Gotthieb, however, state that the storing of many powerful drugs in the liver, kidneys, bone marrow, etc., may occur to a considerable degree, without the least injury or change in their function.²⁶ Therefore, an allergic investigation of a drug reaction is always in order, irrespective of the demonstration of a quantitative increase of the drug in the individual.

Factors Determining Morphology of Drug Eruptions

Why the same drug will produce an erythematous or urticarial reaction in one patient and an eczematous eruption in another, and why the different drugs may produce the same type of reactions in various individuals, is dependent on other possible factors. Certain drugs, like arsenic and mercury, when applied in rather concentrated amounts as when used externally, may produce a dermatitis of an eczematous nature (epidermal effects). These same drugs when given internally, where the amount of the circulating drug is in a highly diluted form, may only affect the vascular structure of the cutis and give rise to the urticarial or erythematous lesions. It is believed by Josef Jadassohn that the question of whether the patient will respond with an eczematous type of reaction or another, is also dependent on the eczematous disposition of certain individuals. It may be also possible that the erythematous eruption represents one stage, a mild effect, which if it progresses further, will

finally result in the production of the usual eczematous dermatitis, for in some instances the eruption that appears may be erythematous or urticarial in certain areas of the skin and in other places of the same patient it may assume an eczematous appearance. This may be due also to some anatomical differences of various areas of the cutaneous surface. This is suggested, for example, by the observation that in the "fixed" eruptions (from antipyrine and its compounds, barbiturates, phenolphthalein, etc.), an erythematous patch may develop on the skin of the trunk with bullous lesions in the mouth and eczematous lesions on the genitals. On the other hand, certain drugs like cinchophen seem especially apt to cause a generalized urticaria,²⁸ other drugs the "fixed" eruptions, etc. Such characteristic features of drugs are of considerable help in detecting the drug responsible for the eruption.

Comments

The theory that most drug eruptions are an immunobiological phenomenon may be accepted on the evidence thus far advanced and until definite proof to the contrary shows it to be otherwise. Its mechanism as indicated by clinical and experimental studies point to the fulfillment of many postulates for a specific altered reaction capacity of the organism, i.e., allergy. An antigen-(hypothetical) antibody mechanism is assumed by some to show the close relationship of this type of allergy to another type—anaphylaxis.

Why the allergic phenomena, particularly as noted in drug eruptions, develop in some and not in others still remains a mystery. Luethlen suggested that it may be due to a colloidal disturbance. Others believe that it is based on changes in the H⁺ ion concentration in the organism. Various metabolic abnormalities, the liberation of histamine-like split products, endocrine influences, imbalance of the vegetative nervous system, intercurrent infections, previous injuries to the skin produced by various agents (x-rays, etc.), climatic differences, vitamin deficiencies, and other theories have been suggested, but experimental proof of any of these is difficult.

In the medical literature on the action

CONSERVATIVE TREATMENT OF THE NASAL SINUSES

HAROLD HAYS, M D, F A C S, *New York City*

I am well aware of the intense criticism which may greet my opening remarks and also that many rhinologists will disagree with some of my conclusions. However, there is only one way to drive home disagreeable facts and that is by talking plainly.

Quite a few years ago I wrote an article for the Gorgas Memorial Institute which was syndicated in many newspapers. It was entitled "The Sinus Bugaboo" and went on to state that perhaps more harm had been done by doctors and people knowing about sinuses than if they knew nothing about sinuses at all. I also stated that in the good old days, dirty, sniffing noses were cured by Dover's Powder and a good hot whiskey toddy. It is questionable to my mind whether people were worse off then than they are now. It would seem to me that physicians very often have frightened the wits out of people so that every time they have a cold they think they have a serious sinus condition which will need radical treatment. Most often a great many of the rhinologists view every cold in the head as a sinus condition and open up and wash out thousands of antra which would evacuate themselves with a very simple form of treatment or no treatment at all. I have frequently heard rhinologists say that hardly a day goes by without having two or three patients with sinus infections which need puncturing and irrigation. In our own practice, although we see many sinus cases every day, hardly once in six months is it necessary for us to open up a sinus surgically. I regret to say that thousands of sinuses are unnecessarily operated upon. It is indeed unfortunate that so many rhinologists examine sinuses with the idea in view that an operation is necessary. Patients have become so frightened at the word "sinus" that they immediately diminish their own resistance by worrying until in some cases they actually develop a serious condition.

The final conclusion to these remarks is that far too many antra are punctured and washed out unnecessarily, far too many sinus operations are performed either for acute, subacute or chronic conditions. I do not wish to put myself on a pedestal as the final arbiter in these conditions but I do wish to impress the profession with the fact that the conscientious rhinologist can cure ninety-nine per cent of so-called sinus conditions by conservative methods.

Within the past few weeks, one of the greatest physicians in this city died of an acute meningitis following an influenza. Years ago he had had an operation on his ethmoid cells. The infection crept through the granulation tissues in this region which had involved the cribriform plate. I have had two such disasters in my own practice. I had operated upon one of these cases myself. A second class of disabled patients are those who complain of severe frontal headaches which are usually due to a gastrointestinal toxemia. I was called upon to see such a patient in Los Angeles some years ago who died of meningitis after a radical frontal sinus operation when there was no doubt in my mind that an operation was entirely unnecessary. Further, I know of two patients who just avoided operation, one with meningeal symptoms who recovered by proper attention being paid to the intestinal tract.

By far the worse injustices are perpetrated on patients who show a clouding of one or both antra, either on transillumination or by x-ray pictures. Sometimes a fluid level is present. The roentgenologist frequently makes a statement that the antra and ethmoid cells contain granulations or pus. In my examination of thousands of x-ray reports and pictures, I find that in almost every instance there is evidence of such a condition, particularly in a large city like New York where the inclement winter weather will bring

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that drugs (organic or inorganic) may act as sensitizing agents, causing a specific allergic hypersensitivity of the organism. In the case of most drug reactions, this altered state manifests itself very often

in the skin, its appendages, and in the orificial mucous membranes, in the form of an eruption

853 SEVENTH AVE.

References

- 1 Kobner H *Berlin klin Wchnschr* 14 305 1877
- 2 Morrow, P. A. *Drug Eruptions, Selected Monographs in Dermatology*, New Sydenham Soc. Ed by T. Colcott Fox London 1893
- 3 Jadassohn, Josef. *Zur Kenntnis der Medicamentösen Dermatosen Verhandl d deutsch dermatol Gesellschaft V Congress* p 103, 1895
- 4 Idem *Deutsche Klinik* 10 117 Part 2 1905
- 5 Idem *Zentralbl f Haut u Geschlechtskrankh* 7 158 1922 3
- 6 Idem *Klin Wchnschr* 2 1680 1923
- 7 Idem *Ztschr f arztl Fortb*, 26 145 1929
- 8 Klauder, J. V. *Arch Dermat & Syph* 19 205 1929
- 9 Sulzberger, M. B. and Simon, F. A. *J of Allergy*, 6 39 1934
- 10 Von Pirquet, C. *Munchen med Wchnschr*, 2 1457, 1906
- 11 Doerr, R. *Haut d path Mikroorganism* Jena, Gustav Fischer 3rd Edit (Kolle, W., Kraus, R., and Uhlenhuth P.) 1 973, 1929
- 12 Bloch B. *Arch Dermat & Syph* 19 175 1929
- 13 Sulzberger M. B. and Wise F. *Ibid* 28 468 1933
- 14 Idem *Penn Med Jour* 37 973 1934
- 15 Sulzberger M. B. and Goodman, J. *Med Rec* 143 17, 1936
- 16 Forman J. *Specific Hypersensitiveness* Table designed and compiled by Jonathan Forman Columbus O
- 17 Landsteiner K. and van der Scheer J. *Jour Exper Med* 57 633 1933
- 18 Landsteiner K. *The Specificity of Serological Reactions*, Charles C. Thomas Springfield, Ill., 1935
- 19 Swift H. F. *J. A. M. A.* 59 1236 1912
- 20 Frei, W. *Klin Wchnschr* 7 1026 1928
- 21 Sulzberger, M. B. *Arch Dermat & Syph* 20 669, 1929
- 22 Jadassohn, W. *Klin Wchnschr*, 9 551, 1930
- 23 Landsteiner K. and Jacobs J. *Jour Exper Med* 61 643, 1935
- 24 Zinsser, H. *Resistance to Infections During* p. 370, 4th Edit, MacMillan Co., New York City 1931
- 25 Silverberg, M. G. *Irch Dermat & Syph*, 21 166 1930
- 26 Bernstein I. *Dermat Wchnschr* 95 1683 1932
- 27 Mayer, R. L. *Handb d Haut u Geschlechtskrankheiten*, Springer Berlin, 4 196 part 2 1931
- 28 Strauss, H. W. *Jour of Allergy*, 2 137 1931
- 29 Field H. and Sulzberger, M. B. *Ibid*, 1 139 1936
- 30 See Ref 27, page 116
- 31 Kesten B. and Laszlo E. *Arch Dermat & Syph* 23 227, 1931
- 32 Widal, F. et Pasteur Vallery Radot *Presse M* 28 93 1920
- 33 Labbe and Hauguenu *Ibid* 29 761 Part 2, 1921
- 34 Urbach, E. *Zentralbl Hautkrankh* 27 313 1927
- 35 Meyer H. H. and Gottlieb R. *Experimental Pharmacology*, 2nd English Edit., p. 598, Lippincott Co. Philadelphia, 1926
- 36 Hopkins, J. S. and Kesten B. M. *Arch Dermat & Syph*, 29 358 1934

Discussion

DR HOWARD FOX, *New York City*—Dr Abramowitz has discussed the allergic nature of drug eruptions in his usual careful and clear manner. He has given, I think, satisfactory evidence that the so-called idiosyncrasy to drugs is due to an acquired specific sensitivity whether the drug in question is organic or inorganic in nature.

We are glad to admit that the allergic conception of many disease processes has been of great value. As practicing dermatologists, however, we are not only interested in the nature of disease but want practical assistance in the diagnosis and treatment of our patients. In the case of drug eruptions the diagnosis is usually based on a history of taking a drug, on the disappearance of the eruption after discontinuance of the drug, and on its reappearance or accentuation when the drug is again taken. It was due to the last mentioned fact that Dr Abramowitz first proved that phenolphthalein could produce an eruption. I share a certain amount of credit in having reported the same original case (independently of Dr Abramowitz) but he deserves the chief credit in having proved his point by administering the drug again and causing a flare-up of the eruption.

It is unfortunate that cutaneous tests are of so little value in proving sensitization to drugs, with the exception of some unusual cases of eczematous type where patch tests are of assistance. It is also unfortunate that skin tests do not show as a rule, whether the administration of arsenamine (or allied drugs) will be well-tolerated or whether it will be followed by ill effects.

In sensitization due to certain drugs such as iodides and bromides, it should not be forgotten that the eruption may persist for weeks, months or even a year or so after administration of the drug has been discontinued.

One reason for skepticism or even hostility to the allergic study of skin diseases in general is due to the tendency to lay too much stress on the value of skin tests in unsuitable cases. I refer especially to the use of scratch and intradermic tests in contact dermatitis where patch tests are indicated. We are beginning to realize that the patient's history is usually much more important than skin tests though all too frequently this fails to help us. The indiscriminate use of skin tests causes a great waste of time and money and adds unnecessarily to the cost of medical care.

The mother is also advised to have the child wear a light woolen sleeping suit at night and to see that the patient does not sleep in a room with too much cold air. The mother is also instructed to instill a mild alkaline solution into the nose, night and morning, by means of a

after which they seldom suffer from a sinus condition except as an incidental part of their health life.

Sinusitis in Adults

Naturally these patients divide themselves into acute and chronic cases. In

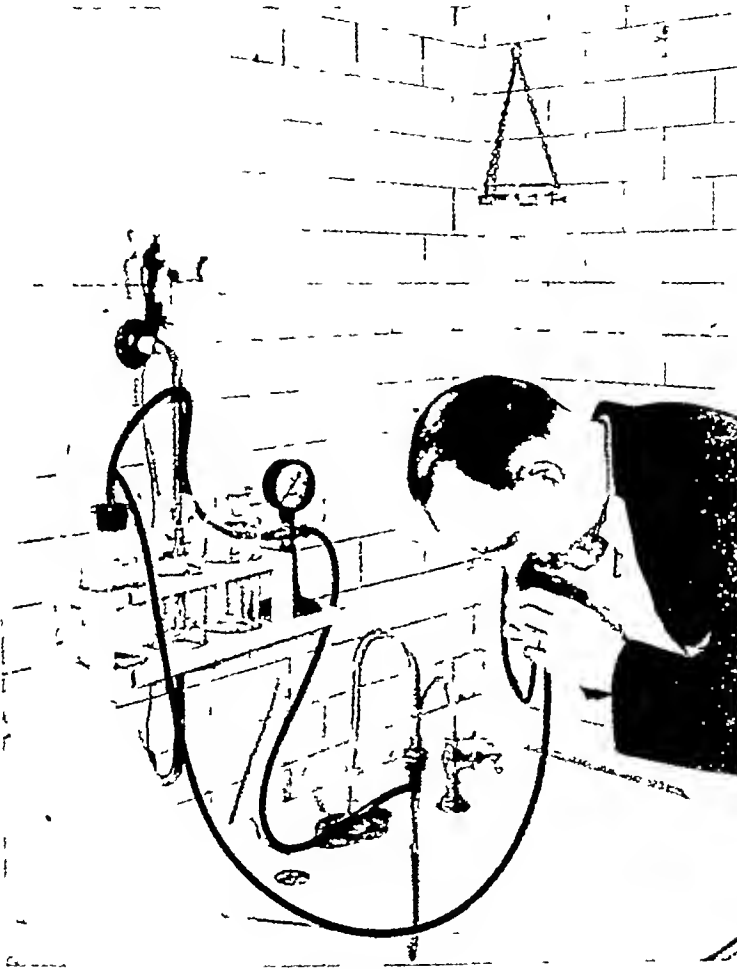


Fig 1 Hays Nasal Syphon Apparatus

medicine dropper. The result was truly miraculous. In these patients there was an improvement within forty-eight hours and today both patients have gained in weight and the sinus infection has disappeared.

Other cases, of course, are not so simple. Some children must go to a warmer climate if possible. And, in all cases the parents should be told that each winter the same symptoms may appear until the child reaches puberty.

the course of a year hardly a day goes by that we do not see a number of such cases. The type of treatment which is given will depend upon the case, but it is rarely necessary to advise operation on any of these patients. We have a variety of adjuvant treatments, but the general routine is about the same—increasing resistance and cleaning out the sinuses with a suction douche apparatus which will be described later. It is self-evident that if a definite pathology is

about a pathology in the ethmoid cells. Such a picture will not be present when summer comes on or when the patient's general physical condition has improved. About ten years ago, I suffered considerably from a congested nose and a post-nasal drip. X-ray pictures showed both antra filled with granulations and possible polyp. It was suggested that I have a radical antrum operation performed which I refused to have done. A few years later, when I was feeling better I had some more pictures taken. The sinuses were perfectly clear. Quite some years ago, a patient came in to see me complaining of a gnawing pain on the right side of the face. The x-ray pictures showed definite evidence of pathology in the right antrum—possibly a malignant growth. A radical operation was agreed upon and this advice was corroborated by another rhinologist. The patient decided to wait over the summer, during which time I could watch him. In the fall, he agreed to have the operation performed. We had another x-ray picture taken because the pain had disappeared and the patient looked perfectly well. A comparison of the two films showed that the growth had entirely disappeared. With these experiences and with attendance on thousands of patients with nasal complaints in over twenty-five years of specialized practice, I believe I am in a position to state that the majority of suspected sinus conditions should not be operated upon and that almost without exception the majority of these affections will recover if treated conservatively.

It is unnecessary to go into a detailed classification of sinus diseases. It is also unnecessary to do more than state that there are certain sinus affections which have to be treated radically. For our purposes the patients divide themselves into children and adults, into acute and chronic cases.

Acute Sinusitis in Children

Infrequently we come upon cases where acute symptoms are present so that immediate operation is imperative. The main symptoms are severe pain in the face or headache, rapid swelling of the tissues, often with closure of the

eyes, high temperature, and sometimes delirium or coma. These cases are rare.

By far the majority of these little patients have continual and repeated colds often without temperature and present a physical condition below par. Some still have tonsils and adenoids, others have had them removed, and still others show an edematous condition of the nasopharynx sometimes with remnants of adenoids still present. We shall take it for granted that if tonsils and adenoids are evident that advice is given for their removal.

Local physical examination of these patients will show an engorgement or edema of the mucosa of the nose, and there may or may not be pus or mucopus in the nasal cavities. Examination of the throat shows a definite nasal drip. Transillumination may show one or both antra cloudy but good drainage may be determined to be taking place because one can see the retina plainly. General physical examination frequently reveals that the child is below par physically. The x-ray pictures may show that both antra and ethmoid cells are cloudy.

Two such little patients came to my office within the past few months. In both cases (the tonsils and adenoids having been removed) radical operation on the antra and ethmoid cells had been advised by competent rhinologists.

In order to see what can be done in such cases, let us review the course of treatment in these patients. First of all it was evident that these children were suffering from no pain and were not running temperatures. Secondly it was evident that if the resistance of these patients could be improved, they would get well without operation. The engorged mucosa was shrunk with a mild solution of cocaine and ephedrine by placing a cotton tampon immersed in this solution in the nose. The patient was placed in front of an infra-red lamp for ten to fifteen minutes and then the nasal cavities were thoroughly washed out with a mild alkaline solution followed by an oil spray. But the next important thing was to build up the general system and nothing works better than the administration of a combination of vitamins A and D. It matters not what preparation is used.

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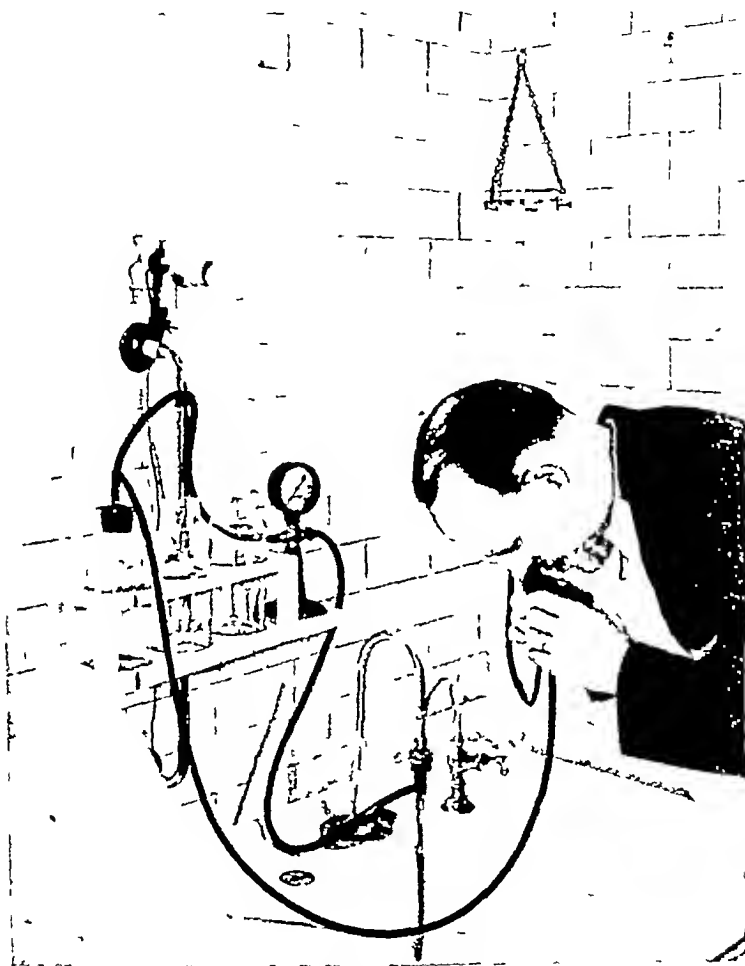


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the upper jaw on the left side. It was removed and the pain disappeared.

The conservative treatment of so-called chronic sinus conditions is of even more importance. One must look at these patients from two angles and two questions must be asked. *First*, is the patient going to be relieved of his local

of affairs which will take place after the patient has been operated upon. Again, one must consider whether diseased conditions in other parts of the body may or may not be responsible. For example, a few years ago a patient was brought to me who was suffering from a persistent cough with loss of



Fig 2 X-ray of antra, showing right antrum filled with pus
(X-rays from the files of Dr Herman B Philips)



Fig 3 X-ray of antra taken four days later, after use of Suction Douche three times. A large amount of pus was washed out of the antrum each time.

symptoms by radical operative procedures? *Second*, is the patient going to be relieved of general symptoms by operation? For example, how many cases of asthma have been relieved in whole or in part by operation on the sinuses?

One may make one absolute statement about the majority of these patients. If they continue to live in the same atmosphere, go on with the same work, always suffer the same indignity to their nasal membranes, continue to worry, never take any exercise during the winter months, they will always suffer from nasal and sinus symptoms whether they have any operation or not. In determining whether they need more than conservative treatment, one must take every fact into consideration, weigh the pros and cons and determine the actual state

weight. He looked sick. Some pathology was found in his right antrum and a radical operation advised. I advised against it but it was performed anyway. The patient died of a carcinoma of the lung some few months later.

The routine treatment of chronic cases is similar to that already outlined. Sometimes we attempt to create more osmosis by tamponing the nose. Our main advice to the patient is to have him go to a more agreeable climate if possible. If this cannot be done, we build up the general system as well as we can and tell the patient that operation seldom cures the condition, that palliative treatment will relieve them as much as anything. A good night's sleep helps a great deal so the patient is given a barbitol preparation and he is strenuously ad-

found in the nose, it must be attended to surgically, preferably at a time when there is a minimum infection of the mucosa. I refer mainly to a marked deviation of the septum, which interferes with drainage, hypertrophy of the middle turbinates or a polypoid condition of the mucosa in this area or large, polypoid tips of the inferior turbinates. Occasionally, a patient presents himself with a definite pathology in one or more of the sinuses which surgical intervention only can relieve, but these are relatively rare cases. What we object to most strenuously is the feeling on the part of many rhinologists that operations on the sinuses, of one kind or another, must be performed.

It is almost needless to say that the majority of acute sinus conditions will recover with a very simple treatment in the course of time, or with no treatment at all. Because an antrum appears cloudy is no reason for washing it out even when there is acute pain. Many times these cavities are washed out and no pus or mucopus found. The clouding is due to an inflamed mucosa and nothing else. The routine treatment in acute sinusitis in adults, whether it involves one antrum or all the sinuses is very simple. The patient's nasal mucous membranes are shrunk with a mild cocaine and ephedrine solution (as with children). The patient is placed in front of an infra-red lamp for fifteen to twenty minutes. If he has any pain at all, he is given a quarter grain of codeine and five grains of aspirin. Naturally the routine examination of the nose and throat is made, including transillumination. The pledgets of cotton are removed from the nose and another examination made for trouble that could not be seen before the membranes were shrunk. As a rule nothing serious is found. The nasal cavities are now washed out by a suction douche apparatus which I devised some years ago. The action of the shrinking solution has caused the loosening of the plugs in the natural openings so that they are easily removed by suction and the further suction is sufficient to rid the sinuses of infection for the time being at least. The suction apparatus consists of a T-shaped contrivance which connects permanently with the cold

water faucet. A tube goes from this to an indicator which records the amount of suction used. A second tube leads from a Valentine irrigation bottle which contains the washing solution. We use the old Harmon Smith formula. The amount of suction is registered on an indicator. The usual amount of suction is between five and fifteen pounds, when the water is turned on. To the nasal tubes are attached hard rubber tips which fit into the nostrils. First one side of the nose is washed out, the tips reversed and the other side washed out. If there is much pus in the first filled bottle, a second and a third bottle is used until the washings are clear. In the wash bottles one sees the plugs which closed the natural orifices and a considerable amount of pus or mucopus which has been drained out of the sinuses. Sometimes there is as much as an ounce or two. In nine cases out of ten, the patient is immediately relieved. After washing, the nose is thoroughly sprayed with some oily solution.

Inquiry is made about the patient's general physical condition and whether there is any trouble in the gastrointestinal tract. If the patient has to be built up physically he is given tonics, and routinely receives injections of one of the non-specific proteins. The patient is requested to return daily until the washings are clear. He is advised in the meantime to take a capsule containing two and one-half grains of aspirin, two and one-half grains of pyramidon, and one-eighth grain of codeine, three to four times a day. As a rule patients are cured in four to six treatments.

Other so-called acute sinus conditions are not so simple. At the beginning of this paper, I mentioned certain cases which were diagnosed as sinusitis and where the symptoms were caused by gastrointestinal toxemia. Recently a patient came to me who was complaining of a severe pain over his left eye which persisted night and day for over three months. The pain continued. Examination with x-rays showed no real sinus condition. His eyes were again examined and a weakness of the musculature of the left eye corrected. This was not enough. A buried wisdom tooth was found in

ected mucosa being in the nasal fossae proper, and not in the paranasal cells. It seems hardly likely that anybody would tear down the sinus walls in such a case.

However, diagnosis, accurate diagnosis of sinus disease, in spite of all mechanical aids is not uniformly satisfactory. Personally, I do not think much of transillumination save for its effect upon the mind of the patient, for thick bone on one side and thin on the other may lead to false conclusions. The only satisfactory x-ray pictures are the three-dimensional ones viewed stereoscopically. Where definite pathology exists, it will be shown exceedingly well the only disadvantage is the human tendency to try to read something into the interpretation which is false or of little importance. I have been tricked by pictures, but I still think that they are the very best means of making a thorough diagnosis of the size, shape, and extent of the sinuses, and determining variations from the normal. When a patient walks in at the first visit with a proud display of "pictures of the sinuses made by my own doctor," I begin immediately to plan what I shall say which will not make a liar out of me and a "monkey" out of the amateur roentgenologist. These single flat pictures are seldom of value. I would never think of operating upon a patient from a diagnosis determined by them. Even the best pictures are none too good.

Dr Hays is quite right when he decries the habit of washing out every antrum which seems to show a little cloudiness. Clinical evidence is a much better guide, for if there is little or no pus in the middle meatus or in the nasopharynx, an empyema of the antrum of Highmore is extremely unlikely. Moreover, I do not follow the practice which many excellent rhinologists do, of putting a needle through the naso-antral wall in an acute case, and giving daily irrigations for two or three weeks. If an antrum is that bad, it is much better to make a small permanent hole in the wall and wash through it as necessary. This does no harm, but it does permit of more or less constant drainage even in the absence of treatment. Irrigation through the normal opening is sometimes quite satisfactory, but this is entirely dependent upon the anatomy, whether there are two openings, or one large normal opening. The return flow may then quite readily pass out along side the catheter.

If any of us have forgotten our sinus pathology we must retrace our steps and spend a little time with Onodi or Hajek or Skillern or some other comprehensive authority. I believe that no sinus which

contains stinking pus, polyp or necrotic bone can be cured without radical surgery. This is especially true of the antrum and the frontal. Some of the most satisfied patients whom I have ever had, have recovered after such radical sinus surgery. Many of them had run the entire gamut of tampons and light therapy and visits to Arizona. This is especially true of the antrum cases. Radical antrotomy under block anesthesia can be quickly and skillfully done with destruction of nothing save a button of bone removed from the canine fossa and nasoantral wall. Removal of diseased antral contents is followed by nearly complete healing within two weeks during which time there should be a minimum of washing and spraying and general meddling. If we do a good operation, nature will often do the rest.

Radical surgery of the frontal is not so simple, but the results are nearly as good if we do not try to do too much in taking away normal bone and soft tissue. It so happens that never yet have I been obliged to remove the superciliary arch for necrosis. The deformity is very unsightly, and I have always doubted whether complete obliteration of the cavity is possible by any operative procedure, no matter by what label it is known.

Sinus surgery in children should be relegated to those patients with alarming symptoms or signs who seem likely to die if heroic measures are not adopted. Most children do surprisingly well with the conservative measures outlined by Dr Hays. What we need is more and better cooperation with the pediatricist. Working together we can get most of these little patients well without surgery. However, children with rheumatic fever should not be spared radical operations if we can feel reasonably sure that a focus of infection exists in the sinuses. More often, however, the nidus is in those little islands of infected lymphoid tissue which lie everywhere in the nasopharynx and on the posterior wall, even after thorough A and T removal.

Suction-irrigation is a helpful means of cleansing the nose, and it often gives relief from pain. Dr Hays' method of doing this seems admirable and entirely adequate. It cannot seriously be advocated as a "cure" for chronic sinusitis, however. We must always be mindful of pathology.

I am a little surprised that no mention is made in the paper of the Dowling Argyrol Pack. Personally, I have long since stopped using it, and I wonder if Dr Hays has also discontinued its use.

As to ephedrine, it is certainly no boon to the lary. They have gone to great ex-

vised against the constant use of adrenalin or ephedrine preparations

In closing this paper, again let me say that medicine has lost a great deal by treating patients empirically. Because it has seemed best to puncture antrum with trocar and cannula in certain specific cases is no reason why every antrum should be punctured. As a matter of fact, does washing out an antrum that way accomplish more than cleaning it out with a suction douche apparatus? Does washing out through the natural opening, with its attendant discomfort, do any more good? The mechanics are obvious. No one ever washed an antrum through a puncture opening. The fluid is forced through the antrum but comes out of the natural opening by pressure. So why not use the simpler procedure—the suction douche?

Conclusion

In conclusion let me emphasize the following points

1 The majority of sinus conditions, acute or chronic will respond to conservative treatment

2 Too many antra are opened and washed out

3 In many cases, operative procedures on the sinuses will not result in permanent benefit

4 Treating sinuses with the suction douche apparatus will cure many cases and be of material benefit in others

5 The majority of serious conditions result from a lowered body resistance. There can be no permanent improvement until the general system is brought up to par

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Discussion

DR I W VOORHEES, *New York City*—Dr Hays and I are old friends, in fact we were graduated in the same class from the old P & S in 1905. Therefore, in what I have to say there will be no thought of "personality" or vindictiveness. I know that Hays is a good doctor, and that in this paper he has set down his honest opinions as a clinician. He is making no attempt to be "scientific," but wishes to be intensely practical. Nevertheless, is it not possible that in some of his assertions he is too sweeping, and that in some of his nonsurgical therapeutics he is too enthusiastic? He says, for example, that "many sinuses get well after all, any, or no treatment." May we not also say that many sinus cases die after all, any, or no treatment?

The old economic law works here just as it works elsewhere, namely that the *summum bonum* of all human endeavor is to achieve the greatest good for the greatest number. Dr Hays is trying to do this by nonsurgical treatment of sinusitis. This is a little surprising, for in his early years as a specialist, it sometimes seemed to me that he used to overwork his surgery a bit now and then. Has he reformed, been converted to anti-surgery, or just what has happened to him? I don't know the answer to that, but I do know that in what he said to us just now, he is aiming to be very honest, and to follow his conscience. That is a praiseworthy thing for any man to do.

To begin with, I think he is right in say-

ing that the fear complex is too much with our sinus patients. Possibly, we, as rhinologists, have been telling the patient too much or allowing him to get hold of information concerning sinus trouble which is not good for him. A similar thing happened when we talked too much about mastoiditis. Every person who had a pain within an inch of the ear immediately became panicky from a "mastoid complex" and had visions of compulsory surgery, and, in the words of the newspapers, "death from an operation." Either too much or too little of a certain kind of knowledge can become harmful to our happiness and peace of mind.

I was startled to hear that "the conscientious rhinologist can cure ninety-nine per cent of so-called sinus conditions by conservative methods." This would leave only one per cent of all cases to surgery. Just what per cent of rhinologists would be left who are *not* too conscientious is left to the imagination. I have a feeling that it would be very dreadful. This is obviously an overstatement, for I doubt whether any one of us can cure ninety-nine per cent of any disease, no matter what it is. The law of averages is always working, and this law will see to it that none of us is allowed to become too cock-sure either of his ability or good fortune. The saving word in Dr Hays' sentence is "so-called," and I am sure he was thinking of many patients with rhinitis who have no sinus complications, or at least only a minor involvement in the sinuses, most of the in-

RATIONALE OF THE TREATMENT OF URINARY INFECTIONS

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As I pondered the subject of this paper it occurred to me that its wording serves to call attention to the very real progress which has been made in this field.

Not so very long ago, there was very little in the treatment of urinary infections which could be called rational. Urinary infection meant bacteria in the urinary tract, therefore, the proper thing was to inject germicides into the urinary tract, much as if it were a slop pail or specimen bottle. Observing physicians did not fail to note that the results were usually quite unsatisfactory, and just as unsatisfactory whether the injections were made frequently or infrequently, or whether the germicide was weak or strong. These latter facts cast discredit on the entire theory of cure by direct chemical germicidal action, and today every writer on the subject puts local treatment with germicidal substances last in his list of therapeutic measures against urinary infection.

It would be interesting to trace the development of each of our modern points of view about infection, but lack of time forbids. Our profession is conservative and skeptical, and rightly so, but it is always anxious to adopt that which is of proved merit. It takes time, of course, for a new idea to penetrate to all the multitudinous units of such a huge group, but speaking as I am to urologists, I can take it for granted that in the treatment of urinary infections it has become entirely orthodox with them to consider, *first* the focus or portal of entry from which the infection has originated, *second* stasis of any kind or degree which may exist in the urinary tract, and *third*, metabolic conditions which may favor infection, and to investigate all three of these thoroughly before worrying about what particular medicament is to be used, locally or otherwise. This gives us a

right to speak of the rationale of treatment, and shows that we are at last approaching the time when we shall prescribe our remedies in this field precisely according to a precise knowledge of the etiological factors involved.

I conceive that it would be presumptuous on my part to rehearse in detail all of the therapeutic methods now in vogue or in the process of exploitation. I shall, therefore, confine my remarks to a few observations which I believe to be pertinent, and which I hope may be provocative.

While some of our dental colleagues have protested, properly enough, against the indiscriminate pulling of teeth, yet one of their number has shown that almost ten per cent of apical infections are not susceptible of demonstration by the x-ray. This finding sadly complicates the problem when devitalized teeth are present, and adds to the weight of the physician's responsibility. The decision for or against the removal of such teeth can only be made by the closest and most conscientious cooperation between dentist and urologist.

In the matter of focal infections pyorrhea should not be forgotten. If this disease is severe, and has undermined the gums deeply, it may flood the system with infectious material just as effectively as any periapical abscess, and in such advanced cases, exodontia may be the only effective remedy.

The search for infectious foci must be painstaking and determined. The dentist, the laryngologist, the otologist, the dermatologist, the gastroenterologist, the gynecologist, and the proctologist may all be called on to help, and much depends on the intelligence and conviction with which they perform their tasks.

When everything is done there will remain some unfortunates whose infect-

*Read at the Annual Meeting of the Medical Society of the State of New York,
New York City April 29, 1936*

trenies with it. In effect it is evanescent, has to be frequently repeated, and is likely to cause undesirable change in the mucosa and small blood vessels. However, in combination with other agents, it is useful in office treatments instead of adrenalin which gives, at times, an undesirable local reaction.

Regarding the patient with carcinoma of the lung who also had a bad antrum, the cause of cough and loss of weight should have been looked for in the lung and not in the antrum. Competent physical examination and an x-ray picture of the chest would have made the diagnosis. But, even so, radical antrum operation did not shorten the patient's life, for, often, there is less actual discomfort after a radical antrum than after a submucous.

Finally, conservative treatment of the nasal sinuses is to be recommended if one feels reasonably sure that surgery will not be demanded in the long run. If surgery must be done ultimately, then we have merely been wasting time and substance by nonsurgical treatment.

DR CHESTER C. COTT, *Buffalo*—Dr Hays' paper is full of good common sense. At the close he seems to limit conservative treatment to the use of his suction irrigation only. Various intranasal measures should be included in this term, such as washing out the antrum through the middle meatus, normal meatus or not as you wish, and to the drainage of the frontal sinus by means of fracture of the middle turbinate toward the septum, constricting the membranes at the frontal orifice with adrenalin and removing the pus by suction with a cannula. This is very mild treatment and, in my hands, has often cured the acute frontal sinusitis. I cannot see how a frontal sinus full of pus and held there by edematous tissue can be removed by Dr Hays' method. And washing out the antrum through the middle meatus has no "attendant discomfort" to which I personally can testify.

There is certainly too much faith put into the reading of x-ray films. They should be considered as only another aid in diagnosis. Acute sinuses should not be operated on except in cases of emergency. Chronic cases are those which contain polyp or pyogenic membranes in the sinuses and which have resisted our efforts to obtain a cure by conservative measures. The x-ray is helpful in giving us an idea of the contour and size of the sphenoid and frontal sinuses but should not be relied upon to make the diagnosis for us.

Dr Hays does not mention the use of the Holmes Electric Nasopharyngoscope for diagnosis. Every case should be examined with this instrument as it gives a perfectly clear and definite view of the posterior nares. If pus is there, it can be seen in the places characteristic for each group of sinuses. It has made our specialty much more of a science.

The infra-red lamp in my hands has given the patient a very comfortable feeling for a short time but apparently does no more good than a thorough adrenalinization of the nose and does not last any longer.

A warning is given against the "constant" use of adrenalin. I suppose office use or given as a spray or drops at home is meant. Recently a great deal of ephedrine has been sold over the counter. Still I have never seen any bad effect resulting from the use of it.

There certainly are some cases which will not improve regardless of the type of treatment or operation carried out if they remain in the same locality. Sometimes removing only a few miles away cures them—as long as they stay there.

Dr Hays may have the ideal conservative treatment here. My objections may be overcome in the future. At present I cannot see how it would empty the sinuses in certain cases. Still it would be much better to have this type of apparatus used to the exclusion of all other types of treatment if it would decrease the great amount of sinus surgery now being done.

At the annual meeting of the New York Academy of Medicine, held Dec. 3 at the Academy, 103d Street and Fifth Avenue, Dr. James Alexander Miller was elected president. Other officers chosen were Dr. Arthur F. Chace, vice president, and Dr. Lewis F. Frissell, recording secretary.

The retiring president, Dr. Eugene H. Pool, and Dr. Walter L. Niles were elected

to the board of trustees for five years.

Dr. James Grafton Rogers, master at Timothy Dwight College, Yale University, the guest speaker, discussed the problem of socialized or State medicine and advanced the opinion that the objectives sought by the supporters of State medicine were being attained by changes within the profession and practice of medicine itself.

not only the existence but also the prevalence—of mild and obscure forms of urinary obstruction is at the present moment one of my dearest personal hobbies, and I must therefore crave your indulgence for what I say about it

The extreme attitude would be that in any case in which urinary infection *persists* for a long time, one should *assume* that obstruction and stasis exist. On this assumption, the urologist would approach his task with the idea that he is facing the necessity of proving positively that there *is no* obstruction or stasis, rather than the usual idea that he is facing the necessity of proving to a moderately skeptical audience that there *is* obstruction or stasis. I do not advocate or recommend such an attitude, but I suggest it to urologists of an investigative turn of mind as a stimulus to the intensive search for mild and obscure obstructions. In my own work, this attitude has led me to believe that in any case where a ureteral narrowing comes in question, all three methods of investigation at our command—intravenous urogram, retrograde pyelo-ureterogram, and exploration with a bulb of proper size—should be used if there is the slightest doubt one way or the other. The final objective in each case must be, of course, the actual cure of an infection by suitable treatment directed toward the relief of the presumed obstruction.

Whether the obstruction is gross and unmistakable, or whether it is slight and perhaps somewhat doubtful, the treatment to be adopted must depend on the character of the obstruction. For example, systematic dilatation will cure most strictures of the urethra and of the lower segments of the ureters, but there are exceptions to this rule. Such exceptions are the extremely dense and firm strictures, which must be divided or excised, and congenital strictures of the urethral or ureteral meatus, which must be divided. On the other hand, strictures of the upper third of the ureters, congenital stenoses of the uretero-pelvic junction, or narrowings due to aberrant blood-vessels, bands of fascia or adhesions, can seldom be influenced by dilatation and must be treated surgically. Certain contractures of the vesical orifice can be successfully dilated, but median bar obstruc-

tions and dense fibrous contractures, whether congenital or acquired, must be treated surgically by some method which will remove the abnormal tissue and enlarge the vesical orifice to its normal size. In a word, the judgment of the keen and experienced urologist is invaluable because it will, in one case, save the patient from weeks and months of useless and irrational treatments, and, in another, from an unnecessary surgical operation.

Obstructions due to senile enlargement of the prostate need only to be mentioned, as they are usually obvious, and the proper treatment is known to everyone, but it is not so universally known that a chronic urinary infection often disappears after a prostatectomy, and this fact should be emphasized.

Before turning to medicinal and dietary methods of treatment, permit me to repeat urgently the plea that continuous efforts be made to impress upon the profession at large the paramount importance of urinary stasis in the causation and in the perpetuation of urinary infections, and that, if any infection persists more than three or four weeks, a complete and careful urological investigation should be carried out at once, instead of waiting for months and until everything else has failed. It should be remembered, also, that in the exceptional cases where medicinal or dietary treatment cures an infection in spite of an associated stasis—and this does happen sometimes—the patient still remains a prospective victim of the damage which will eventually result from the obstruction alone, even in the unlikely event that the infection never returns.

In ancient times, when the gullet was the royal road, through which passed practically all of the materials intended for the relief of human suffering, the popular remedies for bladder trouble were almost invariably in the nature of sedatives. Even in those days, however, the medicine which is still perhaps the best for urinary infections was in high favor. I refer to water. Except in certain circumstances, to be mentioned later, copious water drinking is the old reliable method for the cure of urinary infections, but its value is in direct proportion to the freedom with which the urine can be expelled from the body. Later, as I have

ious foci, while not escaping detection, are, from their very nature, practically incurable. Examples of this are severe chronic sinusitis, chronic pulmonary infections, especially bronchiectasis, and ulcerative colitis. In such cases, everyone concerned can only do his best.

The radical elimination of an active focus of infection may bring about complete and permanent cure of a urinary infection without the assistance of any local treatment whatever. Such an event furnishes rather weighty presumptive evidence that the urinary tract is anatomically and functionally normal. If, on the contrary, the urinary infection persists, with or without the eradication of a definite portal of entry, the wise physician will suspect stasis in the urinary tract and will set about a thorough search for it, not neglecting evidences of slight urinary obstruction, of a degree which the uninitiated might think unimportant and negligible.

The relationship between urinary obstruction and infection is getting to be an old story, and is well incorporated in the gospel of most urologists. Like many another clear and sparkling fact, it stared us in the face for a long time before it was recognized, and much gratitude is due those pioneers whose common sense informed them that if free drainage through a rubber tube would relieve a pyonephrosis, free drainage through the ureter might do the same thing. At the present moment, however, there is danger that the rest of the profession may lose sight of this fundamental and very rational concept, and ignore it in their enthusiasm for the fascinating theories underlying the dietary and metabolic systems of attack on urinary infection. The onus of preserving a rational balance in what we might call the popular attitudes toward these complex matters falls on the urologists. Anyone may speculate on the intricacies of the acid-base metabolism, of the body, or may admire the rich golden-brown color of pyridium-tinted urine, but only the urologist can evaluate a slight ureteral constriction or a fibrous contracture of the vesical orifice. It must be impressed on the medical world that drugs, vaccines, and diets, valuable as they are, can, in the nature of things, be

of very little use as long as there is definite interference with the free and unimpeded drainage of urine from any part whatsoever of the urinary tract.

Stasis of urine may be due, not only to obstruction, but also to lack of expulsive power from affections of the nerves supplying the muscular coats of the bladder or ureters. Everyone is familiar with the utterly intractable character of infections occurring in such cases, unless and until the emptying power is restored. This kind of stasis may well be called adynamic stasis. It may or may not be amenable to treatment, but its most important aspect is that it is sometimes very difficult to diagnose. Aside from the various examinations which can be made to determine the state of the central and peripheral nervous systems, I can only remind you of the cystometric test, and urge that it be employed in every doubtful case. The information it gives is exact and reliable, and its application is simple. I have frequently performed it with no special apparatus. If the catheter be connected with a vertical piece of glass tubing about four feet long, the pressures can be read off directly in centimeters of water. Fluid is injected through a side tube between the catheter and the upright tube. This arrangement can be assembled in a few minutes in any hospital, and in most urologists' offices.

Obstructive stasis is much more common, of course, than adynamic stasis. We are naturally interested to know just how common it is in cases of urinary infection. Quinby, in an article published in 1934, estimated that stasis was present in possibly fifteen per cent of the cases of infection. I am sorry that I cannot furnish any definite figures on this point, because it is my emphatic conviction that the correct percentage is very much higher than fifteen percent. If this is true, it must mean that many cases of obstruction have slipped through our diagnostic drag-net in the past. Localized renal pain, an enlarged kidney, frequent and difficult urination—all point the finger unmistakably toward obstruction and stasis. When, however, these cardinal symptoms are slight or absent, obstruction and stasis may still be present. To attempt to prove the existence—indeed,

ide or nitrate. This throws us back at once to older observations concerning the reaction of urine in infections. Normal urine varies in reaction according to the diet, since some foods are much more acid-forming than others. It is commonly stated that colon bacilli and tubercle bacilli are found only in acid urine, yet if the pH of the urine is below five (that is, more acid than 5) colon bacilli will not grow in it. It is commonly stated that urine infected with cocci is usually alkaline, but clinical observation shows that this is not true, although there is some evidence that a urine of about pH 7.6 (7.4 being neutral) is more apt to be infected with staphylococci than with colon bacilli. Be that as it may, everyone knows that colon bacilli, staphylococci, and streptococci can flourish together in the same urine. For many years, the plan of making the urine alternately alkaline and acid has been widely used in the treatment of infections, and the indifferent results ascribed to the difficulty, by means of diet or medication, in getting it acid enough or alkaline enough. At any rate, a good many people jumped to the conclusion that the chief virtue, if not the only virtue, of the ketogenic diet was the high acidity of the urine produced, and attempted to produce the same acidity by other and simpler means. The most spectacular of these were suggested by Crance, who gave large doses of nitrohydrochloric acid (aqua regia) by mouth, and by Shropshire, who gave hydrochloric acid in 1:1500 dilution by intravenous injection. Both claim success, but neither method has been followed by enough others to qualify as a generally accepted method. One should, perhaps, mention in passing the highly successful method of treating infections of urinary wounds with bacillus proteus and other urea-splitting organisms by local applications of acetic or phosphoric acid.

Over against this is the statement of Fuller that the active bacteriostatic agent in the urine of patients on the ketogenic

diet is the levorotatory form of beta-oxybutyric acid, and the clinical observation of Cabot that the acidity produced by the ketogenic diet is more effective than an equal acidity produced by drugs.

Certainly, the wise clinician must believe that much of all this is still *sub-judice*, but on the other hand it appears that the nature of the problem is such that it should be susceptible of a reasonably early solution, particularly if attacked by competent biochemists. I suspect that sooner or later we shall have either the active principle of the ketoniferous urine in convenient tablet form,* or a simple and easy method of producing a highly acid urine. The ketogenic diet in its present form is too difficult to prepare, and too unpleasant to take to be a very practical therapeutic method.

As a by-product, we may obtain a better knowledge of some physiological points. The reaction of the normal urine varies from hour to hour through the day. As hydrochloric acid is secreted into the stomach, hydroxyl ions are excreted in the urine to preserve the neutrality of the blood, and the urine becomes alkaline. As the acid radicles are resorbed during digestion, the urine becomes acid again. In gastric anacidity, this acid-alkaline tide in the urine does not occur, and some observers think such individuals are more susceptible to urinary infection.

I leave this group of fragments of knowledge with you in the hope that they may intrigue you as they have me. The ketogenic diet is a fine contribution, but it is not the last word.

In conclusion, may I urge that we keep our minds eager and open for all that is good, however new, but that we remember the fundamental importance of urinary stasis, and keep our dilators and our scalpels in good working order, for there is nothing that can possibly take the place of these instruments.

255 So 17 St

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Discussion

DR. F. J. PARMENTER, *Buffalo*—The control of urinary infection is paramount if the urinary tract is to be restored to its normal condition. Unless this can be accomplished,

other forms of therapy, which includes surgery, cannot be successfully carried out.

It is therefore necessary to understand the origin of the infection, the type of organ-

mentioned, germicidal substances seemed to be the logical answer to the problem of infection. I doubt if any one person could name all the germicides and antiseptics which have been injected into the urinary tract. Their very number is best evidence of their ineffectiveness.

Since the interior of the urinary tract is constantly bathed in urine, an effort to make the urine antiseptic was obvious. The two outstanding drugs for this purpose were methylene blue and hexamethylenamine. Since neither of these could be excreted in the urine in sufficient concentration to be invariably effective, numerous other drugs were tried, not only given by mouth but also injected into the veins. Some of these drugs are undoubtedly effective, but on the whole the results have been disappointing, in spite of the elaborate campaigns of commercial exploitation with which some of them have been popularized. Out of the tumult, it becomes clearer and clearer that only hexamethylenamine and perhaps acriflavine have retained any considerable part of their initial glory, and that only one really deserves a laurel crown for solid success. This is neosphenamine, which is a true specific against staphylococcus infections, often curing with a single dose and occasionally curing even in the presence of marked stasis.

Bacteriophage differs from the other members of this group, but like the others, aims to cure by direct destruction of bacteria. Few good results have been obtained with it.

Of the germicidal agents, then, we may say that in spite of enormous effort, they have been in the main a bitter disappointment. Even more than that, at the present moment we have to ask ourselves how many of the good results after injections and irrigations may have been due to the dilatation effected by the catheters used in making the injections, and how many of the good results after giving hexamethylenamine may have been due to the acidification of the urine which usually accompanies it.

The second general group of medicinal agents includes serums, vaccines, toxins, and toxoids. There has been little use for antitoxic sera, but vaccines, both autogenous and stock, have been used in

enormous quantities. Like the germicides, they have been in the main a disappointment. It is true that they have been used indiscriminately and often irrationally, and it may be that when their use is rationalized and they are not asked to do the impossible, they may become useful weapons. Of the toxins, tuberculin and various kinds of gonococcal toxins have found a few advocates, but it would be difficult at this time to evoke much enthusiasm for either. The only toxoid I can name is the staphylococcus toxoid, which has had little use, but which may also turn out to be of some value.

About twenty years ago, Dr. Raymond Hain, working in Baltimore, noted that dogs were very resistant to urinary infections, but that when they were deprived of their usual meat ration and fed on bread and milk, they became susceptible to infection. Infections so established could be cured by restoring the meat diet. Efforts to discover the cause of this phenomenon were not successful, and nothing practical came of it. A decade and a half later, interest in the subject was suddenly revived by the observation that the urine of children living on a ketogenic diet for the treatment of epilepsy was bacteriostatic, and that urinary infections disappeared from these children. The ketogenic diet was then applied to adults, and the results obtained were sufficiently good to arouse a tremendous wave of enthusiasm.

In trying to formulate the rationale of this, one runs into a curious maze of facts, clinical observations, impressions, and opinions. To begin with, the ketogenic diet consists mostly of fat, whether it be ingested fat—as in the diet of Helmholz and Clark—or the patient's own fat, as in the modification suggested by Nesbit. In deriving its energy requirements from fat, and in the absence of the usual carbohydrates, the normal body breaks down the fat incompletely, producing the ketone bodies, of which acetone and beta-oxybutyric acid are excreted in quantities in the urine. Such a urine is more acid than normal, and clinical observations shows that the acidity is so important in obtaining good results that the originators of the diet see to it that a pH of no more than 5.5 is maintained by giving, if necessary, ammonium chlor-

ide or nitrate. This throws us back at once to older observations concerning the reaction of urine in infections. Normal urine varies in reaction according to the diet, since some foods are much more acid-forming than others. It is commonly stated that colon bacilli and tubercle bacilli are found only in acid urine, yet if the pH of the urine is below five (that is, more acid than 5), colon bacilli will not grow in it. It is commonly stated that urine infected with cocci is usually alkaline, but clinical observation shows that this is not true, although there is some evidence that a urine of about pH 7.6 (7.4 being neutral) is more apt to be infected with staphylococci than with colon bacilli. Be that as it may, everyone knows that colon bacilli, staphylococci, and streptococci can flourish together in the same urine. For many years, the plan of making the urine alternately alkaline and acid has been widely used in the treatment of infections, and the indifferent results ascribed to the difficulty, by means of diet or medication, in getting it acid enough or alkaline enough. At any rate, a good many people jumped to the conclusion that the chief virtue, if not the only virtue, of the ketogenic diet was the high acidity of the urine produced, and attempted to produce the same acidity by other and simpler means. The most spectacular of these were suggested by Crance, who gave large doses of nitrohydrochloric acid (aqua regia) by mouth, and by Shropshire, who gave hydrochloric acid in 1:1500 dilution by intravenous injection. Both claim success, but neither method has been followed by enough others to qualify as a generally accepted method. One should, perhaps, mention in passing the highly successful method of treating infections of urinary wounds with bacillus proteus and other urea-splitting organisms by local applications of acetic or phosphoric acid.

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other forms of therapy, which includes surgery, cannot be successfully carried out.

It is therefore necessary to understand the origin of the infection, the type of organ-

ism or organisms, the degree of damage inflicted, and any mechanical factors which interfere with satisfactory drainage. To meet these requirements a thorough urological study should be made of all patients, including infants and children, in whom an infection of the urinary tract fails to clear up promptly or keeps recurring. To continue treating a case of pyuria with urinary antiseptics alone, which has failed to respond promptly, is only wasting time and the patient's money. Also, the medical attendant is discredited when the disheartened patient seeks other advice and the true cause of the pyuria is revealed and corrected. Those of us practicing urology have seen many patients who have been treated for months and years for cystitis only to learn, after much loss of time and suffering, that the origin of their infection came from an unsuspected kidney lesion, which when corrected, promptly resulted in cure.

A word about urinary antiseptics. It is obvious that the perfect urinary antiseptic is yet to be discovered, otherwise the market would not continue to be flooded with new ones and new combinations added to the old ones.

Of all these antiseptics, probably the one which has stood the test of time is hexamethylenetetramine (methenamine). Recently Schweitzer suggested combining it with camphor which he believes enhances the antiseptic value. Another chemical firm has combined methanamine with methyleneblue. And so it goes. I am sure that all the known urinary antiseptics have been tried with startling success in certain instances and as startling failures in others in which the same organism was present. This suggests that one antiseptic may act more efficaciously in one individual and a different one in another, the reason for this being unknown.

Neoarsphenamine in doses of 0.15-0.06 has acted almost specifically at times in cases of so-called sterile pyuria and in the coccus, particularly staphylococcus, infections. The dangers of the drug, however, must be borne in mind and suitable cases selected.

Urinary antiseptics should find their greatest value as a preventer of infections before and after instrumentation and operations. In infection its use should be confined to subacute and chronic infection where fluids can be safely reduced allowing the antiseptic to become concentrated. As the late Arthur Chute so often said, "Water is the best agent in acute infections." Here the antiseptic would be so diluted that its effect would be practically negligible.

Acidifying drugs. The ketogenic and

other diets are also used in the treatment of certain urinary tract infections, notably *B. coli*, and have their place in our therapeutic armamentarium.

I can heartily confirm all Dr. Davis has said, and share with him the feeling that there is still much more to be done in simplifying diets and developing methods to increase the acidity of the urine when such is needed, those in vogue having not infrequently proved disappointing.

The treatment of urinary infections may be summed up as follows:

- 1 A diagnosis (Urological examination)
- 2 Proper drainage, or removal of the affected area
- 3 Search for and removal of foci of infections when possible
- 4 The administration of urinary antiseptics, with or without additional drugs, to acidify or alkalinize the urine as the case may be, special diets, tonics, etc., as adjuncts

Finally, if the physician will think more about the diagnosis and less about therapy before such diagnosis is made, he will earn the gratitude of his patients by affording them early relief of their sufferings in the great majority of cases.

DR. GEO. W. STARK, *Syracuse*—Dr. Hunner, about 1912, read just such a paper before the New York Urological Society, and it did not go over very well. Since that time most urologists realize that urinary stasis must be overcome to successfully treat urinary infections. This point is best illustrated by pressure and urinary stasis in the pregnant woman. I have seen many a case of renal colic get well by changing the posture or by emptying the uterus, although a great many of these cases do extend into the postpartum and have to be treated by kidney lavage. These factors have been verified by means of the intravenous pyelogram.

DR. IRVING SIMONS, *New York City*—The results obtained by cystometric studies have shown us that the physiology of the bladder is a matter of great importance and has hitherto been greatly neglected.

In determining such data, I wish to state that aside from convenience of an assembled instrument for cystometry, it is necessary to have an instrument which is accurately standardized, otherwise the data is worse than none at all.

Such an instrument, the micro-cystometer and studies made with it, was presented by me at the meeting yesterday [See page 1135, August 15, 1936 issue of N. Y. S. JOUR. MED.]

DR. DAVIS (closing)—I am very grateful for the discussions which have been brought forward

I am particularly glad to hear from Dr Crance that more favorable results are being reported from nitro-hydrochloric acid

I wish to assure Dr Simons that I am not opposed to the use of cystometers. My object in referring to the use of an improvised cystometer was to stimulate interest in cystometry. As soon as anyone discovers the advantages of cystometry, he

will be anxious to procure one of the compact and convenient cystometers such as Dr Simons has constructed.

It is indeed true that Dr Hunner is the pioneer who first directed our attention to ureteral obstructions, and I am glad to do homage to him. As time goes on, I come to feel more and more that a good many of these obstructions are congenital, or at least have a congenital basis. Several of the slides I showed today depict troubles dependent on congenital malformations.

DR. FREDERICK P. REYNOLDS HONORED AT DINNER

On the occasion of Dr. Frederick P. Reynolds's retirement from the Secretaryship of the Committee on Medical Education of The New York Academy of Medicine, the members of the Committee gave a dinner in his honor, December 7, at The University Club.

The meeting was presided over by Dr. Carl Eggers, Chairman of the Committee, and was attended by the following physicians of the Committee on Medical Education: Emanuel Libman, Arthur P. Chace, Harrison S. Martland, Bernard S. Oppenheimer, F. Warner Bishop, Condit W. Cutler, Meredith F. Campbell, Ralph H. Boots, William F. MacFee, Carnes Weeks, John I. Moorhead, George Gray Ward, Charles A. Elsberg, Frederic W. Bancroft, Howard F. Shattuck, Herman O. Mosenthal, Walter P. Anderton, Lloyd F. Craver, Webb W. Weeks, Edwin G. Ramsdell, Thomas T. Mackie, Charles F. Tenney.

Present also were Major General Charles R. Reynolds, Surgeon General, U. S. Army, brother of Dr. Reynolds, and Dr. Mahlon Ashford, appointed to succeed Dr. Reynolds as Secretary.

Dr. John A. Hartwell, Director of the Academy of Medicine, who was unable to participate in the dinner, expressed his own

and the Academy's appreciations for the services rendered by Dr. Reynolds, in a letter addressed to the Committee.

"Dr. Reynolds," wrote Dr. Hartwell, "during his tenure of the directorship of the work of the Committee on Medical Education has rendered service of an outstanding character. His enthusiasm has been a constant inspiration to all the members of the committees which he has served. To my personal knowledge, no suggestion for an increased influence to the Academy in the educational field has ever failed to elicit Dr. Reynolds' enthusiastic support. His intimate knowledge of possibilities has made his guidance invaluable."

"It is not necessary to detail the actual accomplishment that has taken place under Dr. Reynolds' leadership because this is well known to the members of his Committee. However, were I able to be present, I should ask the privilege of expressing my personal gratitude and that of Dr. Williams, my predecessor, for the constant, loyal service that we have received from this very unusual man."

In addition to serving as Secretary of Medical Education, Dr. Reynolds was also Assistant Secretary of the Academy of Medicine.

AN OUTBREAK OF SMALLPOX

Health officials at Dansville, N. Y., combating an outbreak of smallpox, vaccinated 1500 adults and children in one day, early in December.

In a joint statement Dr. K. T. Rowe, village health officer, and Dr. Hollis Ingraham, State Department of Health physician, said that pupils would not be admitted to school unless vaccinated.

Their statement stressed the fact that the outbreak was mild in character.

At Hornell, where Dr. Rowe said the infection in Dansville had been traced, City Health Officer George E. Taylor reported seven cases, all previously diagnosed as chicken-pox.

Dr. Taylor ordered examination of the 3,500 school children in Hornell.

ROENTGENOLOGICAL CONSIDERATION OF DYSPHAGIA OF ESOPHAGEAL ORIGIN

JOHN M BARNES, M D, *Buffalo*

From time to time new observations in relatively well-worked fields of roentgen diagnosis call for a resummation of the available knowledge of the particular field in questions. Manges and Clerf¹ are responsible for such a recent observation in esophageal diagnosis. By means of combined roentgenologic and esophagoscopic examination, they established the group of congenitally short esophagi as another cause of dysphagia.

A review of our esophageal cases revealed a few similar cases hidden under such terms as benign partial stenosis, diverticula, and once as hiatus herniation of the cardia. The review further prompted an analysis of the roentgen methods and signs at our disposal in esophageal investigation.

Any approach to this field must be prefaced by an accounting of examination methods. We depend primarily on fluoroscopic observations following the administration of opaque materials. Of these latter, the liquid barium mixture with plenty of acacia or tragacanth is by far the most important, but the cracker crumbs and barium powder mixture of Barclay² and the opaque gelatin bougies of Hickey are also used when required. The barium filled capsule has been extremely disappointing and even misleading. It may hang incriminatingly at any of the physiologic narrowings in an entirely normal esophagus. We keep a jar of these in the laboratory principally as a reminder of past fallacies.

The patient is examined fluoroscopically in upright, supine, and at times Trendelenburg position, given sips of barium as necessary to outline the gullet. The finest focus tube compatible with load to be carried is advisable and it should hardly be necessary to stress perfect optical accommodation.

One further method of examination, of value from the standpoint of "scout" pur-

poses is the administration of a sip of barium mixture immediately before taking the routine lateral film in chest examinations. I recall one instance several years ago where this procedure would have cleared the diagnosis of a bleeding esophageal lesion in a patient who was thought clinically to have hemoptysis of phthisical origin. In this particular instance dysphagia was absent.

Stressing the roentgenological method of diagnosis should by no means detract from the importance of clinical correlation nor of esophagoscopic examination. Many of the cases encountered required full utilization of all available diagnostic measures and the fact that the roentgen method offers the best "scout" procedure should enhance rather than detract from the value of other examinations. Furthermore, it must constantly be stressed that early or small lesions may not be demonstrated at the first examination and that in the presence of persistent symptoms re-examinations must be performed until the cause is found.

The lesion found most frequently in our group is the diverticulum. Seven of these have been encountered exclusive of the Zenker's type, which actually arises in the pharynx. Fifteen outpouchings occurred opposite the hilus, two in the lower end of the esophagus immediately above the diaphragm. Their appearance is characteristic, extra luminal conical or rounded outpouchings, varying from one to four cm in diameter. The great majority were apparently primarily of the traction type resulting from contraction of paraesophageal scar tissue. Only one was responsible for clinical symptoms. In this instance the diverticulum measured approximately four cm in diameter, retained opaque material for several minutes after esophageal emptying, and produced mild substernal pressure partly relieved by coughing.

Next in frequency are esophageal neoplasms, nine being encountered. Of these, even involved the lower third, one the middle, and one the upper third. Of the ones in the lower third, over half showed obvious involvement of the cardia and only one might be regarded as relatively early.

The advanced cases showing rigidity and ragged irregular luminal narrowing and varying degrees of obstruction offer few difficulties in differential diagnosis. Benign stricture is as a rule neither so ragged nor so irregular and its longer clinical course permits a greater degree of compensatory dilatation and hypertrophy of the proximal segment. The possibility of confusion must however be admitted particularly when retained food and secretions preclude careful "relief" examination and produce suspicious filling defects.

Multiple esophageal varices might simulate the appearance of neoplasm, however the retention of pliability and distensibility of the wall in the presence of extensive filling defects should lead to a suspicion of their true nature.

The differential importance of the more unusual indurative lesions such as syphilis, tuberculosis, and actinomycosis is minimized by their remarkably low incidence and the frequent concomitant involvement of the mediastinum, pleura, lungs or skeleton. Extra luminal lesions like aneurysm, abscess, etc., not only fail to produce the rigidity seen in neoplasm but quite commonly produce displacement of the organ to a degree seen only rarely with intrinsic lesions.

The differentiation between neoplasm and cardiospasm may offer some difficulty when the cone-shaped terminus of the esophagus seen in achalasia is irregular or when a small fundal neoplasm is suspected as the exciting cause of spasm. Generally however, the esophageal dilatation, sharply localized and smooth constriction together with the fluoroscopic observation of sudden relaxation are sufficiently characteristic to identify cardiospasm. Six cases of this type have been encountered varying from very mild to quite severe.

Another group of spastic lesions of the esophagus arise as the result of the pres-

ence of foreign bodies. Opaque bodies offer no difficulty in localization or identification, however, non-opaque or minute semi-opaque bodies may defy our efforts at direct visualization. It is our practice in such cases to use thin opaque material as advocated by Moore. Frequently the foreign material has passed and only the tell-tale region of irritability or spasticity resulting from mucosal injury is found. Oddly enough two of our congenitally short esophagi have developed their symptoms within a few days of multiple tooth extractions. The narrowed area at the esophagogastric junction previously able to cope with properly masticated food was temporarily obstructed by poorly chewed food. Following regurgitation of the food particles we were able to identify the supradiaphragmatic junction of esophageal and gastric mucosa with the junctional narrowing characteristic of the condition.

A final group of spastic esophageal cases with dysphagia as their chief complaint is found in esophagitis. Four of these have been encountered, two relatively mild, two severe, one was associated with peptic ulcer at the lower end of the esophagus. In the mild cases motor hyperirritability with predominance of the circular fiber action and erratic passage of opaque material was observed. The patients complained of scratching or burning under the sternum with the quickly excited substernal ache which we have all experienced following the ingestion of very cold drinks. In both instances the previous ingestion of poorly diluted alcoholics seemed sufficient to explain the acute chemical esophagitis.

The two severe cases were somewhat less culpable both having long standing hyperacidity and pyrosis, one on the basis of gall-bladder disease, the other apparently a primary esophageal peptic ulcer. In both, motor irritability with multiple and reverse peristalsis was accompanied by intermittent spasm of the cardia. Mucosal studies revealed thickened mucosal folds showing some irregularity and multiple minute swellings. The changes in these instances were confined to the lower third of the viscus in contrast to the acute cases where diffuse involvement was found.

It is of interest that the peptic ulcer

was not picked up at the first examination but twenty-four hours later filled readily. Whether spasm, edema or retained mucus prevented filing the first time is beyond the point. The case illustrates definitely that re-examination may be necessary and offers a possible explanation

for the relatively few cases so diagnosed

MILLARD FILLMORE HOSPITAL

References

- 1 Manges, Willis F. and Clerf, Louis H. *Amer Journ Röntg & Rad Therapy*, 33 657, 1935
- 2 Barclay, A. E. *The Stomach and Esophagus*, Macmillan Co., New York, 1915

HOW THE DOCTORS CAN PAY OFF THE NATIONAL DEBT

True, the doctors have expressed no wish to pay off the national debt, and many of them might remark that they had other certain small obligations that ought to have attention first. But it seems that the scheme for having them do it contemplates payments to them, not from them, so that when they have paid off the many billions of our huge national indebtedness, they will be richer than they were before.

Of course we are living in an age of financial legerdemain and economic kaleidoscopy, but this seeming fantasy is presented in the usually sober *Public Health Reports*, issued by the U. S. Treasury Department, and is from the pen of Dean K. Brundage, Senior Statistician of the Office of Industrial Hygiene and Sanitation of the U. S. Public Health Service. Not to keep it a secret any longer, his idea is that if employers would provide adequate medical care for their workers, the annual saving to industry would soon be enough to liquidate our national obligations. Incidentally, the demand for additional medical attention would keep all the doctors busy and solve their own economic dilemmas.

Our statistical expert, after preliminary figuring too extended to quote here, calculates that a reasonable reduction in sickness and accident rates in an average plant would result in savings of "at least \$12,600 per annum per 1,000 employees. It appears, therefore, that an employer can afford to spend at least \$12,000 per year per 1,000 employees for preventing accidents and conserving health when his industrial accident rate is considerably below the average for industries covered by workmen's compensation law, and when there are a negligible number of illnesses among his workmen attributable to occupational health hazards. When industrial accidents or disabling illnesses occur at average or above average frequency, an expenditure larger than that indicated above for health and safety work obviously is warranted."

The higher sum may be warranted if

there is a hazard in the industry, we are told.

The expenditure of \$12,000 annually per 1,000 employees, estimated as warranted from an economic standpoint, may be appreciably increased when even a small percentage of the workers handle materials or are engaged in processes which may affect health adversely. The size of the extra appropriation needed for protection of the exposed workers obviously depends on the severity of the hazard. The direct and hidden costs of a single minor hazard might easily total \$8,000 per year, in which event an expenditure of \$20,000 per annum per 1,000 employees would be warranted for adequate health and accident protection. Or, in the absence of any industrial health hazard, an appropriation of an additional \$6,000 per year per 1,000 workers could be justified on the basis of its value to employees, for effective industrial medical service saves the workers at least \$6.20 per capita per year.

Now we come to the national debt, which our statistical expert brings into the picture in this impressive fashion:

The consumer seldom realizes the extent to which the costs of industrial accidents and sickness add to the price of products, or, stated another way, decrease the purchasing power of the dollar. The expenditure for medical care in the United States appears to have been approximately \$3,600,000,000 in 1929. If the indirect or hidden costs of sickness and accident are assumed to be only 28 times the direct costs instead of 40 times as was found for industrial accidents, the annual bill to the Nation is about \$10,000,000,000. An item of this magnitude obviously is an important factor in the cost of living.

One has to resort to the national debt to obtain figures large enough for comparative purposes. A 10 per cent reduction in accident and sickness, if maintained, would constitute a saving equivalent to liquidation, in slightly less than 3½ decades, of the present national debt of approximately \$34,000,000,000, a 20 per cent decrease would save enough to pay the entire sum in 17 years. A decrease of 10 to 20 per cent in the incidence of accidents and in the time lost from sickness with accompanying prolongation of the average duration of life is not a visionary, impractical goal, judging from experience along that portion of the road in this direction which we have already traversed.

COARCTATION OF THE AORTA

With Report of a Living Case

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Coarctation of the aorta is a constriction or atresia of the aorta in the region of its juncture with the ductus arteriosus or its vestige

Bonnet¹ divided the condition into the infantile and the adult type. In the infantile type there is a narrowing of the aorta between the origin of the left subclavian artery and the insertion of the ductus arteriosus. This is the region of the fetal aortic isthmus and therefore represents an exaggeration or persistence of the anatomical conditions existing before birth.² In the adult type the constriction is at or just distal to the ligamentum arteriosum. It has no counterpart in fetal life and it is for this reason that Bonnet established this classification considering the cause of the condition as something occurring in postnatal life.

However, Evans³ of the Cardiac Clinic of the London Hospital departed from this classification and divided coarctation into six types in a most satisfactory manner thus:

Type I Congenital stenosis of the aortic arch with a patent ductus arteriosus and hypoplasia of the proximal portion of the aorta. There are no large collaterals.

Type II Congenital stenosis of the aortic arch with a closed ductus arteriosus and hypertrophy of the proximal portion of the aorta. This type has a very pronounced collateral circulation and has the longest expectancy of life.

Type III Congenital atresia of the distal portion of the aortic arch with a closed ductus arteriosus and hypertrophy of the proximal portion of the aorta. This type is quite rare, the collaterals are large but it is compatible with life.

Type IV Interruption of the aortic arch in its distal portion with the ductus arteriosus widely open and hypoplasia of the proximal portion of the aorta. The collateral circulation is very large. The condition is rare.

Type V Congenital atresia of the proximal portion of the aortic arch with a patent ductus arteriosus. These cases live days only.

Type VI Congenital absence of the ascending aorta with a widely patent ductus arteriosus. These are examples of the rare corbiloculare.

Only types II and III are of clinical importance inasmuch as they are compatible with more or less prolonged life and may therefore be diagnosed during life.

The condition was first discovered by Morgagni⁴ in 1760. The first case was described by Paris⁵ in 1791. The infantile type was diagnosed only once in a child of three. In 1835 Legrand⁶ and Mercier⁷ in 1839 made a diagnosis of obstruction of the thoracic aorta. Oppolzer⁸ made the first diagnosis of coarctation of the aorta at the site of election. His two diagnosed cases were confirmed by autopsy and he gave a very accurate description of the diagnostic criteria.

The constriction of the aorta is of varying degrees but always occurs at or just distal to the insertion of the ductus arteriosus or the ligamentum arteriosum.

Externally there is a sharp inward kinking and annular thickening of the aortic wall which appears as if a ligature were tied about the vessel. Within, the lumen of the aorta may be further encroached upon or even occluded by a septum or diaphragm with or without an aperture in the center which is usually triangular. This septum or diaphragm is made up of the inner coats of the aorta.

The ductus arteriosus may be converted into a fibrous cord or one of its ends may be open and become dilated even to the extent of aneurysm formation and the possibility of rupture and death.

In the majority of cases there is dilatation of the ascending aorta as also left heart hypertrophy. This does not occur if the ductus arteriosus is widely patent for then there is right heart hypertrophy and hypoplasia of the ascending aorta.

The major part of the collateral circulation takes place between the superior intercostal branch of the subclavian artery

and the first aortic intercostal which springs from the aorta just below the constriction. This connection takes place by way of the posterior scapular, the interscapular, and the subscapular arteries which pierce the intercostal spaces from behind and pour the blood coming to them from the ascending aorta by way of the subclavians into the second and sometimes the fourth aortic intercostal arteries which conduct the blood together with that from the internal mammary arteries into the descending thoracic aorta below the constriction. The volume of blood so received is often so great that it causes a dilatation which may be aneurysmal or it may produce atheroma which may in time be the site of rupture right through or between the aortic coats (dissecting aneurysm). The aorta resumes normal size at the level of the fourth or fifth intercostal arteries.

The whole collateral circulation may be hidden in the posterior part of the chest and so not be visible.

The collateral circulation may take the path of the internal mammary arteries, connect with the epigastric branches of the external iliac arteries over the abdominal wall where they present themselves as large, whipcord tortuous trunks or as cirroid aneurysmal like bunches which may also be found in the axilla.

In both instances the collateral circulation arises from the subclavian arteries and both types may be present in the same patient.

There are frequently associated aneurysmal dilatations of the arteries of the brain particularly in the region of the circle of Willis and these may be the source of frank or intermittent cerebral hemorrhage.

These cases—particularly the infantile type—have frequently associated anomalies of the cardiovascular system as also of other viscera of the body.

There are two theories of the origin of coarctation of the aorta. (1) The Paulo-postnatal or Skodaic theory and (2) the faulty development theory.

The first according to Abbott² was indicated by Craigie⁹ in 1841 when he considered the obliterating process in the ductus arteriosus to extend into the aorta and so cause narrowing. This theory was later elaborated by Skoda¹⁰ and is

the one that Bonnet¹ accepts. Against this, however, is the fact that ductal tissue has never been found in the aorta.

Faulty development as a cause was first suggested by Raynaud in 1828. This is the theory accepted by most recent workers as also by Maude Abbott² and by Blackford.¹¹ Since the distal portion of the fourth aortic arch of the aortic arch system forms the part of the aorta at and near the ductus arteriosus, it is thought that some maldevelopment of this arch is the cause of the condition. It may be that some traction at this point may be the cause.²

The symptomatology is vague. Patients may continue into adult life before showing any symptoms. It is then latent until the patient may show a sudden break in cardiac compensation or suddenly have a cerebral or intrathoracic hemorrhage, the latter usually from a ruptured aorta or aneurysm or dissecting aneurysm. More commonly they exhibit a history of mild cardiovascular symptoms such as breathlessness on exertion, coldness of the lower extremities, headache, cramps in the legs, etc. These patients may have much better development of the upper part of the body than of the lower, they are above the average in intelligence, are athletic, and may exhibit the symptoms of hyperthyroidism.

On examination there is noticed a marked throbbing pulsation of the vessels of the neck which may also be felt to be much enlarged. Such pulsation and such vessels are also seen—but not in all cases—in the vessels about the scapula and in the intercostal spaces, as also over the abdomen. Sometimes grape-like bunches of dilated vessels may be observed over the abdomen or in the axilla looking like cirroid aneurysms.

On palpation the forcible pulsations and the hypertrophied vessels are felt in all these locations. The abdominal aortic pulsation is diminished as well as that of the femoral, the popliteal, the dorsalis pedis, and the posterior tibial arteries.

On auscultation there is usually heard a loud rough systolic murmur over the entire heart, more marked over the parasternal regions and over the aortic area. This murmur is often halo—or postsystolic² in time occurring just after the first heart sound. The murmur, while

it may be produced by the hypertrophy that accompanies the existing hypertension is usually produced by the current of blood in the enlarged and thickened internal mammary arteries. A similar rough systolic and sometimes diastolic murmur is heard over the enlarged and thickened collateral vessels in the interscapular space particularly the left.

The heart is enlarged to the left and the aortic dulness is widened.

The blood pressure in the arm exhibits hypertension while that in the lower extremities is either normal or low. Normally the blood pressure in the lower extremities is twenty mm or more above the upper.

On roentgenography the following direct evidences are found according to Fray¹²

- 1 No aortic knob—not pathognomonic
- 2 Defect or break in the continuity of the aortic arch in its descending limb in the left oblique film. This is pathognomonic. There may also be seen an indentation of the arch usually on its convexity.

Also the following indirect evidences

- 1 Left ventricular hypertrophy (blunt apex)
- 2 Dilatation proximal part of aorta
- 3 Erosions of the ribs. Is pathognomonic. These rib erosions are very important. Fray lists their characteristics as follows:
 - a. Multiple. May be more than one on one rib.
 - b. Involves only the lower rib margins.
 - c. Bilateral usually involving the posterior portions of the ribs as far as the posterior axillary lines.
 - d. Sulcation is smoothly curvilinear never rough or angulated.
 - e. No other alterations of the ribs.
 - f. None or little evidence of new bone formation. Upper line may show increased density.
 - g. No pathological fracture.

These rib erosions were first noted by Meckel¹⁷ in his classic illustration and reported by Craigie⁹ in 1841. First clinically reported by Rösler¹³.

The lower extremities may show a lower temperature than the upper even to the touch (Schapiro)¹⁴.

Blumgart, Lawrence, and Ernestene¹⁵ studied the dynamics of the circulation in two living patients.

There is a retardation and diminution of the femoral pulse. The femoral pulse ordinarily precedes the radial by 0.01–0.02 second. In these patients it was the re-

verse by 0.15 and 0.05 second respectively. The reason for the normal difference is that the heart to radial distance is greater than the heart to femoral. Dock and Raisbeck¹⁰ got the same reversal but the delay was only 0.02 second. In coarctation, the delay is due to the greater time required for passing the collaterals than for the normally direct route through the aorta thus making heart to femoral distance greater than heart to radial.

The diminution of pulse as pointed out by Bonnet¹ and restated by Maude Abbott² and Blackford¹¹ is due to the fact that the passage through the collaterals flattens out the pulse resulting in a slow rise and fall instead of the rapid that is normal. This slow rise and fall transmits the impression of smallness to the finger.

In one patient, tested, the femoral oxygen saturation was less than that of the brachial, perhaps because of the utilization of oxygen in passing through the large network of capillaries of the collateral circulation.

The velocity of the circulation, heart to femoral artery, was eleven seconds and femoral vein to heart nine seconds which is a reversal of the normal, again indicating the circuitous route used.

The diagnosis of coarctation rests upon the blood pressure difference between the upper and lower extremities, the demonstration of a collateral hypertrophied circulation, a diminished abdominal aortic pulse, a delayed and diminished femoral pulse, and the x-ray evidences in the aorta and heart, and particularly of the collateral circulation in the form of visible vessels, pulsations, and rib erosions. The most important single sign is the blood pressure difference.

These cases are usually seriously stricken in the prime of life if they survive the first few postnatal days. The modes of death are usually

- 1 Rupture aorta (aneurysmal or direct)
- 2 Cerebral hemorrhage
- 3 Subacute or acute bacterial endarteritis
- 4 Cardiac failure.

Case Report

A V, aged 26, first came under my observation eight years ago (1926) because he had been rejected for a bank position be-

cause of hypertension. His previous history was entirely negative except for pneumonia five or six years previously. For the past three years he had some shortness of breath, but only after running. He was athletic.

On examination at that time he had throbbing vessels in the neck, a heart somewhat enlarged to the left, and a systolic murmur heard all over the precordium and of maximum intensity over the aortic area. This murmur was also heard in the back. His brachial blood pressure was 160/88. He seemed in good condition, was given no medication, but cautioned about activity.

I next saw him six years later and this time suspected the diagnosis. He worked for a leading explosive powder company whose medical department examined him thoroughly. X-ray was reported as showing mitral configuration of the heart with slight left ventricular hypertrophy. EKG negative. His blood pressure at this time

was 152/90, abdominal aortic pulsation was weak as also his femoral. The dorsalis pedis and posterior tibial pulsations were not felt. Blood pressure of his lower extremities was not done at this time but eight months later his brachial blood pressure was 190/100 and the femoral systolic by palpation was 132.

His former x-rays were now secured and showed the absence of an aortic knob (particularly in the presence of hypertension), a heart enlarged slightly to the left, a failure to visualize the descending aorta in the left oblique film, and erosions of the ribs. The patient was again very kindly roentgenographed for me by Dr. Sydney Wentraub of the New York Hospital and again showed the same findings.

The patient is intelligent, athletic in build and temper, and has somewhat better developed upper half of body than lower.

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References

- 1 Bonnet, L. M. *Rev. de med.* 23 108, 255, 335, 418, 481, 1903
- 2 Hamilton, Wm. and Abbott, Maude E. *Am Heart J.*, 3 381, 1928.
- 3 Evans, Wm. *Quart. J. Med. N. S.* 2 1, 1933
- 4 Margagni, J. B. *Epist.* 18 art. 6, 1760 (also quoted by Evans above)
- 5 Paris, M. *J. de chirurgie de Desault*, 2 107, 1791
- 6 Legrand, A. *Arch. Gen. de Med.*, 8 528, 1835
- 7 Mercier, A. *Bull. Soc. Anat. de Paris*, 14 219, 1838
- 8 Oppolzer, *Vierteljahr. de Prakt. Heilk.* 3 69, 1848
- 9 Craigie, D. *Edin. Med. & Surg. J.* 46 427, 1841

- 10 Skoda. *Lancet*, 2 13, 1871
- 11 Blackford, L. Minor. *Arch. Int. Med.*, 41 702, 1928
- 12 Fray, Walter W. *Am. J. Roentgenology*, 24 347, 1930
- 13 Rosler, H. *Wien. Arch. f. inn. Med.*, 15 521, 1928
- 14 Schapiro, M. J. *J. A. M. A.*, 100 640, 1931
- 15 Blumgart, Herman R., Lawrence, John S., and Ernsteine, A. Carlton. *Arch. Int. Med.*, 47 806, 1931
- 16 Raisbeck, O. C. and Dock, Wm. *Radiology*, 12 58, 1929
- 17 Meckel, H. *Meckel's Archiv f. Anat. u. Physiol.*, p. 345, 1827

HOW NOT TO CROSS THE STREET

Londoners have had a lot of entertainment recently from a police car with a loud speaker stationed at busy crossings and warning people walking dangerously.

A powerful voice—though not always powerful enough to dominate the noisy traffic—would suddenly call out to an offender:

"Don't cross among the stationary traffic like that. It is very dangerous. You were nearly run over then, you know."

Sometimes the voice particularized its victim—

"The lady in the black coat—that's not the way to cross the street, madam. It's particularly unsafe, in fact. Always use the recognized crossing."

That was the general tenor of the official advice—to wait for the traffic to stop and, in the meaning—"don't dodge about, please."

The exhortations conveyed a lesson not only to those addressed, but to all within hearing. Especially in the morning, more and more of the passers-by who had time to kill became stationary and interested spectators. In the embarrassment of the men and women addressed individually they had discovered a grand free entertainment—a new and rich addition to those which the streets of London can always offer.

But even those who stayed to smile may have received some more substantial benefit than mere amusement. The more diffident among the people who were singled out, however politely, may decide in future to choose another crossing-place—one with no cautionary voice and no publicity for sinners.

VARICOSE VEINS AND VARICOSE ULCERS

Technic of the Injection Treatment

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In this paper I shall not give the details as to what the injection of varicose veins and varicose ulcers will accomplish. In the past several years, this has been written about and demonstrated by pictures so thoroughly, that I shall pass as an accepted fact that the proper injection treatment of varicose veins will safely eradicate those veins and cure varicose ulcers. It must be understood that not all leg ulcers are varicose ulcers, and the injection of veins cannot be expected to heal other than actual varicose ulcers. What I shall present is an outline of the present method of treatment of varicose veins and varicose ulcers which I use in my office and in the clinic at St. Luke's Hospital.

Treatment

Preparation of the patient. A thorough physical examination with urinalysis and blood Wassermann, should precede the injection treatment. Any abnormal condition, such as diabetes, high blood pressure and lues, should first be treated. Foci of infection, particularly in the teeth, tonsils, and sinuses, should be cleaned up.

The condition of the deep circulation is determined. Present or past phlebitis or thrombophlebitis must be looked for in the history and physical examination.

The following points are to be borne in mind if the treatment is to proceed rapidly and smoothly. Proper shoes are fitted and flat feet corrected. No constricting clothing is permitted about the legs. Any calcium deficiency should be corrected. Thyroid hyperfunction or deficiency is to be cared for. As much excess weight as possible should be removed.

If the patient's occupation necessitates his standing for long periods, he is required to walk about at intervals during his working hours. All other patients are instructed to continue their customary amount of walking, or if very little is

done, to increase it moderately. A patient confined to bed should not have injections.

Varicose veins. The skin is prepared with seventy to seventy-five per cent alcohol. The injection is ordinarily made with the patient sitting, although in some cases the veins will fill better when the patient stands. Rarely a tourniquet is used to distend the vein or to maintain for a time the contact of the solution with the vein wall. The veins are injected first in the feet and then progressively up the leg, entirely to the saphenous opening if they can be seen or palpated that high.

The use of very sharp needles without too long a bevel is most important in doing the injections with ease and without complications. For the larger veins, a one inch 21 or 22 ga. needle is used and for the very small veins a 24 or 26 ga. needle is satisfactory.

A small initial dose of the drug used (either quinine and urethane or sodium morrhuate) is given to determine the possibility of idiosyncrasy and the extent of closure of each individual patient's veins. A few seconds after the injection or the injections are made, the foot is elevated so that it is slightly higher than the hip. This is done because in some veins there is no appreciable circulation and as a result the medication damages the vein wall too severely. Also the drug may remain in the thrombus with resulting pain and inflammation or it may indeed actually prevent thrombosis.

Two to five days later, the patient should be seen again. From the extent of the thrombosis which has occurred the subsequent dosage can be approximated for the various sized veins. At each visit a sufficient number of veins are injected to use five c.c. of the sodium morrhuate, or two c.c. of the quinine hydrochloride and urethane solution.

From the Out-Patient Department of St. Luke's Hospital

If much swelling ensues, an Ace bandage is kept on the leg at all times the patient is out of bed. A certain amount of aching or soreness will result which is readily controlled by aspirin and the application of heat, unless the dosage has been too large, or the drug allowed to remain in the vein too long.

All visible and palpable veins are injected. If the saphenous can not be injected in its full length, it is cut and ligated immediately distal to its entrance into the femoral vein. There should be no veins left entering between the site of ligation and the junction with the femoral. If the patient is so obese that it has been impossible to inject the veins above the knee, an injection is made into the vein distal to the ligation before the incision is closed. This whole procedure can be done easily in the office under novocain anesthesia and the patient permitted to walk out of the office, even if both sides are done at one time.

In the dilated capillaries and small veins, only sodium morrhuate is used, as the quinine solution may pass through the wall in sufficient quantities to cause a superficial skin necrosis. For the same reason only a limited number of these small veins should be injected in any area at one time.

If, due to faulty insertion of the needle or movement on the patient's part, some of the solution is placed outside the vein wall, ten c.c. or more of normal saline, or an equal amount of blood from another vein, is immediately infiltrated through and around this area. If an extravasation occurs it can usually be noted at once as the patient complains of a stinging sensation or more than normal pressure is required to force the solution through the needle.

Varicose ulcers. Many writers advocate cleaning up the ulcer before starting the injections. I begin the injections at once, but use first only small amounts of the solution and increase them slowly, watching carefully for evidence of infection in the thrombi. The eradication of the veins is the most important part of the treatment of the ulcer and the first injected are those nearest to it.

At each visit the ulcer is scrubbed carefully with benzene. When this is thoroughly evaporated, a Lassar's paste

dressing is applied with pressure from either a firm gauze or Ace bandage. If healing appears to proceed too slowly, a rubber bath sponge split in half, is incorporated in the dressing over the ulcer, or an elastoplast bandage may be applied at each visit.

When all visible or palpable veins are injected and the saphenous ligated if necessary, the ulcer will usually be healed. If it is not, an elastoplast bandage or Unna's paste boot is applied, including the foot, ankle, and leg to the knee. This is removed every two to four weeks, and before reapplication all veins which can be found are injected.

This will practically always result in healing. In a few cases skin grafting will be found necessary.

Aftercare. When the veins are apparently all closed, the patient is requested to report at intervals of three months for two years, and, if possible, once a year after that. Any veins disclosed by careful inspection and palpation are injected.

Prevention and Treatment of Complications

Pulmonary embolus. This is a very rare occurrence with the injection treatment. It should not occur if the patient follows instructions as to exercise and there is no active phlebitis present at the time of injection. The treatment is the same as that of pulmonary embolus from any other cause.

Sclerosing phlebitis. If not transitory, this usually occurs when, due to poor venous circulation, some of the sclerosing solution remains in the vein long enough to be included in the thrombus. Thrombosis may even be prevented. A painful indurated red area appears along the involved vein. The treatment is chiefly prophylactic. If after the injection the leg is elevated, all of the solution will be carried into the general circulation and this condition cannot occur.

Should it occur, however, a small incision into the involved vein is made with novocain anesthesia, under carefully maintained asepsis. The contents of the vein are gently expressed and a sterile dressing applied with pressure along the involved vein. Prompt relief from pain is obtained and healing of the incision and the vein occurs by primary intention.

Slough If an appreciable amount of the sclerosing solution is deposited outside of the vein and not diluted by the infiltration of saline solution or the patient's blood, an area of necrosis will result. Should this happen, the area is excised, the resulting cavity packed with iodoform gauze, and a boric ointment dressing applied. At intervals of every two to three days, the wound is cleansed with benzene and dressed as at the time of excision. The area will clean up slowly, granulate in and leave only a relatively small but, usually somewhat pigmented scar.

Sloughs from the injection of small superficial veins can be prevented by the care in not injecting too many veins in closely adjacent areas of skin, using very little pressure in the injection, and always making certain that the entire bevel of the needle is within the lumen of the vein.

Sensitivity to sclerosing drug Careful questioning as to previous evidence of sensitivity to quinine, if that is the drug to be used, will avoid a frequent occurrence of this complication. Should the patient have an anaphylactic reaction after the injection, the immediate use of fifteen minims of 1:1000 solution of adrenalin hydrochloride subcutaneously will give complete relief excepting in a few cases in which the use of more of the same solution will be found necessary. Naturally a drug other than the one to which the patient is sensitive is used for the completion of the treatment.

Infection of the thrombi This ordinarily occurs because of the undiscovered presence of a pre-existing thrombophlebitis, and the treatment is that of the thrombophlebitis. It may also be due to the presence of undiscovered foci of infection, particularly infected teeth. Treatment should be interrupted long enough to clear up all foci of infection. The local condition is treated as any other phlebitis.

Failures

Recanalization This does happen, but

in my experience, very rarely. Possibly it is due to using too weak or too small amounts of sclerosing solution. Failure to inject the deeper varicose veins and to close the saphenous, probably have a considerable influence in producing this sequela. The treatment is reinjection and closure also of all varicose veins above the area involved.

New varices A patient who has developed varicose veins can develop more after those first present are eradicated. This is the reason that all patients are requested to return for examination at intervals after the apparent completion of the treatment. All varices are injected as they appear.

Residual symptoms of varicose veins These are invariably due to the fact that not all of the varicose veins have been closed although there are apparently no more present. Those deep in the subcutaneous tissues cannot be seen. Careful palpation will reveal their location excepting in the most obese patients. As mentioned before, ligation and distal injection of the saphenous will care for these cases.

Difficult closure This is one of the most common causes of failure in the treatment, probably second only to failure to find all of the involved veins. An increase in the amount or strength of the solution used will usually result in closure. If not, the solution is kept in the vein for a longer time by having the patient stand or by using a tourniquet. The time required can be determined only by increasing the period of time with each injection until a satisfactory closure is obtained. Removing the blood from the vein between tourniquets and then injecting the empty vein will give the same result.

Mistaken diagnosis If the symptoms present, or the ulcer on the leg are due to causes other than varicose veins, naturally treatment of the varicose veins cannot be expected to result in a cure.

182 E. 79 St

The Medical Society of the County of New York has formed a lecture bureau to provide speakers for lay organizations and is now developing a list of physicians who

are willing to give addresses. Members of the committee in charge of the bureau are Drs. Clarence G. Bandler, Peter Irving, and Alfred M. Hellman.

TWELVE YEAR MEDICAL SURVEY OF A LARGE COMMERCIAL ORGANIZATION

R FRANKLIN CARTER, M D, F HOWARD WESTCOTT, M D, and
A W ALLEN, M D, *New York City*

The Medical Department* is made up of a director who is also the surgeon, an internist who comes in daily, an eye, ear, nose, and throat specialist who holds clinic bi-weekly and a dentist who holds clinic on consultation day. These are assisted by a registered nurse and an experienced physiotherapist. A second registered nurse does the visiting and acts as relief clinic assistant. Adequate clerical assistants complete the personnel.

The work in our department consists in the examination of new employees, care of insurance cases, and minor medical needs as they arise on the premises. A general consultation clinic is held each week. A record of physical examinations, subsequent visits, and all absences due to sickness or injury is kept for each patient. The data to be presented was obtained from a study of these charts.

Our physical examination is similar to that required by large insurance companies. There are two classes made with respect to employment—those that pass and those that do not. For purposes of purely medical interest, all individuals are divided into four groups: A, B, C, and D. The first three are acceptable, the last, not acceptable. All the medical information and records are the property of the Medical Department and no rating other than "passed" or "D" (failed to pass) appears on any personal card outside of the department.

The medical groups are

A. Physically fit. No defects.

B. Physically fit. Defects of a minor nature, such as bad teeth, tonsils, etc., that could be easily eliminated to leave the individual in Class A standing. A follow-up has been conducted on these individuals.

C. Physically fit. Defects of a fixed nature, that in no way interfere with the expected longevity and usefulness of the

employee, such as loss of a limb, one eye, healed fractures, etc.

D. Physically unfit. Defects that either decrease the normal life expectancy or interfere with the duties of the employee. Any history or sign of tuberculosis, ulcer, gall bladder disturbance, heart, kidney or mental diseases.

In making a medical survey of a large commercial organization, we have found that the material could be presented in one of several forms, depending upon what points of interest we wished to emphasize.

Our first presentation by Dr. R. Franklin Carter¹ portrayed the general scheme of the Medical Department. When he organized the department in 1921, there were approximately 1963 employees who had been selected naturally, with no medical examination. These have been called the "No Examination" group and have served as our controls for comparison with those subsequently employed. All employees hired from 1922 have been examined and classified according to the qualifications noted above. He showed in very detailed charts, the value to the employer of such a medical selection. A second valuable conclusion showed very clearly that, by our present-day methods of examining and classifying the applicants, we could group them in such a way that valuable comparative studies could be made. These studies of the various groups have afforded us positive means of checking up the efficiency of our Medical Department.

One of the startling facts uncovered by our study was the exceedingly high percentage of time lost because of illness as compared to the time lost from accidents. This imbalance has become more marked as working conditions have improved and as the need to hurry decreased with the changed economic conditions. Thus, for 1921-31, 1931, and 1932, the figures in Table I demonstrate the change.

* Medical Dept. of the New York Times

TABLE I

No. of Employees	Days lost	No of days lost		Percentage of time lost	
		<i>Illness</i>	<i>Injury</i>	<i>Illness</i>	<i>Injury</i>
(1921-31) 2548	69 959	49,462	20 497	70 7	29 3
(1931) 2932	17 134	13 250	3884	77 3	22 7
(1932) 2992	14 512	11,441	3071	78 8	21 2

The relative percentage of time lost from illness is approximately the same in all groups, but the total time lost increased in each group from "A" to "D" and the "No Examination Group." For example, in the non-selected group, the percentage of time lost for illness was 71.2, seventy-eight, and eighty-one per cent, and in the unacceptable group, 83.3, eighty-six, and eighty-two per cent respectively. It would seem that the chief value of classifying employees was in respect to potential illness and not to forecast possible injury absences.

Table II illustrates the Cost per Man per Year for illness over a ten-year period and two subsequent one-year periods. They are based on an average salary of \$7.00 per day.

In a further analysis of these figures, it is important to segregate those types of illnesses which make up the majority of these absences. In order to make the analysis concise and easily understandable, we have grouped the diseases according to systems and the following outline will be followed

1 *Respiratory Diseases* Common colds, influenza, grippe, bronchitis, pneumonia, pleurisy, tuberculosis, and asthma comprise this group

2 *Miscellaneous diseases* Metabolic diseases, skin, nephritis, asthenia, and nervous and mental disturbances are included in this group

3 *Miscellaneous infections* These include arthritis, rheumatism, lues, adenitis, boils, infections of extremities, etc

4 *Gastrointestinal diseases* Liver, gall-bladder, and rectum are included.

5 *Ear, nose, and throat diseases* Illnesses pertaining to the upper respiratory tract are considered in this group

TABLE II

Group	1921-31	1931	1937	Average
A	\$17 50	\$18 68	\$17 17	\$17 78
B	21 80	24 00	24 70	22 50
C	27 45	20 80	20 00	23 10
No Px	26 53	30 72	25 90	27 71
D	73 04	83 85	58 83	71 90

TABLE III.—TIME LOST DUE TO VARIOUS RESPIRATORY DISEASES

GROUP "A"						
	1922-1931 (403 Emp)		1931 (568 Emp)		1932 (521 Emp)	
Diagnosis	Cases	Days lost	Cases	Days lost	Cases	Days lost
Common Cold	50	274	8	41	6	30
Influenza	3	51	2	25	3	46
Grippe	80	577	51	403	45	295
Bronchitis	16	232	4	19	3	23
Pneumonia	2	126	0	0	1	14
Pleurisy	3	35	1	16	2	21
Tuberculosis	2	368	2	124	1	72
Asthma	0	0	0	0	0	0
Total	156	1663	68	628	61	501
% of Time Lost For illness which was due to Respiratory Diseases	38 4%		38 5%		39 0%	
GROUP "B"						
	(865 Emp)		(1028 Emp)		(1024 Emp)	
Diagnosis	Cases	Days lost	Cases	Days lost	Cases	Days lost
Common Cold	124	270	20	112	17	86
Influenza	13	172	7	77	4	47
Grippe	131	1245	82	729	100	726
Bronchitis	34	426	8	69	8	128
Pneumonia	3	82	5	122	6	186
Pleurisy	9	126	8	75	8	139
Tuberculosis	0	0	3	255	1	72
Asthma	0	0	2	83	0	0
Total	314	2771	135	1522	139	1284
% of Time Lost for illness due to Resp. Conditions	20 7%		43 0%		35 4%	
GROUP "C"						
	(377 Emp)		(461 Emp)		(458 Emp)	
Diagnosis	Cases	Days lost	Cases	Days lost	Cases	Days lost
Common cold	75	380	11	67	2	10
Influenza	5	61	1	22	0	0
Grippe	63	584	44	143	32	242
Bronchitis	13	134	5	77	2	12
Pneumonia	4	178	0	0	1	16
Pleurisy	3	31	2	46	3	89
Tuberculosis	0	0	4	140	1	12
Asthma	0	0	0	0	0	0
Total	163	1368	67	495	41	381
% of Time Lost for illness due to Resp. Conditions	19 4%		35 7%		27 2%	
GROUP "D"						
	(38 Emp)		(49 Emp.)		(60 Emp)	
Diagnosis	Cases	Days lost	Cases	Days lost	Cases	Days lost
Tuberculosis	1	1095	1	140	3	407
Grippe	4	83	1	8	0	0
Bronchitis	4	148	1	42	0	0
Influenza	1	5	0	0	0	0
Colds	2	2	0	0	0	0
Total	12	1333	3	190	3	407
% of Time Lost for illness due to Respiratory Conditions	79 0%		32 3%		80 2%	
NO PHYSICAL EXAMINATION GROUP						
	(786 Emp)		(828 Emp)		(919 Emp)	
Diagnosis	Cases	Days lost	Cases	Days lost	Cases	Days lost
Common cold	177	1497	19	116	13	91
Influenza	56	961	3	32	14	144
Grippe	177	2604	66	714	41	402
Bronchitis	65	1736	11	294	9	86
Pneumonia	15	879	6	250	7	221
Pleurisy	24	433	1	12	0	0
Tuberculosis	7	1389	3	365	6	819
Asthma	2	90	0	0	0	0
Total	523	9589	109	1783	91	1563
% of Time Lost for illness due to Respiratory Conditions	32 4%		29 2%		33 3%	

TABLE IV—SUMMARY OF TIME LOST DUE TO RESPIRATORY DISEASES FOR 12-YR PERIOD

Group	Days lost due to respiratory conditions	Total number of days lost	% of time lost for illness due to respiratory conditions
A	2 792	7 216	38.6
B	5 577	16 454	33.9
C	2 244	7 410	30.2
Sub-total	10 613	31 080	34.1
No Px	12 935	40 291	32.0
D	1 930	2 782	69.3
Grand total	25 478	74 153	34.3

TABLE V—SUMMARY OF TIME LOST DUE TO MISCELLANEOUS DISEASES FOR 12-YR PERIOD

Group	Days lost due to miscellaneous diseases	Total number of days lost	% of time lost for illness due to miscellaneous diseases
A	1 310	7 216	18.1
B	1 753	16 454	10.6
C	1 120	7 410	13.7
Sub-total	4 183	31 080	13.4
No Px	8 117	40 291	20.1
D	47	2 782	1.7
Grand total	12 347	74 153	16.6

TABLE VI—SUMMARY OF TIME LOST DUE TO MISCELLANEOUS INFECTIOUS CONDITIONS FOR 12-YR PERIOD

Group	Days lost due to miscellaneous infectious diseases	Total number of days lost	% of time lost for illness due to miscellaneous infectious diseases
A	430	7 216	5.9
B	2 211	16 454	13.4
C	918	7 410	11.0
Sub-total	3 559	31 080	11.4
No Px	7 253	40 291	18.0
D	116	2 782	4.1
Grand total	10 928	74 153	14.7

TABLE VII—SUMMARY OF TIME LOST DUE TO GASTROINTESTINAL CONDITIONS FOR 12-YR PERIOD

Group	Days lost due to gastrointestinal conditions	Total number of days lost	% of time lost for illness due to gastrointestinal conditions
A	1 283	7 216	17.7
B	2 709	16 454	16.4
C	1 471	7 410	19.4
Sub-total	5 463	31,080	17.5
No Px	4 497	40,291	11.1
D	135	2,782	4.8
Grand total	10 095	74,153	13.6

6 Cardiovascular diseases Hypertension and arteriosclerosis are included in this group

7 Genitourinary diseases Gynecological conditions are also contained in this group

The analysis in Table IV would indicate that respiratory disease accounts for approximately 34.3 per cent of the time lost because of illness and thus becomes a very important item and a likely spot to attack in bringing down the cost of health insurance

In interpreting these tables, one must remember that it is sometimes difficult to exactly differentiate between colds, grippe, influenza, and mixed acute respiratory infections. Another source of error is among the cases which come in after having been absent and give their own diagnosis or bring in a medical certificate with one rather vague diagnosis or with several from which to choose. Our figures were compiled with these thoughts in mind and we believe they will compare favorably with future more carefully controlled special studies

Several groups of diseases were combined in Table V in order to make the presentation more compact and valuable. Detailed tables, such as shown for the respiratory diseases, are being eliminated in order to conserve space and only the summary tables are presented

It is not surprising that the highest figures are found in the older group of unexamined employees, because all cases of diabetes, nephritis, hyperthyroidism, etc., were rejected in hiring new employees. In spite of this nonselective hiring, a surprisingly low percentage of workers lose time for these illnesses which play such an important part in one's medical practice and clinic work. The most important causes for absence in this miscellaneous group were nervous upsets and definite mental states of various types. Although we have the usual numbers of diabetes and chronic nephritis, they rarely are ill enough to stay at home.

By far the most important infectious conditions, which were not associated with accidental causes, were the arthritic or rheumatic infections. These high figures are the result of prolonged absences by a few employees in contrast to the respiratory disease absences which were usually

of short duration but in endemic proportions. Although numerous cases of syphilis were encountered, these people, unless acutely ill, preferred to work and in many instances did not report to the Medical Department until after the acute stage was over (Table VI)

The absences classified under group in Table VII of diseases are made up primarily of numerous short illnesses called "acute indigestion," "stomach trouble," "food poisoning," etc. The most frequent organic diseases were the ulcers and gall-bladders. Absences from "operative appendicitis" was the largest single cause for lost time in the entire group and vividly brought to our attention the frequency which this condition is diagnosed.

A more detailed analysis of this important field and its relation to industrial medicine and health insurance is being made and will be reported at a later date. Table VIII is included here only to show its relative position in comparison with the whole.

The cardiovascular diseases as a cause of absence can be practically eliminated by careful selective choice of employees, at least during the first ten or twelve years of their employment. After this first period has passed, the increased age incidence will undoubtedly bring the figures up nearer to those found in our control group of unexamined employees. It should never equal the latter figures because, as we can see in the table of rejections, there are forty definite cardinals who would otherwise have been accepted

and increased the days of absence much sooner than the expected free period of ten years.

The most frequent cause for absence among cardinals is the onset of decompensation. The second most common causes are coronary disease and hypertension, which made up the bulk of the remaining absences.

TABLE VIII—SUMMARY OF TIME LOST DUE TO EAR, NOSE, AND THROAT CONDITIONS FOR 12-YR. PERIOD

Group	Days lost due to ear, nose and throat conditions	Total number of days lost	% of time lost for illness due to ear, nose and throat conditions
A	1 233	7 216	17 0
B	2 504	16 454	15 1
C	822	7 410	11 0
Sub-total	4 559	31 080	14 6
No Px	2 664	40 291	6 6
D	31	2 782	1 1
Grand total	7 254	74 153	9 7

TABLE IX—SUMMARY OF TIME LOST DUE TO CARDIOVASCULAR DISEASES FOR 12-YR. PERIOD

Group	Days lost due to cardiovascular diseases	Total number of days lost	% of time lost for illness due to cardiovascular diseases
A	0	7 216	0
B	652	16 454	3 9
C	387	7 410	5 2
Sub-total	1 039	31 080	3 3
No Px	3 456	40 291	8 5
D	523	2 782	18 8
Grand total	5 018	74 153	6 7

CHART I—DISTRIBUTION OF TIME LOST IN 12 YR. PERIOD

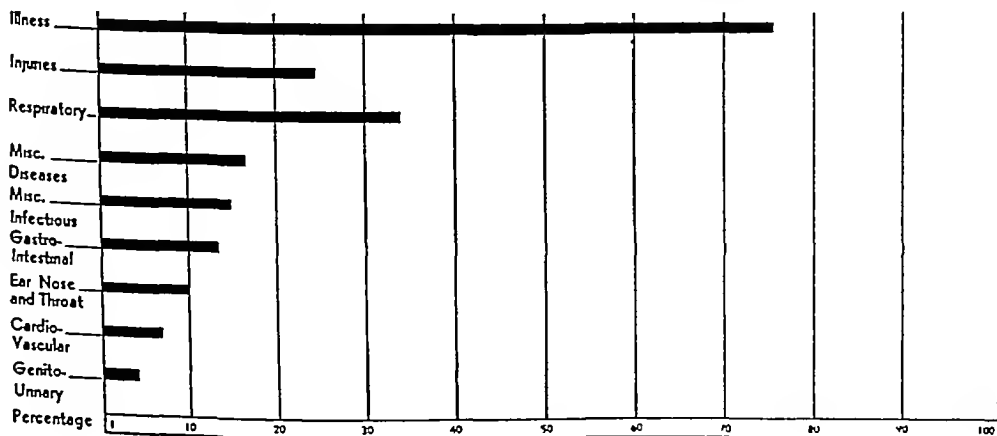


TABLE X—SUMMARY OF TIME LOST DUE TO GENITOURINARY DISEASES FOR A 12-YR. PERIOD

Group	Days last due to genito-urinary diseases	Total number of days last	% of time lost for illness due to genito-urinary diseases
A	168	7,216	2.3
B	1,048	16,454	6.3
C	448	7,410	6.0
Sub-total	1,664	31,080	5.3
No Px	1,369	40,291	3.4
D	0	2,782	0
Grand total	3,033	74,153	4.0

The surprising finding in Table X is the relative unimportance of dysmenorrhea as a cause for absence. Venereal disease, excluding syphilis, is the one of greatest importance in this field. The bulk of the remaining absences was composed of isolated single cases, many of which were surgical.

The accompanying Chart I illustrates the relative importance of these groups graphically. The perpendicular lines represent days of absence covering a period of twelve consecutive years.

Rejections

The original causes for rejection are still in force, but in addition we have included some which we have learned from experience were of importance. Our original standards for allergic individuals have been somewhat more elastic in recent months and all except frank asthmatics are now accepted, if otherwise normal conditions exist. Table XI gives the figures for rejections for the twelve-year period under consideration.

Summary

In summarizing this work, we feel that the three following statements can be amply justified:

1. Rejection of applicants with pre-employment diseased conditions was justified and the cost to the organization of

TABLE XI—NUMBER OF REJECTIONS AS COMPARED WITH PHYSICAL EXAMINATIONS

Year	Physical examinations	Rejections
1930	756	48 (6.3%)
1931	605	41 (6.7%)
1932	204	15 (7.3%)

CAUSES OF REJECTIONS		1930	1931	1932
Diagnosis				
1 Hypertension		8	9	8
2 Kidney conditions		7	12	1
3 Cardiac conditions		12	3	0
4 Suspicious chest		1	2	2
5 Eye conditions		3	0	1
6 Age		0	3	2
7 Diabetes		0	2	0
8 History of venereal disease		1	0	0
9 History of typhoid		0	1	0
10 History and general condition		0	1	0
11 Mental deficiency		0	1	0
12 Defective hearing		0	1	0
13 Possible CA of sigmoid		1	0	0
14 Suspicious genitourinary history		0	0	1
15 Failure to complete examination		15	6	0
Totals		48	41	15

similar control cases hired before examinations were required was determined.

2. Grouping of the accepted applicants according to the above mentioned scheme proved that, by such separation, we empirically divided them according to the relative cost of sick absences. A prediction of the amount of time lost in each group can thus be made.

3. By such selective hiring, a plan can be formulated whereby all applicants can be hired, provided a graded sick benefit plan is adopted. This eliminates the danger of setting up a social inequality as exists now by rejecting certain applicants.

Future surveys may add more valuable information, but we believe that only through such experience will the medical profession be able to continue to give medical care and also direct themselves in the field of industrial medicine of the near future.

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654 MADISON AVE.
117 E. 72 St

Reference

1. Carter, R. Franklin. *Industrial Medicine*, 4: 617, 1935.

N Y U ALUMNI ELECT

The New York University College of Medicine Alumni Association announces the election of the following officers: President, Robert P. Wadhams, '06, Vice-President, E.

David Friedman, '07, Secretary, James W. Smith, '17, Treasurer, H. Harold Lardaro, '24. The next Alumni Day will be held at the College on February 20.

MONGOLISM OCCURRING IN AMERICAN INDIANS

Report of Three Cases

JACOB SIRKIN, M D, *Newark*

From the Newark State School

In a recent article, Gesell¹ made a survey of the literature pertaining to mongolism occurring in the colored races. He found reports of cases occurring in Negroes, Chinese, Japanese, a Hindu, and a West Indian, but was unable to find any instance of mongolism occurring in American Indians.²

Therefore, since the literature contains no mention of American Indian mongolism, it was felt worthwhile to report the following three cases observed at the Newark State School.

CASE 1 P.L., female, age nine, American Indian, I Q 20 (Fig 1). Her father was a Cattaraugus Indian and mother, an Allegany Indian. Family history is negative, with no mental or nervous disease having been present. Mother was forty-seven years of age at time of patient's birth. Patient was third in order of four children in family, the other children being fourteen, twelve, and eight years old, respectively. All

are girls. There were no prenatal irregularities other than vomiting almost after every meal for the first three months of gestation. Delivery was spontaneous, pregnancy was full term. She was breast-fed and weaned at approximately one year of age. She was unusually fat for a child of her age, did not walk until the age of three and has never talked.

Physical examination. Patient is a somewhat stocky, overweight Indian child with mongolian features. Head is brachycephalic. Eyes are obliquely set. Tongue is thick and coarse with many fissures running through it. Lips are fissured. Incisors are irregular, teeth are deficient in enamel and several are carious. Palate is high and narrow. Tonsils are large and cryptic. Ear lobes are attached. Skin and hair are dry and coarse, there is an excessive growth of hair on her back. Fingers are short and spatulate. Both feet are markedly pronated. Creases in soles and palms are very coarse. Joints are hyperextensible. Deep reflexes are diminished. Heart, lungs,



Fig 1 (Case 1)



Fig 2 (Case 2)

and abdominal organs are negative. Blood Wassermann, blood count, and urinalysis are negative

Her behavior is pleasant and agreeable at times, but when disturbed, appears very fearful, cries, and tries to leave the examiner. She does not respond to questions or commands, her main interest being in leaving the room. There seems to be no coherence between thoughts and actions

CASE 2 B B, male, age six, American Indian, I Q 36 (Fig 2). His father was a Seneca Indian and mother, Cattaraugus Indian, parents unmarried at time of patient's birth. Father died several years ago of typhoid fever. Mother was forty at time of patient's birth, having had one child (also a mongolian) a year previously, and two boys, by a different father, twenty and twenty-two years ago respectively. There is no history of early life except that the patient walked at about one year.

Physical examination Patient is a fairly well-developed, fairly well-nourished Indian child with mongolian features. Head is brachycephalic. Eyes are obliquely set. Cheeks are quite ruddy. Tongue is coarse with fissures through it. Lips are fissured also. Palate is normal. Tonsils are large and cryptic. Ears stand out prominently, left lobe attached. Skin is dry and smooth, hair is dry and coarse. Fingers are short and stubby. Creases are prominent on soles and palms. Feet are slightly pronated. Joints are hyperextensible. Deep reflexes are diminished. Heart, lungs, abdominal organs, and genitalia are negative. Blood

Wassermann, blood count, and urinalysis are negative.

Regarding behavior, the child is very pleasant and agreeable, obeying examiner in all respects. Does not talk except for a few mumbling, unintelligible words. Plays with examining instruments and is aware of his surroundings. There is virtually no insight and judgment present.

CASE 3 A B, male, died a year ago at the age of six of bronchopneumonia, American Indian, I Q 37.

Parental history same as for his brother (case 2). There is no history of early life except that he walked at the age of two.

Physical examination Before his death he was a fairly well-developed, well-nourished Indian boy with mongolian features. Ears were prominent, lobes attached. Eyes obliquely set, teeth spaced, skin smooth and dry. Heart, lungs, and abdominal organs were negative, testicles cryptorchid. Several experienced examiners thought him to be a mongolian at the time. In March 1935 he died of bronchopneumonia.

Summary

1 No cases of American Indian mongolism have been recorded in the literature.

2 Three such cases have been here presented.

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References

- 1 Gerell, Arnold J A M A 106 1146, 1936
- 2 Idem Personal communication

HEART LECTURES OPEN TO PHYSICIANS

The New York Heart Association (Heart Committee of the New York Tuberculosis and Health Association, Inc.) is giving a series of lectures on heart diseases (Endorsed by New York Academy of Medicine). Coming lectures, open to physicians without registration charge or admission fee, include

"The Heart in Thyroid Disease," Eugene DuBois, M D Tuesday, Jan 26, 4 30 P M Cornell Medical College, Room B-07, York Avenue between 69th and 70th Streets

"Arteriosclerotic Heart Disease," Harold E B Pardee, M D Tuesday, Feb 9, 4 30 P M New York Academy of Medicine, 2 East 103rd Street.

"Arteriosclerotic Heart Disease," Harold E B Pardee, M D Tuesday, Feb 23, 4 30 P M New York Academy of Medicine, 2

East 103rd Street.

"Rheumatic Heart Disease," Arthur C. DeGraff, M D Tuesday, March 9, 4 30 P M Bellevue Hospital, Surgical Amphitheatre, First Avenue—27th Street.

"Rheumatic Heart Disease," Arthur C. DeGraff, M D Tuesday, March 23, 4 30 P M Bellevue Hospital, Surgical Amphitheatre, First Avenue—27th Street.

Treatment of Heart Disease, Including Irregularities of the Heart," Cary Eggleston, M D Tuesday, April 13, 4 30 P M Cornell Medical College, Room B-07, York Avenue between 69th and 70th Streets

"Treatment of Heart Disease, Including Irregularities of the Heart," Cary Eggleston, M D Tuesday, April 27, 4 30 P M Cornell Medical College, Room B-07, York Avenue between 69th and 70th Streets

BUNDLE BRANCH BLOCK

Diagnosis by Physical Signs

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In the past few years there has been controversy in the literature as to the frequency and significance of certain physical signs in cases of bundle branch block. The signs in question are visible reduplication of the apex thrust of the heart, palpable reduplication of the apex thrust, and audible reduplication of the first apical sound. Where disagreement exists as to facts and their interpretation, review of the findings of others and report of the experience of still another clinic seems warranted.

To some extent, these signs have been associated with bundle branch block since the experiments of Eppinger and Rothberger¹ (1910) upon the results of section of the branches of the bundle of His in the dog. Following section of one bundle, they noted that the action of the ventricles became asynchronous and that a "gallop rhythm" appeared. Later in the same year Eppinger and Stoerck² reported similar physical signs in clinical cases of bundle branch block. Of five patients, two presented reduplications of the heart's action and one a gallop rhythm.

King³ in 1928 reported the successful clinical diagnosis of bundle branch block and the finding in nine cases of eight instances of visible reduplication of the apex thrust, seven of palpable reduplication, and six of audibly split first sound. There was also one instance of first apical sound followed by an asynchronous systolic murmur. He noted similar physical signs in patients without bundle branch block, recognized hypertension and aortic insufficiency as offering differential diagnostic problems, and suggested as diagnostic criteria the height of the blood pressure and the vigor of the heart's action—either hypertension or vigorous heart action rendering the diagnosis of bundle branch block unlikely.

King and McEachern,⁴ describing a

series of fifty cases of bundle branch block, stated that visible reduplication of the apex thrust was observed in forty-two of the cases, palpable reduplication in forty, and audibly split first apical sound in twenty-eight. Two distinct systolic murmurs were noted in six cases and separated first apical sound and systolic murmur in eight. They reported the successful clinical diagnosis of thirty-four cases out of forty in which the attempt was made, and concluded that bundle branch block should be recognized clinically in the majority of instances.

Recently, King⁵ has re-emphasized the frequency and diagnostic value of signs.

Hill,⁶ disagreeing with King, examined an unstated number of cases and found but one instance of bifid thrust and four of reduplicated first apical sound. He stated that bundle branch block is not recognizable on clinical grounds.

Lewis,⁷ employing apex cardiograms, phonocardiograms, and electrocardiograms, examined twenty cases of bundle branch block and three atypical cases. He found bifid thrust but once, but recorded reduplicated first sound five times and presystolic gallop nine times. Although he agreed with Hill that bundle branch block cannot be diagnosed without the electrocardiogram, he felt that the phenomena occurred too frequently in cases of bundle branch block to be regarded as coincidental, and concluded that the reduplications pertain to the types of heart disease in which bundle branch block is found rather than to that anomaly itself.

Lastly, Wolferth and Margolies,⁸ whose objective was to determine whether the "common type" of bundle branch block is in fact left bundle branch block, obtained apex cardiograms upon five cases of which three displayed bifid thrust, one presystolic thrust, and one a single thrust. They also found bifid thrust in normal controls.

From the foregoing it is apparent that reduplication of the heart's apex phenomena is found in some cases of bundle branch block, that the number of such findings differs in the experience of different observers, and that similar findings exist in the absence of bundle branch block.

The present study covers a period of thirty-two months and includes observations upon twenty-two cases of bundle branch block and upon six cases without bundle branch block which presented reduplications of all three of the heart's apex phenomena in systole.

All of the cases with bundle branch block were of the "common type" or left bundle branch block. All satisfy the criteria of Carter.⁹ Eighteen of these cases were examined in the Electrocardiographic Laboratory of the Central Neurological Hospital, four were seen elsewhere by the writer—three in the Medical Out Patient Department of the Roosevelt Hospital (New York City) and one in private practice through the courtesy of Dr. Martin DeForest Smith. The Central Neurological Hospital cases were derived, with few exceptions, from the New York City Home for the Aged and Infirm; the Roosevelt Hospital cases were derived from ordinary Out Patient Department practice. All of the patients were examined personally by the writer. The resident physicians of the Central Neurological Hospital cooperated in the study in so far as it concerned the patients in that institution. Six of the patients were examined clinically upon one occasion, nine upon two, and seven upon three or more occasions.

Apex cardiograms and phonocardiograms were not taken, the necessary apparatus not being available.

The essential facts regarding these cases is presented in Table I. Of the twenty-two cases, fourteen were men, eight women. The youngest patient was forty years of age, the oldest eighty-three. The average age was fifty-eight. (Owing to the small number of cases all calculations are expressed to the nearest integer.) Six cases were in each of the fifth, sixth, and seventh decades of life, three were in the eighth, and one in the ninth. Nine patients suffered from

arteriosclerotic heart disease alone, eleven from arteriosclerotic heart disease plus hypertension. Of these latter, the systolic blood pressure was in excess of 150 mm. of Hg in all instances and in excess of 200 mm. of Hg in four. One patient suffered from rheumatic heart disease, aortic insufficiency, functionally Class I. The type of heart disease in the remaining patient is open to question, although he probably belonged in the arteriosclerotic group.

Six patients had experienced attacks of coronary thrombosis shortly before examination as judged by the history, temperature, leukocytosis, and other evidence. Five complained essentially of the anginal syndrome, and six of the symptoms of congestive heart failure. In four patients, the cardiac status was secondary in importance to other diseases, respectively cerebral thrombosis, sarcoma of the liver, gonorrheal arthritis, and myxoma. One man considered himself to be in perfect health, a cardiac murmur detected when he applied for a position as porter at the hospital leading to complete examination with electrocardiography.

In this group of twenty-two cases of bundle branch block, visible reduplication of the apex thrust was observed in six instances, palpable reduplication in ten, and audible splitting of the first apical sound in eight. In two additional instances the combination of first apical sound plus asynchronous systolic murmur was noted. The action of the heart was vigorous in ten cases, average in ten, and obscured in two cases—in the one by obesity and in the other by extreme emphysema.

These reduplications tended either to be absent altogether in the given case or to occur in combination with one another. Eleven patients (half of the series) displayed no reduplications whatever. But one case displayed a single sign audibly split first sound, and this individual had a pronounced kyphotic deformity which rendered inspection and palpation unreliable. Five cases displayed two of the signs—four palpable plus audible reduplication, and one visible plus palpable. In five cases, all three signs were present.

While King and McEachern⁴ found visible reduplication most frequently,

TABLE I

Number	Age	Sex	Type cardiac symptoms	Type cardiac disease	B P	Visible	Reduplications			Vigor of heart action	No exam
							Palpable	Audible	1st sound + Assyn mur		
1	58	F	None	Arteriosclerotic sive Hyperten-	190/110 140/70	0 0	0 0	0 0	0 0	Absent Av	2 2
2	74	M	Angina	Arteriosclerotic							
3	57	M	Coronary Thromb	Arteriosclerotic	118/70	0	0	0	0	Av	1
4	43	M	None	Unclassified	135/80	0	0	+	0	Vig	5
5	40	M	None	Arteriosclerotic sive Hyperten-	164/100 130/60	0 +	0 +	0 +	0 0	Av Av	2 2
6	64	M	Angina	Arteriosclerotic							
7	70	M	Coronary Thromb	Arteriosclerotic sive Hyperten-	190/130	0	0	0	0	Av	1
8	62	M	Cong. Ht. Failure	Arteriosclerotic	130/80	0	+	+	0	Vig	1
9	52	F	Cong. Ht. Failure	Arteriosclerotic sive Hyperten-	170/100	0	+	+	0	Vig	2
10	45	F	Angina	Arteriosclerotic sive Hyperten-	235/115	+	+	0	0	Vig	5
11	52	F	Angina	Arteriosclerotic sive Hyperten-	240/130	0	+	+	0	Vig	2
12	61	M	Coronary Thromb	Arteriosclerotic	90/60	+	+	0	+	Av	3
13	56	M	Coronary Thromb	Arteriosclerotic	140/105	0	0	0	0	Absent	3
14	50	F	Angina	Arteriosclerotic sive Hyperten-	180/?	0	+	+	0	Vig	1
15	79	F	Cong. Ht. Failure	Arteriosclerotic sive Hyperten-	175/80	+	+	+	0	Vig	5
16	69	F	Coronary Thromb	Arteriosclerotic	130/88	0	0	0	0	Vig	5
17	60	M	Cong. Ht. Failure	Arteriosclerotic sive Hyperten-	186/112	0	0	0	0	Vig	1
18	42	M	Coronary Thromb	Arteriosclerotic	90/40	0	0	0	0	Av	2
19	44	M	None	Arteriosclerotic	130/80	0	0	0	0	Av	2
20	44	M	None	Rheumatic, Aortic Insuff	132/70	+	+	+	0	Vig	3
21	62	M	Cong. Ht. Failure	Arteriosclerotic sive Hyperten-	200/130	+	+	0	+	Av ..	1
22	83	F	Cong. Ht. Failure	Arteriosclerotic sive Hyperten-	235/115	0	0	0	0	Av	2

Comment: Heart's action obscured in Case 1 by Obesity and in Case 13 by Emphysema. Primary Diagnoses in cases without cardiac symptomatology: Case 1 Cerebral Thrombosis. Case 4 Sarcoma of Liver. Case 5 Gonorrheal Arthritis. Case 20 Myxoma. Case 19 considered himself to be in perfect health.

palpable reduplication next, and audible reduplication least frequently, in the present cases palpation and auscultation each yielded an equal number of positive findings and inspection a lesser number. One possible reason for this is the fact that three of the four patients whose apex thrusts were palpably but not visibly reduplicated were women with large breasts.

In some of the cases the signs were inconstant. Thus in Case 12 the signs were not noted when the patient was admitted to the hospital but were fairly obvious when he was up and about the ward a few weeks later. In Case 15 all three signs were present when the patient was admitted and a clinical diagnosis of bundle branch block was correctly made. There-

after, however, during a period of a year during which the patient was repeatedly examined, the visible and palpable phenomena were in abeyance and the splitting of the first apical sound was but intermittently present. In Case 10 the signs were noted eight months before the onset of bundle branch block as judged by the electrocardiographic evidence.

In four of the cases which displayed the signs clinical diagnosis was correctly made. In the remaining seven the electrocardiogram had been taken and read before the writer or those cooperating in the study were able to examine the patient.

To summarize, in just half of a series of twenty-two cases of bundle branch

block one, two, or three of the heart's apex phenomena were reduplicated

During the period of the study, out of a total electrocardiographic material at the Central Neurological Hospital in excess of three hundred patients who did not have bundle branch block, four individuals were observed each of whom presented all three of the reduplications under discussion, and two additional instances were observed in the Roosevelt Hospital Out Patient Department which likewise presented differential diagnostic problems. There were other instances of split first sound at the apex noted, but since this finding is relatively common even in the healthy, such instances were not considered worth including in this study.

The six patients presenting all three reduplications in the absence of bundle branch block, four men and two women, ranged in age from forty-seven to seventy-seven (Table II). The average age was sixty-five. One patient was in the fifth decade of life, one in the sixth, one in the seventh, and three in the eighth. Four suffered from arteriosclerotic heart disease with hypertension, one from essential hypertension with uremia, and one from syphilis of the aorta with aortic insufficiency. With the exception of the last, all of the patients were markedly hypertensive, the systolic blood pressures being respectively 204, 264, 180, 260, and 190 mm of Hg. The syphilitic patient had a normal systolic pressure with a wide pulse pressure. One of the arteriosclerotic patients and the uremic patient complained of the anginal syndrome. Three of the patients came to examination

because of noncardiac complaints: cataracts, tuberculosis of the lungs, and cerebral arteriosclerosis. The syphilitic patient was in congestive heart failure when first seen.

Each of these individuals displayed visible and palpable reduplication of the heart's apex thrust and audible splitting of the first apical sound. The force of the heart's action was vigorous in five and average in one. The reduplications were constantly present and were easily elicited upon examination. Upon the basis of the signs, clinical diagnosis of bundle branch block was erroneously made in three cases.

Comparison of the two groups of cases indicates that the sex distribution and the years of life spanned by each is approximately the same, although the patients with bundle branch block were upon the average seven years the younger. From the point of view of etiology, arteriosclerosis is the most important factor in each group, having occurred in twenty (91%) of the cases with bundle branch block and in four (66%) of the cases without bundle branch block. One-half (50%) of the cases with bundle branch block were hypertensive whereas five (83%) of the other cases were hypertensive. Symptoms were much alike in the two groups except for the fact that coronary thrombosis had occurred recently in six of the cases with conduction disturbance, but in none of the cases without. Vigorous heart action was present in ten of the cases with bundle branch block and in five of the other cases (respectively 45 and 83%).

The most significant difference between

TABLE II

Number	Age	Sex	Type cardiac symptoms	Type cardiac disease	Reduplications	B	P	Visible	Palpable	Audible	1st sound + Assym mtr	Vigor of heart action	No exam
1	71	F	None	Arteriosclerotic Hyperten									
2	47	M	Angina	Hypertensive		204/90		+	+	+	0	Vig	2
3	59	M	Cong. Ht. Failure	Syphilitic Aortitis Aortic Insuff		264/156		+	+	+	0	Av	2
4	72	M	None	Arteriosclerotic Hyperten-		135/40		+	+	+	0	Vig	1
5	77	M	Angina	sive Hyperten-		180/70		+	+	+	0	Vig	1
6	68	F	None	sive Arteriosclerotic Hyperten-		260/110		+	+	+	0	Vig	3
				sive		190/106		+	+	+	0	Vig	2

Comment: Primary Diagnoses in cases without cardiac symptomatology. Case 1: Cataracts, Case 4: Tuberculosis of the Lungs. Case 6: Cerebral Thrombosis. Case 2 suffered from Essential Hypertension with Uremia.

the two groups is the fact that whereas reduplications were found in eleven out of a total of twenty-two cases of bundle branch block, they were found in but six cases in a total electrocardiographic material of over three hundred cases without bundle branch block

If the results of the present investigation be contrasted with those of others, it will be seen that they correspond more closely to the results of King^{3,5} and of King and McEachern⁴ than to the results of other observers. From the findings of King and of King and McEachern, they differ in degree but not in kind. The percentage of positive findings in the present cases is less, but the nature of the findings is identical.

On the other hand, the percentage of cases here described which presented no reduplications (50%) is sufficiently great to prevent acceptance of their conclusion that the majority of cases of bundle branch block may be recognized clinically.

The question rises, do the reduplications ever justify the clinical diagnosis of bundle branch block in the particular case or do they merely suggest the presence of that anomaly on the basis of the fact that they are more common in bundle branch block than in any other condition?

Based upon the experience of this study, it is the opinion of the writer that the signs possess no more suggestive value, but that, given two or more of them, the diagnosis of bundle branch block is rather more than less likely to be correct. Further, upon the experience of this study, use of the height of the systolic blood pressure and the vigor of the heart's action as criteria to disentangle cases with conduction disturbance from cases without, is of little value. Six of the eleven cases displaying the reduplications were hypertensive, and three of them had systolic blood pressures in excess of 200 mm of Hg. Eight of the eleven cases had vigorous systolic thrust of the heart. But two of the eleven had at the same time normal blood pressure, average heart action and reduplications.

There is but one circumstance in which, having in mind the findings here recorded, the clinical diagnosis of bundle branch block would seem to be reasonably secure. Since none of the cases without bundle branch block which pre-

sented the reduplications had experienced attacks of coronary thrombosis and six of the cases with bundle branch block had, it would seem reasonable to infer that if a patient develops bifid apex thrust with or without reduplicated first apical sound following an episode of vascular occlusion, he has developed bundle branch block.

Summary

1 Twenty-two cases of bundle branch block were studied to determine the presence or absence of visible and palpable reduplication of the apex thrust of the heart and audible splitting of the first apical sound, or first sound followed by an asynchronous murmur.

2 Eleven cases presented none of the signs. One case presented a single sign, five presented two, and five all three signs.

3 From a material in excess of three hundred cases without bundle branch block but six were observed which had clinically indistinguishable signs. Upon the average, these patients were somewhat older than the patients with bundle branch block, and a greater percentage were hypertensive and had vigorous heart action.

4 While the results of the study differ in degree but not in kind from the findings of King and of King and McEachern, the difference is sufficiently great to prevent acceptance of their conclusion that the majority of cases of bundle branch block may be recognized clinically.

5 The conclusion is expressed that the reduplications in question strongly suggest the presence of bundle branch block but do not *per se* warrant that diagnosis.

6 Clinical diagnosis of bundle branch block is most likely to be correct in a case of coronary thrombosis which presents the reduplications.

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References

- 1 Eppinger, H and Rothberger, J. *Zeitschrift für Klinische Medizin*, 70 1 1910
- 2 Eppinger, H and Stoerck, O. *Ibid*, 71 157 1910
- 3 King, J. T. *American Heart Journal*, 3 505, 1928
- 4 King, J. T and McEachern, D. *American Journal of the Medical Sciences* 183 445, 1932
- 5 King, J. T. *Ibid* 187 149 1934
- 6 Hild, I. G. W. *Quarterly Journal of Medicine*, 33 15, 1930
- 7 Lewis, J. K. *Archives of Internal Medicine* 53 741 1934
- 8 Wolferth, C. C and Margolies, A. *American Heart Journal*, 10 425 1935
- 9 Carter, E. P. *Archives of Internal Medicine* 15 803, 1914

THERMAL THERAPY IN CHRONIC DISEASE

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In the pathology of chronic disease, the most characteristic phenomenon is the apparent inability of the human engine to re-establish normal functional and structural conditions. Physical agents have played a role in the fight against chronic disease and infirmity since the early days of mankind and thermal agents have been in the forefront among them. The colonizing legions of the Roman Empire erected thermal establishments of a uniform pattern all over Europe and sufferers from chronic diseases became pilgrims to these and other hot spas. In the centuries of evolution since, thermal measures continued to be most popular for assisting the natural forces of restitution in the combating of chronic diseases. Clinical and experimental research and present day physical science have greatly enlarged their scope and effectiveness.

Physical Effects

The sources and forms of heat employed in modern therapeutics are manifold. No matter what form of heat is administered, its immediate effect is purely physical: a rise of temperature in the part to which heating is applied. The primary physical effect will vary according to the form of heat, its intensity, and length of application. It has been shown by Sonn  that with radiant heating maximum tolerance on the surface is 113.9°F , and on the under surface 117.8°F . With diathermy and short wave diathermy in animal experiments the following average rise in temperature was produced: joints, 8°F (Edstrom), stomach 1.3°F , pancreas, 4.5°F (Stewart and Boldyreff), orbit, 8.1°F (Moncrieff et al), pelvis of kidney, 2.1°F (Schliephake). Corresponding effects in human tissues were corroborated by many clinicians. General body temperature has been elevated with the newer methods of hyperpyrexia to 107°F .

According to the temperature law of Van't Hoff for every rise of 10°C the rate of oxidation is increased 2.5 times, and thus even temperature changes of tenths of degrees will influence cellular oxidations and exert marked effects on physiological processes.

Physiological Effects

The heat-regulating mechanism of the body endeavors to maintain a constant temperature and when heat is applied to a part from any external source, the vasomotor mechanism responds with an effort to dissipate the excess heat. There follows an active vasodilatation of the capillaries and a subsequent increase of arterial and venous circulation. Lewis¹ has shown that irritation of the skin releases a histamine-like substance which causes dilatation of the capillaries. This local hyperemia in turn results in an increase of the rate of removal of local tissue products and in stimulation of the local resistive forces, among these an increased phagocytosis.

An important therapeutic effect of local heating is that in mild dosage it acts as a sedative on irritative conditions of sensory and motor nerves. Hence the relief given by thermal measures in many painful sensory conditions and in cramps and spasm.

When heating is applied at sufficient intensity to a large part of the body or if heat loss from the body is prevented, a rise of body temperature and general changes occur. There is an increase of the circulatory rate and of metabolism, a rise in blood volume and oxygen consumption, and a change in the urine, blood, and sweat to the alkaline side. A summary of the complex local and general effects of heating can be found in the writings of Bazett² and other physiologists.

The attenuation or killing of heat sensitive organisms is another valuable effect

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of local and general heating. The gonococcus is the most frequently encountered heat labile organisms, recent fever therapy work by the Rochester group established that the thermal death time of various strains of gonococci at 41.5°C varies from six to twenty-seven hours in vitro, other investigators showed that an average of 107.6°C body temperature for six hours was destructive on *trepanoma pallidum* in experimental syphilis.

Artificial fever has become a recognized measure for increasing the protective and defensive mechanism of the body in many chronic diseases. Its presumable clinical benefits have been summed up recently by Hench, Slocumb, and Popp^a of the Mayo Clinic as follows:

- 1 A direct bacteriolytic or bacteriostatic effect due to the influence of heat itself on bacteria (without necessarily implying formation of immune bodies)

- 2 An indirect bacteriolytic or bacteriostatic effect resulting from increasing formation or mobilization of immune bodies

- 3 A local effect from vasodilatation, providing an augmented blood supply to inflamed tissues

- 4 A general effect from the heightened metabolism incident to fever

Forms of Heating

It is evident that the physical and physiological effects of heating on the structures of the body will vary not only according to the form but also according to the intensity and duration of heating. There is a certain interchangeability between sources of heating, and, by varying the other factors, similar effects may be produced by different methods. We are still far from the ideal of exact dosages to meet the variety of conditions and most of the technics established so far rest on empirical basis only.

Generally speaking, conductive sources of heating—hot compresses, hot poultices, hot water bottles—are least effective, because their source of heating is not constant, their heat penetration is limited and furthermore, they are cumbersome and often unbearable on account of the pressure exerted. Hot water baths and hot air "baking" are more convenient sources for heating the skin and superficial tissues but their penetrating effect is very

limited, with surface temperatures which can be safely tolerated, the deep lying tissues dissipate heat at a faster rate than it can be conducted to them. Hot whirlpool baths offer a useful combination of surface heating and mild mechanical stimulation. Radiant sources of heating—heat lamps and infra-red heating units—have come into fairly general use on account of the simplicity and safety of their application. They are also much more efficient in heat penetration because their rays penetrate the entire thickness of the skin, part of subcutaneous tissue, superficial strata of muscles, and accessibly located tendons and bones. Many unnecessary burns in recent years could have been prevented had neophytes abstained from applying diathermy without rhyme or reason for many of the conditions where heat radiation is just as effective and involves only a minimum of risk.

Diathermy or the passage of high frequency current through a part results in its conversion into heat. Because of the gradual introduction of electrical energy, there is no such marked reflex action of the heat-regulating mechanism as with external forms of heating and the placing of metal electrodes directly over the heated parts also prevents appreciable cooling by evaporation. Diathermy enables penetrating heating in a host of chronic inflammatory conditions where the pathological changes are located in the deeper parts. Maximum heating will always be generated at the site of greatest current density and this as a rule occurs near the electrodes and is proportionately less in the depth. The old notion that greatest heat effect in diathermy takes place in the center between the electrodes has long been disproven.

Short wave and ultra-short wave diathermy is a recent method of heating in which the body or a part of it is placed in a "condenser field" consisting of metal plates separated from the skin by an insulating layer of air, rubber or glass. These electrodes are charged by oscillations at radio frequency and it has been shown that there is more heat production in the depth by this method. As with every new method, commercialized propaganda makes many unwarranted claims for short wave diathermy, while its appli-

cation is undoubtedly simpler, the control of dosage is crude while the new technic and appliances and the lack of standardization of its apparatus rather increase the potentialities of accidents. No convincing proof has been brought yet that the clinical results produced are different from those of conventional diathermy.

For general body heating any of the enumerated methods may serve. Hot baths and electric light cabinets have been in use for some time for milder degrees of general heating. The modern interest in artificial fever led to the development of efficient general thermal methods. Physical agents have the advantage over the other fever methods in that they are always available, that the febrile reaction is under complete control and that the procedure is sterile. Fairly uniform results have been achieved by different methods, such as hot baths, hot vapor, electric blankets, hot air or infrared cabinets, general diathermy, and short wave diathermy. In these procedures, heat energy sufficient to overcome the heat-regulating mechanism of the body is employed while suitable insulation prevents heat loss by evaporation.

Therapeutic Uses

Thermal measures in the treatment of chronic diseases are employed either for treating the causative factor or for relieving the symptoms or sequelae. In many conditions, maximum benefit will only ensue if heat is combined with other physical measures. It is also evident that in the majority of cases physical therapy is only part of the treatment and supports rather than replaces other indicated measures.

The most important group among chronic diseases in which thermal measures form an indispensable part of treatment are chronic arthritis and rheumatoid conditions. "Rheumatic exudations are smouldering foci of disease, and heat, properly applied, often affects their absorption."⁴

Heat therapy in chronic arthritis is applied from two distinct angles. General or systemic heating is part of a "constitutional" therapy. By stimulating general circulation and increasing body metabolism it ameliorates the arthritic diathesis

and though local changes are only indirectly effected, in many instances following general heat-treatment there is a decrease of pain and swelling in all affected parts. Local heat-treatment has as its object the increase of local blood and lymph circulation and local tissue metabolism, the promotion of resorption and restoration of function. An even more important effect of suitable local thermal application is the relief of pain, the symptom which is the most bothersome and most depressing, next to stiffness and limitation of motion. In selecting thermal measures the type of arthritis and the constitution of the patient has to be taken into consideration. Generally speaking, robust patients of the osteoarthritic type respond well to both local and general heating while in the rheumatoid type of arthritis and in asthenic patients, vigorous heat measures often prove exhausting.

The simplest and most easily available thermal measure for general treatment of chronic arthritis is the hot bath. It may be used in the home at a temperature from 96 to 102° F. two to three times a week from five minutes to half an hour. A series of hot baths, alternated with or followed by suitable local treatment, is usually the backbone of physical treatment of chronic arthritis in health resorts. In physicians' offices, light baths from high wattage incandescent lamps and, in institutions, electric light cabinet baths prove useful. Hyperpyrexia by various methods has been extensively employed in recent years, in the majority of cases of rheumatoid arthritis it has not given encouraging results.

Local heating in chronic arthritis is perhaps the most dependable standby. For fairly efficient routine treatment in the home and in the office, infrared and luminous heat reflectors have largely replaced cumbersome "baking" boxes. Diathermy is of specific value in osteoarthritis localized to one or two large joints or to the spine, also in the frequent bilateral knee involvement in middle-aged women. In rheumatoid arthritis diathermy has only a limited value.

In non-articular manifestations of the rheumatic syndrome, characterized by chronic inflammatory connective tissue changes in muscles, tendons, bursae and

nerve sheaths—collectively designated as fibrositis—the same principles of thermal therapy apply. Possible foci of infection must be attacked, simultaneously, mild general heating for the increase of elimination and the raising of general metabolism may be employed while in all cases local heating serves for relief of pain and resorption of inflammatory thickening. This is the scheme of effective treatment of myositis, bursitis, tenosynovitis, and many forms of neuritis. Additional local mechanical measures are at times indispensable but give full benefit only when preceded by heat.

Gonorrheal infection, both acute and chronic, has proven to be perhaps the most successful object of thermal therapy, especially since the advent of hyperpyrexia. Local diathermy applied, as a rule, to the focus of gonorrheal infection, the cervix, urethra, prostate or seminal vesicles, at other times to the secondarily affected joints, produces good results in a fairly large percentage of cases. By hyperpyrexia, practically all cases of gonorrheal arthritis which are resistant to focal and local diathermy can be cleared up. Bierman and Horowitz⁵ have shown that the elevation of systemic temperature to 105–106°, combined with raising the pelvic temperature to 110–112°, gives brilliant results in gonorrheal infections of the pelvis. By determining the thermal death time of gonorrheal strains in the individual the ideal of a single fever treatment of sufficient length is attempted, resulting in a bacteriological cure and an immediate subsidence of all clinical symptoms.

Fever therapy of neurosyphilis and possibly of early syphilis has opened up an important new field. In general paresis, tabes and taboparesis and central nervous system syphilis results by physical fever methods similar or better than those with malarial inoculations are on record. Suggestive evidence is offered by Simpson⁶ that in early syphilis and resistant seropositive syphilis, combined fever-chemotherapy gives superior results. There are reports of similar findings in other late manifestations of syphilis, notably ocular complications. Encouraging results have been shown also in early cases of multiple sclerosis.

In chronic inflammations of the organs of the abdomen, heat therapy, especially

in the form of diathermy has become a recognized standby of treatment. Chronic inflammations of the gall-bladder and ducts and of the female organs, peritoneal adhesions following gastric and intestinal conditions or operations, strictures of the rectum, have all proved grateful objects for treatment by diathermy. The antispasmodic action of deep heating has given good clinical results in spastic conditions of the stomach, gall-bladder, intestines, and pelvis of the kidney, as well as in gastric neuroses and in congestive or inflammatory types of dysmenorrhea.

In chronic circulatory disorders there is a large field for thermal therapy. Cardiac diathermy enhances the tone of the heart muscle, improves the subjective signs of its vasomotor disturbances and thus offers valuable aid in treating chronic coronary disease. In essential hypertension autocondensation, a form of general high frequency treatment has proven useful but exerts no specific effects. In peripheral circulatory disturbances of the spastic type, such as Raynaud's disease and intermittent claudication, moderate local heating by whirlpool baths or by diathermy, often gives marked symptomatic relief. The same treatment is useful in early stages of arteriosclerosis and thromboangitis obliterans, in advanced cases it is better to employ only mild external heating from radiant sources kept around 94° F, regulated according to individual tolerance and applied practically continuously.

One could go on enumerating the therapeutic uses of heating measures in chronic disease occurring in practically every part of the body. It is a fact that thermal therapy has become the most important routine in treating chronic inflammatory conditions, when the natural forces of resolution appear to be lagging.

Summary

- 1 In the treatment of chronic disease by physical measures, heat is the most important single agent.

- 2 The extent of physical and physiological effects of thermal measures depends on their form and technic of application.

- 3 The therapeutic effects of heating are based upon its physiological action on ac-

celerating circulation, increasing metabolism, allaying sensory and motor nerve irritation, and affecting heat sensitive bacteria

4 The largest sphere of usefulness of heat therapy is in promoting resolution

in chronic inflammatory conditions. Fever therapy by thermal measures is of specific value in gonorrheal infections resisting ordinary treatment and in neurosyphilis

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References

- 1 Lewis, Thomas *The Bloodvessels of the Human Skin and Their Responses*, Shaw & Co. London, 1927
- 2 Bazett, H. C. *The Physiological Basis for the Use of Heat* Principles of Phys Therapy, Prior & Co., Hagerstown, Vol. Ch 4, p 24, 1932
- 3 Heoch, Slocumb, and Popp *JAMA*, 104 1779, 1935

- 4 Fox, Fortescue *Arch Med Hydol*, p. 278 August, 1927
- 5 Bierman, William and Horowitz, E. A. *JAMA*, 104 1797, 1935
- 6 Simpson, Walter M. Artificial Fever Therapy of Syphilis. Fifth Annual Fever Conference, Dayton, May 3, 1935

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, MD, DR PH, New York City

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Tamed

I would not like to convey the impression that psychotherapy in the transition cases is always an easy work. But sometimes we encounter fewer obstacles and our road is smooth.

The following case was successful from the beginning.

A girl of twenty-three suffered from a combination of psychoneurosis and a mild form of manic depressive psychosis. From her first steps in babyhood she remembered her father and mother quarreling and fighting. Each time they separated the child felt a great relief and the final parting was a natural outcome of a life full of ugly feuds. The father drank heavily and spent outside all the money he earned. The mother was an habitual complainer and nagger who could not get along with anybody. Our patient went to live with her grandmother, a widow with a small, but sufficient income.

Marital, parental conflicts always leave some mental scars in children, often causing maladjustment or definite mental disorder. The effect upon this girl of the parents' ceaseless enmity and war was particularly bad. To that was added the humiliating fact that her face was covered with acne.

Acne and superfluous facial hair in young women, acne and falling hair in young men are great sources of irritation especially in those who are unable to accept their fate calmly and cannot be resigned to it. In abnormal individuals those conditions are fuel to a vivid fire and make the victims suffer intensely.

Our patient, when first seen, was like a wild animal. Although she had come to the clinic alone, she didn't care about anything the doctor said to her. She looked away from his face and followed her own thoughts. She cried continuously and talked loud and angrily, enumerating her misfortunes. Her hair was dishevelled, her dress unclean and neglectfully slipped on, her shoes unlaced, her entire appearance untidy. Her general odor betrayed that her body had forgotten the use of water. Any remark was met with a quick and aggressive volley of words aimed at disarming any reply. She proclaimed her situation as hopeless and there was no use in trying to improve it. Nobody was interested in her, everybody despised her. She had an immediate objection to anything that contained a praise or a hint to a possible future improvement. To call her a smart or intelligent girl was a daring and almost dangerous action.

And yet there was a moment when she lifted her head and a little later a second in which she had a fleeting smile. That happened when a sensitive cord was stricken, when the "eternal feminine" ambivalence, of which even she had a spark left, was touched. Something or other was said about the possibility of her being good looking if she desired it, or something similar.

Then she began to listen more than she talked. She seemed surprised and partly convinced. So there was a person in this wide world who had some real sympathy

for her. She was no longer beaten and hounded, whether in reality or in her imagination.

Soon she was absorbed in my talk and later, when entirely subdued, she was asked about her childhood and her past in general and she answered in a rational way.

At the end of the first consultation she was conquered. She smiled and said "Gee, I feel better already."

When she came again a list of instructions was given to her concerning food, sleep, bath, walk outdoors, and her acne.

Then a long interval was left. Her next

consultation was three weeks later.

The change was manifest. Her hair was combed, her clothes, though poor, were brushed and properly buttoned, her shoes were well-laced and shined. She was quiet and met the doctor's glance frankly. Her acne had greatly improved.

She said "Everybody is telling me that I am much better and I feel it myself."

She continued to improve and regained her position in life. When I learned, within a few weeks, that she had gone, for the first time, to a dance, I regarded her as cured.

Doubtful Heredity

Wherever there is a psychopath in a family—and how many families, alas, are free from them—every close relative expects some mental disturbance. The physician must do his best to lay this ghost.

A young student began his story by saying "My mother's brother died from insanity and, therefore, it is self-understood that I too must be mentally ill."

At first I tried to find out all about his uncle's illness.

He answered my questions with precision and went into all the details. It seems that the old man, who had always been the family tyrant, toward the end of his life, had put many objects aside to be "buried with him" and also desired some of his relatives, including the present patient, to accompany him into "the other world." Whether he had heard of the ancient Egyptians or not, like them he needed his "ushabt" or slaves so that there be no break in ministering to his wants after death. And his heavy ghostly paw was still weighing on his nephew's shoulder and in his mind in the form of the fear of a so-called heredity.

The young man looked around in the office and everything frightened him.

"What is behind those velvet curtains?"

he asked.

At the second visit a book on neurology, out of alignment on the shelf, stared at him so with its large gilt lettering and he remarked that it had been there, the first time, at exactly the same place.

He kept on repeating that he was doomed and he did not know why he came.

But he was extremely surprised to hear that the facts of heredity were not at all sure, that in science we judge by actual finding and not by mere theory, that real scientists mix some skepticism in all their knowledge and that the more one knows the less certain he is. And he appeared shocked when told that to accept heredity as a certainty in an individual case amounted to superstition.

"Doctor!" he exclaimed.

"Yes, sir, a scientific superstition."

Moreover, his own parents were well and so were his brother and sister, he said after a silence.

The third time he left bewildered. But the results were good and quicker than expected. Within a few days he returned beaming and genial and assured the doctor that now he was entirely cured. He had finally corrected his error that some sort of insanity must fatally come.

Superior or Inferior?

A successful sales agent felt "his decline" coming. He was suffering more and more from what he called "an inferiority complex." He could not approach people with his usual *aplomb*. The truth was, another traveling salesman with the same firm was doing better than our patient.

Upon further analysis it became evident that his inferiority complex was not at all a sign of true inferiority, but, on the contrary, he was superior to the average people of his kind and, what is more, he was perfectly aware of it. The trouble was, he

did not dare to appear as he really was, to show his qualities, for fear of ridicule. He avoided making use of his originality because his colleagues would laugh at him. Therefore, he was not giving, lately, the best in him and, naturally, he was losing ground and falling behind.

As soon as he understood this situation he changed his point of view and discontinued the consultations. When met later he said "I was cured within a short time, I went out and worked and did well."

THE MEDICAL WITNESS

HON MEIER STEINBRINK, *New York City*

Justice of the Supreme Court of the State of New York

More than a century ago, a teacher at Columbia University defined medical jurisprudence "as that science which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice"

From time immemorial, courts of law have freely invoked the assistance of men skilled in subjects not of common knowledge. There is frequent allusion to the use of experts in the Roman law and likewise in the earlier common law reports. In certain urban communities of England, as early as the fourteenth century, special qualified jurors were called in when necessary to pass on questions requiring peculiar skill. In time, skilled persons were summoned to the advice of the court. Originally the jury proceeded to a verdict without the benefit of witnesses. They simply went after facts in their own way. It was not until the middle of the fifteenth century that the practice of examining witnesses became well-settled and it was not until some time later that compulsory process was made available. One of the rules of evidence hammered out of the early trials was that the testimony of a witness shall be limited to facts, not to opinions or conclusions from facts. It was for the jury to draw conclusions from the facts presented. But as this rule took shape an exception was made in the case of experts who were permitted to express their opinions. There is reference in the English reports to medical testimony as early as 1620.

In the case of *Alsop v Bowtrell* (Crow Jac 541) certain physicians testified in a case involving the legitimacy of a child that it might well be that a woman bore a child forty weeks and nine days after her husband's death and yet be his child, for the birth might be delayed by ill-usage and lack of strength.

In 1665, in the *Witches* case, a physi-

cian was of the opinion that the accused were witches, and elaborated his opinion by an explanation of the fits to which they were subject.

Rex v Pembroke was tried in 1678. Pembroke was charged with murder and there was some question as to the real cause of the deceased's death. Physicians called by both sides testified both as to the causes of certain symptoms observed upon an autopsy they had seen, and as to the general proposition whether a man can die of wounds without fever.

Another case reported the following year was *Rex v Greene*. There a physician called for the prosecution testified that the deceased could not have died from certain wounds upon his body as there was no evidence of blood and therefore that he must have died of strangulation.

In 1699, in *Spencer Cowper's* case, the question was whether the deceased had been drowned. Certain surgeons had testified that they had examined the body and found no water in it, so that it must have been dead when it entered the water.

From this small beginning, the participation of doctors in the administration of justice has grown to a point where it is almost unlimited.

While this graduate fortnight of yours is devoted to the subject of trauma, occupational diseases, and hazards, yet this by no means marks the bounds by which you function in the court room. There are few cases in which we do not in some form or other turn to the medical witness. Criminal cases innumerable flock to mind—murder, poisoning, drowning, abortion.

From the most recent compilations of the commission on the administration of justice, we learn that no less than seventy-five per cent of the cases tried in the Supreme Court of this state involve injuries to persons claimed to have been

Address delivered before the Medical Society of the County of New York, October 26, 1936

eghlytly inflicted In the proof of such cases, medical testimony is rarely omitted To these should be added numerous cases in which injuries were claimed to have been intentionally inflicted

In matrimonial actions, the services of our profession are frequently used to assist the court in passing on such questions as the existence of disease and mental disorder in one of the parties to the marriage either before or during marriage Also whether a party to the marriage is sexually impotent or sterile

Your services are likewise freely used in cases involving questioned paternity which may arise in filiation proceedings, actions for divorce, actions for criminal assault, and the like

Malpractice cases are wholly dependent on medical proof

In will contests and in incompetency proceedings, we turn unhesitatingly to you for guidance and for aid A large bulk of the proof in workmen's compensation proceedings is medical

It can thus be seen that in the greater number of cases coming before the court, medical testimony must of necessity play a dominant and often a decisive role It is for that reason that our method of eliciting medical testimony must be subjected to the closest scrutiny and any defect, no matter how slight, be exposed and, by cooperative action between your profession and mine, corrected

Medicine is a science wherein divided respected opinion is not uncommon We dare not hope for infallibility in medical experts—at least not until every diagnosis is confirmed by subsequent developments or by autopsies The layman's tendency, therefore, to place more credence in tangible facts than in opinions is not difficult to understand Nor can we fail to appreciate his suspicion of divided expert opinion

These are the conditions which face the medical expert witness at the very outset and because of them he must bend every effort towards the discharge of his duties in a manner that will reflect credit on himself and the great profession which he represents He should never forget that his testimony is given to instruct and inform the court and jury with regard to some vital point in issue, and it is no

less important that *he* approach the case wholly uncommitted in opinion, than that the jurors should Any individual who contributes even in the slightest to a relaxation of public confidence in the administration of justice commits a serious transgression against society A physician who, under the impetus of a more or less substantial retainer refuses to abide by the rules laid down for us by the highest courts, cannot avoid the realization that his conduct inflicts grave harm, not alone upon his profession, but upon one of the most vital forces that make for good government—the true administration of justice Perjury is a crime, but it is no less wrong for a physician to exaggerate or minimize symptoms and conditions described, to wilfully relate a partial truth which prevents an accurate appraisal by the jury or to confuse the issue by introducing factors which have no scientific relevance to the subject litigated As a member of a learned and public calling, he must be governed by rules which transcend the distinction between legal and moral wrongs Such is the responsibility of the medical witness

Under our present system, each party to a law suit calls witnesses to prove or disprove some issue in the case The rules governing the subjects on which experts may testify and prescribing the qualifications of experts are matters of law, but whether a witness offered as an expert has those qualifications is a question of fact to be decided by the judge The trial judge enjoys considerable latitude in the exercise of his judgment and his ruling is conclusive unless manifestly erroneous as a matter of law The mere fact that the witness is a physician does not in and of itself qualify him to express an opinion on some highly specialized branch of medicine By study and experience he must have acquired peculiar skill in the subject on which he is called to testify When his qualifications are established, he is questioned by the counsel who retained him Unless he can testify as to the facts upon the basis of actual observation, he is generally asked a hypothetical question, in which is incorporated at great length all of the relevant facts in evidence After expressing his opinion, which is rarely if ever unsatisfac-

tory to the questioner and his client, he is turned over to the opposite side for cross-examination. The function of the cross-examiner is to elicit from the witness a modification of the opinion expressed on direct examination, or to discredit the direct testimony.

In a typical case, physicians are arrayed on opposite sides of the law suit. Each is given the same set of facts and each is asked to express an opinion. Although the physicians may command equal eminence in their profession, their opinions are too often wholly irreconcilable with the anomalous result that the jury is required to reach a verdict where the physicians disagree. The result is obviously anomalous because the jury, consisting of men possessing no peculiar learning or skill in medicine, are left to decide causes in which the experts are called to aid them. This condition has met with almost universal condemnation and, in all frankness, lends considerable support to the general disrepute in which experts are held and their testimony disparaged.

Justice Curtiss, of the United States Supreme Court, observed in one of his opinions:

I believe the experience of all concerned in the administration of justice tends to the conclusion that this species of evidence is less satisfactory than any other, and it is a common remark that when there is any room for a difference of opinion experts in about equal numbers will generally be found testifying on each side. (*Wilkinson v. Greeley*, 1 Curtis (U.S.) 439, Fed. Cases 17,672.)

Justice Miller, of the same court, said:

My own experience, both in the local courts and in the Supreme Court of the United States, is that whenever the matter in contest involves an immense sum in value and when the question turns mainly on an opinion of experts, there is no difficulty in introducing any amount of them on either side. (*Middling Purifier Co. v. Christian*, 4 Dill, 448, at 459.)

In the famous trial of Palmer in England in 1856 for the murder of Cook by poisoning, more than a dozen medical men and chemists testified with great positiveness but in direct opposition to each other. Lord Chief Justice Campbell, in charging the jury said:

With regard to the medical witnesses, I must observe that, although there were among them gentlemen of high honor, consummate integrity and profound scientific knowledge, who came here with a sincere wish to speak the truth, there were also gentlemen whose object was to secure an acquittal of the prisoner. It is, in my opinion, indispensable to the administration of justice, that a witness should not be turned into an advocate nor an advocate into a witness. (11 Harv. Law Review, 170.)

Since expert testimony, as an aid to the jury, is indispensable, we must pause to inquire into the causes that produce the mischief and to take cooperative steps in broad comprehensive reform. A quarter of a century ago a committee on the regulation of the introduction of medical expert testimony submitted a report to the New York State Bar Association, in which they classified the existing evils as follows:

First—Want of satisfactory standards of expertness with its result of inviting the testimony of charlatans.

Second—The partisan conflicting and hence unreliable character of the evidence often given by so-called expert witnesses.

Third—The prolongation of trials and consequent increase of expense on account of the number of witnesses.

Fourth—The confusing effect on juries of the contradictory testimony of expert witnesses of apparently equal standing, having the same opportunity for acquiring knowledge of the facts on which their conflicting opinions are predicated.

Fifth—The lack of scruple upon the part of some members of the Bar in countenancing the hiring by their clients of unprincipled self-styled experts to support causes by specious and untruthful testimony.

Sixth—An unfortunate tendency upon the part of some trial judges to permit incompetent so-called medical experts to testify to opinions predicated upon widely unrelated facts and under oath to express views which are but the speculative vagaries of ill-formed minds.

To these may be added contingent fee payment to the expert, the fact that wealthy litigants are able to overawe a jury by a mass of expert testimony which the less fortunate litigant is unable to match, and the requirement of the hypothetical question.

Let us consider for a moment legal insanity as a defense in criminal law. Expert testimony in this connection has very often become a shameless mockery. Numerous specialists are called, large sums of money expended, trials protracted sometimes for weeks, on a simple issue as to whether the accused was insane at the time of the commission of the act. The defense is very often employed when there is no other avenue of escape, and generally in a case where no one would have remotely suspected the accused of insanity were it not for the exigencies of the case.

Psychiatrists, alienists, and other specialists in mental diseases, eminent in their fields and respected in the community, do not hesitate to sell themselves, even if, in doing so, a dangerous criminal succeeds in escaping the penalty which the law prescribes.

The basic evil is the personnel of the witnesses and the attorneys who cooperate in the deception and, as I touched on a short while ago, the anomaly of setting expert against expert, and thereby negating the testimony of all.

The hypothetical question has long been the subject of considerable comment. This form of question assumes the existence of facts recited by the questioning counsel. The facts assumed are only those which the court deems fairly established by the proof, and upon the basis of them the expert is asked whether he is able to form an opinion. If he is, he is asked to state his opinion. While the hypothetical question appears to be a perfectly logical and perhaps necessary means of extracting an expert opinion, unfortunately it often leads to a confusion rather than to a clarification of the issues. While the scope of the question may be kept within bounds, it is often exceedingly difficult for the court to confine the questions to those facts which the jury ought reasonably to find. If the jury fails to find some pertinent fact embodied in the question, there remains no force to the opinion, and the jury, left to its own resources, decides the case in complete disregard of the medical opinion. After a long, involved, and tedious hypothetical question, the answer is invariably an opinion favorable to the party by whom the expert is retained. There are

some who would do away with this form of question. Prof Wigmore said in discussing the subject: "The hypothetical question, misused by the clumsy and abused by the clever, has in practice led to an intolerable obstruction of truth."

A contested will case was recently tried in this state, in which a hypothetical question was propounded to three experts for each side. The two questions together consisted of six thousand words and occupied more than four hours in the reading. The effect of such questions on the jury is readily imagined. The difficulty is that while this form of question is subject to abuse and does in fact often retard the search for truth, it is still the only method by which the jury can avoid abdication of its powers as fact finders to witnesses who, though experts in their calling, are nevertheless no more qualified to find facts than the jury itself. If the expert were permitted to express his general views without indicating the facts upon which they are based, he would be usurping the function of the jury for, to accept the opinion, the jury must accept as found all the facts underlying it.

The solution, if any, does not require a complete rooting out of this type of question, but rests rather with an alert and well-equipped bench and bar whose duty it is to avoid and prevent dishonest and ineptly worded hypothetical questions.

The fact that experts are retained by the parties to the litigation and are compensated by them is one of the main sources of difficulty. Testimony under such circumstances without a taint of prejudice is a result devoutly to be wished but rarely achieved. The position of the expert is that really of participant in the law suit. That he so regards himself to a degree at least and that, in consequence, controversial feelings are aroused, is not unexpected. Some years ago, Dr. Edward P. Sloan, president of the Illinois State Board of Health, and president of the Illinois State Medical Society, made the following statement:

It is needless to say that any diagnostician can make a diagnosis with some certainty when aided by his regular assistants. Only by having the patient in a favorable environment and under conditions that are favorable to good work, and with sufficient assistance, can any diagnostician whose

sincere object is to arrive at the actual facts, make a diagnosis and give an opinion with regard to mental and physical states in obscure or disputed cases that is worthy of confidence or that should be given place in any proper legal proceeding. Without a correct diagnosis the medical expert is a false witness.

But it is unfortunately true that under present conditions in American courts, these conditions of securing correct and impartial judgments by the medical expert witnesses are sadly lacking. Approaching the subject from the partisan standpoint with a necessarily biased mind which the medical expert must do, precludes the formation of a correct judicial opinion. (Si-De-Ka Quarterly, April 1923.)

The vice has become specialized in the sense that daily in our courts we find physicians invariably appearing either on the plaintiff's side alone or on the defendant's side alone. They are labelled "plaintiff's expert" and "defendant's expert." The "plaintiff's expert" magnifies the injuries and symptoms, while the "defendant's expert" dismisses as negligible. It is not uncommon for doctors to accept general retainers from railroad companies and insurance companies and from lawyers whose practice it is to represent plaintiffs in negligence actions. No matter how honest the individual, the danger of having his judgment colored by the size of the retainer and his mode of thinking influenced by the side which he invariably takes, is manifest. This condition can be corrected in part at least by the exposition of a clear definition of the moral standards of a physician testifying under oath in the court room, by insistence that he state his opinions fairly and fully, without bias and without regard to the side that calls him, by taking a forceful position that any deviation from this standard involves a serious breach in professional ethics, to be dealt with as such.

I have briefly touched on some of the conditions which bring disrepute to your profession and on mine. Remedial measures have been suggested. Some are of the belief that the chief fault lies with the caliber of lawyers and doctors who collaborate in the court room. Undoubtedly the vices today inherent in expert medical testimony will vanish when all of the participants are beyond reproach. While I am certain that neither the medical

societies nor the bar associations will relax their vigilance in purging from the ranks those who bring discredit on the professions which they represent, yet the difficulties which beset their paths are as familiar to you as they are to me, and short of the millennium a complete purge is too much to expect.

Recognizing that fact, we must bestir ourselves rather to attack and revise the system that permits these abuses to continue. Some have suggested a subsidiary jury of experts. A reform of this nature would require a separate jury for each specialized field of medicine since the opinion of an alienist would have little value as to the existence of some disease unconnected with his specialty, and so on down the line. This will result in numerous subsidiary juries with the additional expense involved and with the difficulties attending their selection.

Furthermore, there is always the possibility that experts may disagree among themselves, thus weakening the force of their opinions. Finally, there is a serious question whether parties can be compelled to relinquish their right to adduce whatever proof they deem essential to their case.

A more practical remedy, in my opinion, is that embodied in the report of the Commission on the Administration of Justice in New York State, in the form of proposed legislation. It reads as follows:

Whenever it shall be made to appear in an action pending before the court, that expert evidence is, or will be required, the court may on motion of any party, or on its own motion, appoint one or more experts to investigate and testify at the trial of the action relative to the matter or matters as to which such expert evidence is or will be required.

The court shall fix the compensation of such expert or experts and shall determine the proportion in which the compensation shall be paid by the parties. The amount so paid by any party shall be taxed and allowed in like manner as other costs in the event that he should become entitled to costs in the action.

An expert so appointed shall file a report with the court, and furnish a copy to each of the parties but the report shall not be admissible in evidence.

The expert may be called by the court, or

may be called and examined by any party to the action, and he shall be subject to examination and objection as to his competence and qualification as an expert and as to his bias and may be cross-examined by the several parties to the action in such order as the court may direct.

When such witness is called and examined by the court, the several parties shall have the same right to object to the questions asked and the evidence adduced as though such witness were called and examined by an adverse party.

The court may at any time before the trial or during the trial limit the number of expert witnesses to be called by any party.

Similar provisions for expert testimony have been adopted in England and in California, and are under consideration in several other states.

The best feature of the proposed reform will be its tendency to avoid partisan conflicts now common among experts, and perhaps encourage reputable physicians to await invitation by the court rather than to accept private retainers. But no amount of legislation, no matter how nobly inspired, can accomplish its purpose without the whole-hearted cooperation of our professions, unless all our resources are brought to bear on the problem, unless we accept the responsibility that is plainly ours to extirpate from our midst the subservient forces much as you surgeons would sever the cancerous tissue from the healthy.

I have spoken of your duty. Now a word with regard to your rights. Like any other person subject to the jurisdiction of the court, a physician must respond to a subpoena. He is amenable to this compulsory process regardless of whether he is called to testify as to facts observed or to offer an expert opinion. If he is called in the former capacity, he is not entitled to compensation beyond the statutory fee of any witness. This rule is founded on the theory that in the interests of justice, everyone is under a public duty to testify as to facts within his personal knowledge. This rule, however, does not apply, at least not in the State of New York, to persons giving expert testimony. They are entitled to compensation on the theory that their expert technical knowledge, obtained after years of close application to some special subject, constitutes their stock in trade which they

should not be required to give away for the asking. While this is the rule in New York State, the weight of authority in other states inclines to the view that an expert witness is not entitled to demand extra compensation before testifying, although his testimony may have required professional study, learning or skill. In those states, the courts take the view that the social interest which imposes on all citizens the obligation to testify in aid of the ascertainment of the truth, transcends the inconvenience to which experts are subject. Valid arguments may be presented on both sides of this issue, but my own opinion is that an expert should no more be required to endow benefits on litigants without compensation than any business man should be required to relinquish his physical assets without being paid therefor. But even in this state the right to compensation is waived unless claim for it is made before the expert testimony is given.

Before closing, may I presume upon your attention for a few moments longer to suggest the conduct by which, in my opinion, you should be governed on the witness stand. Before coming into court, insist upon the fullest details concerning the subject upon which you are called to testify. Refresh your recollection concerning names, dates, and places that may be pertinent. Bring with you whatever memoranda you may have to fortify your memory. Refamiliarize yourself with the general subject and come prepared to submit to a searching cross-examination. In delivering your testimony, express only those opinions which you honestly believe and which you are prepared to defend to the last ditch. Do not play the part of an advocate. Forget for the time being the party by whom you were called and make every effort to rid yourself of any bias or prejudice that may unconsciously have crept into your thinking. Weigh the questions put to you with care and do not answer until you are certain that you understand them. Do not permit yourself to become embroiled in a dispute with the examining attorney nor to become flustered by the tactics employed by him, for this very often is the very result he is seeking to achieve when no other method of attack is available.

Act modestly and speak in a conversational tone, addressing your remarks so that every member of the jury can hear what you have to say. Do not try to overawe the jury with your importance. Rather, let the jury be impressed by the quality of your testimony and the manner in which it is delivered. Do not indulge in pedantry. Do not speak down to the jury nor over their heads.

Consider what is almost insistence of medical witnesses in indulging in the use of such terms as hemiplegia or aneurism, which jurors do not understand and frequently judges do not understand, and how much further the doctor would ingratiate himself with court and jury if, when he feels that he must use these

terms, he were to promptly translate them into understandable English so that a jury would know that he was speaking either of paralysis of one side of the body or a tumor formed by an artery.

I close this discussion by repeating the words uttered in this room in 1928 by the then Chief Judge of the New York Court of Appeals, now Associate Justice Cardozo of the United States Supreme Court.

Some appropriate committee there should be in the bar association on the one hand and this Academy on the other, if none exists already, whereby the resources of the two professions can be pooled in matters such as this, where society has so much to gain from cooperative endeavor.

DOCTORS ONLY MAY "ELECTROCUTE" HAIR

The removal of superfluous hair by electrolysis treatments in beauty parlors by any one other than licensed physicians was forbidden on Dec 18 in a decision by the Bronx Court of Special Sessions.

As a result, the State Board of Medical Examiners and the office of John J. Bennett, Jr., State Attorney General, are to join in a campaign to stop the electrolysis treatments in hundreds of beauty parlors in New York City.

The decision was against Mary Lehrman of 2,800 Bronx Park East, a beauty parlor operator, who was arrested May 20, 1935, on the complaint of investigators operating under the direction of Dr. Harold Rypins, secretary of the State Board of Medical Examiners. She was accused of practicing medicine without a license. She was tried Oct 30. The court's decision was divided, Justices John V. Flood and Alfred J. Hoffman finding her guilty and Justice Lawrence T. Gressner dissenting. Sentence is to be imposed Jan. 22.

Sol Ullman, Assistant Attorney General, who conducted the prosecution, said the conviction was the first of its kind. Commenting on the electrolysis treatments in

beauty parlors, he characterized superfluous hair conditions as the result of a disease known as "hypertrichosis, which also constitutes a deformity."

"Electrolysis operators so treating a disease, deformity and physical condition, have sprung up like mushrooms overnight," Mr. Ullman said. "Without being required to have any proper educational qualifications, they are admitted to the so-called schools of electrolysis over which the Regents of the State have no jurisdiction or supervision. These schools give their students a brief course of instruction."

"Complaints have been made as to the operations of these electrolysis operators on the ground they are engaged in the practice of medicine and have treated the public for superfluous hair conditions, with the consequence that in some cases the appearance of those treated has been permanently marred and facial disfigurement for life has resulted."

Mr. Ullman said the special investigator went to the defendant's establishment and received two electrolysis treatments on the upper lip for the removal of superfluous hair. A charge of \$3 an hour was made.

PAN AMERICAN MEDICAL ASSOCIATION

The Pan American Medical Association announces that Temple University, at their Founders' Day exercises on February 15, will confer the honorary degree of Doctor

of Science on Dr. Charles Gordon Heyd, President of the American Medical Association and Dr. José Arcé, of Buenos Aires, in recognition of medical contributions.

NEW YORK STATE JOURNAL OF MEDICINE

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EDITORIALS

Are They Satisfied?

Friends of compulsory health insurance in this country usually attempt to allay the doubts of American physicians concerning its alleged benefits by citing the general satisfaction of British panel practitioners with the system. That such satisfaction is neither real nor general, is suggested by recent letters in the correspondence department of the *British Medical Journal*, reproduced in part in the *J.A.M.A.* Complaints are directed against the low level of both medical service and medical payment as contrasted to the high costs of the system.

English panel practice is supposed to represent compulsory health insurance at its best because of the participation of the British Medical Association in the planning and administration of the system. If so, the best is still apparently far from good. Dr F S Taylor-Thomas calls attention to the mechanization of practice resulting from the popular demand for medication and the lack of time for anything else. "Juvenis" confirms this with the statement that he is "convinced the majority of patients do not get full enough investigation." Other correspondents frankly state that "to pretend that panel and well-to-do private patients can be treated identically is to be an ostrich."

Critics of obligatory prepayment are generally agreed that a patient should pay something at the time of receiving service in order to preserve his respect for independence and prevent unwarranted demands on the physician. Thus one writer, "My surgery hours are cluttered up with people who certainly would not come so often or drink so much medicine if they had to pay even one penny a visit." And another, "If * * * people * * * had only to pay 3d to see the doctor it would cut down England's drug bill by half." Throughout the same theme—of hypochondria and excessive medication directly attributable to the destruction of individual responsibility and integrity by compulsory sickness insurance.

Other recurrent criticisms emphasize the lack of opportunity for careful diagnosis and individual research. "Juvenis," already quoted above, complains that he "cannot do otherwise than rush them through" and remembers "with dissatisfaction" resultant grave diagnostic errors. As Dr Taylor-Thomas observes, "* * * insurance committees do not encourage academic excursions by general practitioners."

It must not be assumed from the foregoing that the panel system has no de-

fenders in the English profession. The *JAMA* quotes a former secretary of the British Medical Association and a chairman of an insurance committee, both of whom praise the quality of the service rendered. On the whole, however, the views expressed by independent observers are highly critical and go far to demolish the legend of medical satisfaction that American advocates of compulsory health insurance have tried so hard to build up.

Greater Maternal Safety

Recent amendments to the State Sanitary Code providing for the licensing of all maternity hospitals and homes, no matter how small, will receive the general approval of the medical profession. The high puerperal morbidity and mortality rates in this country demand the most stringent precautions during pregnancy and parturition. Absence of governmental supervision and control conduce to dangerous laxity in institutions headed by untrained or irresponsible persons. The need to secure a license—and to adhere to certain standards in order to retain it—places a check upon carelessness, avarice, and ignorance.

The regulations imposed are simple and sensible. Only a licensed physician, nurse or midwife may obtain a license to conduct a maternity home. The number of patients must be limited according to available space and equipment, minimum nursing care must be provided.

In their provisions for delivery the amendments endorse the rules observed by all reliable obstetrical institutions. Delivery rooms are isolated from bed and general operating rooms, and the maternity service as a whole is housed separately from other departments. The requirements for sanitation, asepsis, and fire protection furnish the minimum protection that prospective mothers have a right to expect for themselves and their offspring.

One of the important reforms which the new amendments will effect encompasses the question of records. In many of the small unincorporated maternity homes in particular, accurate records are virtually unknown. This not only deprives the state of valuable statistical data but encourages negligent and even illegal practices.

The revised Sanitary Code is not to be interpreted, as some rural practitioners and patients may have feared, as discouraging or putting beyond the pale of the law the familial assistance on which many prospective mothers rely in remote sections. The acceptance of a relative by blood or marriage into one's home for purposes of maternity care does not constitute operation of a maternity hospital. Without imposing any hardship on honest institutions, the new amendments may be expected to drive inferior mushroom institutions out of a field in which they are a grave menace to infant and maternal health.

"Hospital News"—Our New Section

We have always felt that our journal should be as broad in scope as is necessary to serve the profession in all its fields of interest. To this end, there is initiated in this issue a section devoted to "Hospital News." The relationship which exists between the individual doctor and the hospital he serves is more or less that of a "family affair." The broadest aspect of the situation, namely, the attitude of the organized profession and that of the hospital associations toward each other will, it is hoped, be better served by the addition of this new section.

Many problems of this relationship remain unsolved, and this is in no small extent due to the failure to understand each other's problems. The hospital has become indispensable in the modern practice of medicine and the changes wrought as a result of this require an elucidation

and revaluation of the physician's status in this relatively new phase of medical practice. As "Hospital News" grows, it will endeavor to make itself a forum for an interchange of ideas between hospitals and the profession so that a clearer comprehension of their mutual views and a cordial relationship may be attained and sustained.

We Become Active

With all the activity on behalf of compulsory health insurance and socialized medicine we are well acquainted. Until recently organized medicine has contented itself with keeping its members informed of the existence of an insidious form of propaganda which was being "dished out" to the public. The propaganda stage, however, has passed, and the advocates of health insurance are about to attempt to force its enactment into law, even though the public has as yet not expressed itself on this question. The overwhelming majority of the last election is being interpreted by the propagandists as a blanket endorsement of all and every form of so-called social security.

But it is the profession—the doctors who treat the sick and who have thus far done a good job of it in this country—who best knows the manner in which medical care can be given to the public. Therefore we are going before the people with our side of this question. Our most fitted spokesmen will present our views. Commencing with our President, Dr. Floyd S. Winslow, the *JOURNAL* publishes his remarks (page 192) as well as the fine presentations of Dr. Charles Gordon Heyd and Mr. Dwight Anderson. These addresses should be studied by all of us and also brought to the attention of our patients, and to our representatives in Washington and at Albany, so that these may not be stampeded into legislation which will be gravely detrimental to the well-being and the health of our people.

CURRENT COMMENT

NAPOLEON ONCE WISELY REMARKED, "America is a fortunate country. She grows by the follies of our European nations."

A "FOLLY" CURRENT IN FRANCE NOW IS its social insurance legislation. We quote from the communication of the Paris correspondent to the *J.A.M.A.* published in its issue of January 2, 1937:

"*** The application of the social insurance law has already affected the practice of medicine seriously and imposed a heavy burden, which the profession has accepted in a most loyal manner. Confronted with the proposed modification of the law, the profession feels itself entitled to claim an application of the law which will permit a physician at least to earn a living, hence the authorities are requested to consider the present plight of the profession in France before raising the limit of obligatory insurance. No one can ignore the loss of time, the vexatious examinations, the abusive investigations to which a practitioner is subjected in connection with the medical control demanded by certain caisses or bureaus which pay the claims for illness of the insured. These disagreeable encounters between the medical inspectors of the caisses and the practitioners, often taking place in the presence of the patients and tending to cause them to lose confidence in their medical attendant, should in the future be avoided ***"

"BY KEEPING THEMSELVES BUSY with accident prevention, public health folk will stay out of the mischief of interference with private practice *** With its personnel and administrative pattern the public health service is in an excellent position to correct the physical hazards and personal habits that do so much to increase the accidental death and disability roster in this country ***"—William Alan Richardson made the above suggestion in the December issue of *Medical Economics*.

"WE HAVE THE QUACK social reformers who would manufacture billions of paper money and distribute it to everybody, starting with the most lazy and most shiftless of the population. We have the political demagogues who are proposing to shackle us with laws that purport to relieve people from all care about their own future, and to guarantee conditions of comfort and se-

curity, regardless of tax burden laid upon the thrifty and industrious

"Our real task in this country is to keep open the doors of opportunity, and to make new opportunities if older ones become obsolete. We can make the schools fit the conditions of life. The educators and teachers are increasingly alive to the inspiring rather than the humdrum aspects of pedagogy. They are trying to train our future workers to be strong and capable, to be community-minded, and to be patriotic in the best sense. We can go much farther than we have gone heretofore in extending those social services that improve the health of growing children. We can supply the underlying conditions that encourage thrift and saving, and thus limit the percentage of those who will have to be aided or pensioned at the public cost. We can maintain our free, self-respecting American society, without failing to care for those who, through the vicissitudes of life, are unable to care for themselves"—Albert Shaw wrote the above, among other things, in his column "The Progress of the World" in the *Review of Reviews* for January 1937

"THEY WERE ALWAYS NUMEROUS, but now their name is legion. All over the world thousands upon thousands of men and women pass their whole lives denouncing, instructing, commanding, cajoling, imploring their fellows"—Aldous Huxley speaks thusly of propagandists in a current issue of *Harper's*

"THE MESSAGE OF ORGANIZED MEDICINE should primarily be of such a character as to make health a topic of lively and enlightened interest to everyone. This is not to be accomplished by scaring people. What is needed is an expert portrayal, in appropriately dramatic manner, of the genuine truth about the marvelous accomplishments

of medicine, both in its science and in its art. Definite facts must be given to paint a truly attractive picture of the quality of medical service which these advances enable physicians to render to all who seek their counsel. All the various components of medical care—the work of the physician himself, hospitalization, nursing, laboratory work, radiology, etc.—all these should be properly dealt with in order that the ignorance and misinformation concerning them, which unfortunately exists even among the more intelligent classes, may be completely dissipated.

"The message of organized medicine must aim to improve the relationship between physician and patient if it is to be successful in weaning the public away from self-dosing and patent medicines *** The message of organized medicine must further tell the American people, in clear understandable language, why the American system of medicine must be preserved if the quality of service is to be kept up to its high standard of today. Yes, and the real truth about socialized medicine must be driven home to the public at large, so that this notorious poor-house system of medicine, which so dismally falls short of its vaunted objective, cannot gain a firm foothold in our land. State medicine must not come with its standardized impersonal production methods to sever the personal, confidential, and even sacred relationship which must exist between physician and patient in order to achieve the optimum results in treatment. Socialized medicine must not come to retard the progress of our scientific advancement in America. Medicine in our country must remain unshackled and free from the log-rolling and foot-balling and pork-barrel taint of grasping political systems ***"—"Will Organized Medicine Speak to the People?" is the title of an article written by Elmer H. Robst, published originally in the *Roche Review* for December 1936, from which we have quoted in part

A P L I

The Annual Meeting of the Associated Physicians of Long Island will be held at the St. John's Hospital, Brooklyn, January 30

From 10 30 a.m. to 1 00 p.m. operative clinics will be discussed by the surgical, obstetrical and gynecological staffs of the hospital. Members will be guests of the

hospital for luncheon at 1 30. At 2 30 a pathological conference will be held in the hospital museum. The scientific session will begin at 3 00. The dinner will be held in the Hotel Granada at 6 30. The speaker will be Mr. Howard Scott, Director-in-Chief, Technocracy, Inc., on "International Health in a Changing World"

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private" All communications must carry the writer's full name and address, which will be omitted on publication if desired Anonymous letters will be disregarded]

Researches in Blood Flow

35 East 84th Street
New York City

1035 North Calvert Street
Baltimore

o the Editor

After reading the paper by Thomas P. Sprunt in the issue of November 15, 1936, I came to the conclusion that doing research is just a waste of time. I marvel at the manner in which these modern writers and workers overlook and overcome scientific attempts that were published before their immediate period of activity.

I thought I had done some basic work on the volume and speed of the blood flow and blood pressure, and now I find that not a single one of my researches as published in *Pfluger's Archiv*, the *Quarterly Journal of Physiology*, and the *Journal of Physiology*, has been regarded sufficiently valuable to be cited. I notice, however, that many of my figures, etc., have been incorporated in this article without proper process of transfer.

Very truly yours,

R. BURTON-OPITZ

December 3, 1936

To the Editor

Many thanks for your letter of Dec 16th with the copy of Dr. Burton-Opitz' letter.

Every student of the circulation is familiar with Dr. Burton-Opitz' fundamental work in this field of physiology. It is a part of our basic knowledge.

The purpose of my brief paper was to "review certain recent additions" to our knowledge and there was no opportunity to present the development of the subject.

Dr. Burton-Opitz' figures on blood flow in different organs are copied in most textbooks of physiology. The author deeply regrets that they were not credited to him in this paper although, of course, anyone using the reference given would have found his name among the original sources.

Very truly yours,

THOMAS P. SPRUNT

Dec 22, 1936

HOBBIES AND MENTAL HEALTH

The possession of a hobby has come to be regarded as an almost essential ingredient of a healthy and well-balanced personality. When the monotonous routine of the daily grind irritates beyond endurance, and whenever one's family and friends are hopelessly misunderstanding, if a person has cultivated a keen interest in some activity, or in something aside from the occupation which gives him his daily bread, he will generally find that the pleasure derived from his hobby will compensate sufficiently for his financial and social frustrations, so that a complete breakdown is avoided, says David Ruslander, M.D., of the Buffalo State Hospital, in

Mental Hygiene News. The story is told of a young man who, while contemplating suicide, happened to think that his pet pigeons might be neglected, and we have his word for it that it was that thought that gave him the determination and courage to face his difficulties.

Where a mental disease has already developed, psychiatrists often utilize a hobby formerly possessed by the patient as a fulcrum to pry the patient away from his abnormal adjustment and with the indispensable help of the occupational therapist, the patient is won back to mental health.

The 441st regular meeting of The Society of Medical Jurisprudence was held at The New York Academy of Medicine, December 14.

An address on "Case Reports from the

New York City Medical Examiner's Office" (illustrated with lantern slides) was given by Robert C. Fisher, M.D., Assistant Medical Examiner, New York City, followed by discussion by members.

Addresses by the President of the Medical Society of the State of New York

Following his induction into office as President of the Medical Society of the State of New York, Dr Floyd S Winslow has delivered addresses before District Branches of the State Society, before several County Societies in the State and has appeared before the public as spokesman for the profession of the State both over the radio and in the press. Through the Committee on Medical Trends of the State Society, a number of these speeches have first appeared in publications other than the JOURNAL because that committee considered them of such vital import at the present time as to deserve a wider distribution to both the public and the medical profession than the JOURNAL could furnish. Certain of them have been collected for reproduction here in order that the entire membership of the Medical Society of the State of New York shall be able to enjoy their perusal and keep them for reference. We are certain that they represent accurately the thoughts and policies of organized medicine in New York State and it is our opinion that Dr Winslow's sayings merit a permanent place in the record of medicine's effort to supply the best possible medical service to the Community—EDITOR

WE DO NOT WANT SECURITY

The Doctor's Obligation

FLOYD S WINSLOW, M D,

President, Medical Society of the State of New York

It is the supreme obligation of the medical profession to provide the public with medical care of the highest possible quality, and to protect them from the results of inferior service.

Sometimes we get so close to the subject matter of our work, that we fail to see it in the true perspective. It is my purpose here to discuss the most important activities of the Medical Society of the State of New York, and show just how each of them fits into this definition. Each one, as we shall see, either promotes the health and well-being of the people by making our membership better qualified to serve their patients, or operates to the same end by opposing and resisting those forces which either would interfere with our competency, or substitute incompetency.

First in order, if not in importance, are the courses in graduate education, which are given as county medical society programs under the sponsorship of the society's committee on public health and medical education. This committee has assumed important responsibilities in the field of public

health, and with suitable sub-committees, is concerned with such matters as pneumonia control, cancer, syphilis, maternal welfare, child hygiene, and nursing education.

The point is made merely when it is stated, these activities increase our capacities. But not only do they do this. Through the cooperation which results from contacts with official and voluntary health agencies, these activities also increase the popular acceptance of our capacities.

It is not my intent here to labor the point, or to bore you with details of the work of the various committees. But in passing I should mention the committee on scientific work, in whose charge is the important task of arranging the scientific programs at the meeting of the state society, the public relations committee, whose chairman directs the activities of his group in such matters as the examination of school children and the problem of the care of the deaf and hard of hearing children of the state. It is clear how these matters fulfill our supreme obligation to provide the public with medical care of the highest possible

Delivered before the Sixth District Branch of the Medical Society of the State of New York, Ithaca, September 17, 1936

ality Two other standing committees remain to be examined These are the legislative and economics committees The former is active at all times to "spot" provisions in bills proposed to the legislature which may be damaging to the public because of the effect they have upon medical care Often these provisions are thoughtlessly inserted by their proponents who are ignorant of the effect of some minor provision in a law Inasmuch as there are 6,000 bills introduced in every session of the legislature, it is easy to see the need, in protecting the public against inferior medical care, for active effectual work on the part of this committee The economics committee easily fits into the latter section of our original definition, "to protect the public from the results of inferior service" We all know how ably this committee has presented the facts concerning compulsory health insurance, how in every foreign country where it has been tried, medical care has suffered deterioration. We need to be told these things over and over again The advocates of socialized medicine lure the profession with the siren song of bureaucratic jobs, assured income—security—false security We do not want to be secure. We want to remain insecure. We want to continue to be required to give our very best to every patient, or lose out in the gentlemanly competition which exists within our ranks This is an incentive that operates to our insecurity, but to the security of the patient. We prefer the discipline of private practice which keeps us on our toes, to an assured income under bureaucratic control where our highest ambition is more likely to be to keep ourselves solid with the politicians who have taken over the job of running our profession

I repeat, security for the doctor means insecurity for the patient

The state-wide attack on pneumonia which was instituted by the Medical Society of the State of New York last year, will be continued this season In cooperation with the State Health Department, and various other agencies such as the Commonwealth Fund, Rockefeller Institute for Medical Research, and the Metropolitan Life Insurance Company, plans have been crystallized for rendering serum available throughout the State, for the education of the medical profession and for the popular instruction of

the public It is hoped ultimately to reduce the mortality from this disease in New York State by three thousand lives per year In connection with this campaign, the committee on trends of the society has cooperated with all these agencies in the preparation of popular educational material, consisting of facts about pneumonia for editorial writers, radio talks, feature articles, and specific plans addressed to informing the public of these three facts.

First Medical handling of these cases is just as much an emergency as acute appendicitis,

Second Early recognition is of vital importance,

Third Proper nursing care is equally important.

This popular publicity has been prepared by the Public Relations Bureau of the Society, and will soon be ready for distribution throughout the State

During the winter it is likely that each county medical society will be requested to designate a member to speak on the radio or at public meetings on this subject May I urge you to accept this responsibility as a way still further to place the organized medical profession in the position of leadership in public health activities, many of which in the past have seemed to appear so importantly in the public eye on behalf of non-medical groups as to imply that the medical profession is indifferent to these aspects of its high responsibility

This brief recapitulation of the activities of the society, barren as it is of details, could be expanded extensively by inclusion of the mass of data which is required to be digested to pursue these policies, of the hundreds of stated meetings and personal interviews which are part of the big job which organized medicine has assumed in this State

And it cannot be too emphatically put that it is incumbent upon us, by the pursuit of such measures as these, to prevent those whose occupation is to *talk* about medical care, from inaugurating visionary proposals tending to prevent us, whose occupation is to *provide* medical care from keeping faith with our patients and with the public. We have been accused of thinking only of our bank accounts when we oppose compulsory health insurance. When

did we ever think in terms only of our bank accounts? Where is there another profession which is so impersonal in its primary objects, working so surely, and so effectually, fighting every kind of disease, driving out of existence, if it were possible to do so, the very source of our income?

William MacDougall once said that civilization began when man discovered that he could satisfy his egoistic and his altruistic impulses in a single act. Through the centuries the medical profession has been disciplining itself as a hard master would discipline a student of whom he had the highest hopes, through the centuries we have been perfecting ourselves to fulfill the great obligation to society which is our privilege. Today, the American public is the recipient of the best medical care in the world, and I need not bother you with

the statistical evidence that with few exceptions, our death rates are below all those countries where the doctor's activities have been painfully made the object of the state's beneficence.

We want to remain free to advance ourselves in the way we do now, by service rendered to the patient, or by service rendered to the public as a whole. If Mac Dougall is right, and there are people who think that a man may have been a professor in a college and still sometimes be right—collectivism as an incentive to replace in individualism—would be a step backward. Our obligation would then be shifted from our shoulders and become the obligation of society as a whole. This is too great a diffusion of responsibility. Those who know the least, but who talk the most, would control

PARTNERS IN PUBLIC HEALTH

FLOYD S WINSLOW, M D, Rochester

President, Medical Society of the State of New York

Anybody can tell us what a public health person should know, if somebody will first tell us what that person is to do.

Public Health workers and private practitioners alike engage in an occupation whose purpose is the improvement of people's health. The health officer's work is extensive, that of the doctor is intensive, that of the public health nurse may be either or both. The health officer thinks in terms of cases of pneumonia, the doctor thinks in terms of persons with pneumonia. The health officer is more or less abstract and communal in his attitude, the doctor is essentially concrete and individual, the nurse often serves as a link between the two and an interpreter of their aims to actual or potential patients.

None can get along without the others. We should be more than just acquaintances, we should be friends. We should understand each other more fully than we do and we should cooperate to better purpose than we have sometimes done. It is easy to be critical. I admit at the start that the average doctor might very well know more about community health problems, the value

of vital statistics, the importance of certain sanitary procedures. On the other hand, the health officer might well understand more about conditions as the doctor encounters them in the sick room, the personality problems involved in almost every one of his relationships, the difficulties which stand in the way of his obtaining the cooperation of the patient in some particulars without seriously disturbing the whole confidential relationship. To a health officer, statistics on a chart may be too easily interpreted as failures of private physicians to achieve ends which bulk black on the roll of the community's total, but to the individual doctors, these imperfect results may mean, in each case, the best that could be accomplished under the given conditions. Angels perhaps could have done no more—health officers, even if endowed with plenary powers of compulsion, might have done much less.

I believe I could write on the imperfections of the medical profession until the celebrated Saratoga Springs ran dry. The trouble with us is that we are so busy with our individual cases of people who are sick that we have no time left to devote to ag-

gregates of sick people, and we fail to sympathize as fully and instinctively with communal purposes as no doubt we should. Some have been kind enough to point this out to us on a number of occasions, it must be admitted that we are improving. On the other hand, there are those of us who think that some public health efforts are operating to increase the number of instances in which persons who should go to a private practitioner are allowed to feel secure in the advice of persons of inadequate ability and experience.

That popular health instruction in the mass and individually is a part of the function of health departments, as well as the obligation of voluntary health agencies, is clear from the examination of their activities. The school nurse and the school physician, for example, are strategically placed to protect the school body in many particulars which would never pass under the observation of the family doctor. They can do things which he cannot do in this respect, therefore they should do them. But are they ready to assume the responsibility for diagnosis or treatment, and do they realize fully enough that they may be innocently diagnosing or treating when they think they are doing educational work?

What matters is not the purpose but the effect of that which is done. The difficulty of the public health worker's position, particularly that of the nurse, is apparent. She, like the doctor, must obtain and retain the confidence of the people she serves. It is difficult to say, "You should see your doctor," when an apparently trivial question is asked. It is easy to respond to a request to be more specific. The extent to which the nurse may be substituted for the doctor, quite unintentionally on her part, is not to be overlooked as one of the problems inherent in the extension of her activities. Should she express opinions on conditions of individual persons even when coupled with a warning to "see your doctor?" The temptation to do so is great and the more confidence in herself which she establishes, the more frequent and insistent will be the temptation. Yet she will be the first to admit that she is not ready to accept the full responsibilities of such a relationship.

If we agree that vital statistics can only tell us where to apply therapeutics and not how, that the healing process cannot be performed by means of surveys, that a

person with public health training is not equipped to diagnose or prescribe, then we should agree that in the last analysis, the health of the community will depend to a great extent on what goes on in the doctor's office and in the sick room. No other situation in the picture can be more important. Yet no other situation in the picture receives less popular emphasis outside the strictly medical forum of the medical school, the clinic, and the technical journal.

I do not decry health instruction. It is of value especially when it results in action on the part of those to whom it is directed, which is not always the case. Often, I fear, it either unduly frightens or unduly allays disquietude. Prevention is important, but the most effectual prevention is not a story in a newspaper, but the story which the doctor tells the patient after he has examined him. The official and voluntary agencies do well to create a demand for preventive medicine. It is then undoubtedly the province of the doctor to administer these measures.

The delineation of functions in a composite administrative picture is never an easy one—since human beings are not absolutes—which may be blue-printed with certainty. The head of a great establishment employing thousands of persons once examined a chart of his organization on which he and his executives had labored, and said with a smile, "This all looks very fine, but how long will we be able to keep these people inside their little rectangles?" He might also have asked, "How long would I wish to do so, if my organization is to continue growing?"

Every group possesses something like a biological will to live, and tends to increase its powers, as we know is true of all individual life on this planet. Every group has the virtue and the vice, the insight and the blindness, of its peculiar species. Community deathrates are meaningless to the physician who wakes up in the middle of the night, asking himself if there could be anything additional that he might have done for the cases which are most upon his mind. These sick people are his responsibility. His days and nights are occupied with the seriousness of this responsibility. When he has a moment to spare he wishes to study, to keep up with the march of medicine. He has no time to devote to statistics of

thousands of persons unless he is specially interested for some reason other than clinical

Persons in the mass are not his responsibility. They are the responsibility of public health authorities to the extent, and in the degree, that it is possible to do something for thousands of persons en masse. But you cannot diagnose thousands of persons as thousands, but only as the sum of individual diagnoses, you cannot treat the diseases of thousands of persons except as the sum of individual treatments, therefore the public health function ceases where diagnosis and treatment begin. I would go a little farther and say it ceases when education or instruction is in fact construed by the recipient as diagnosis or treatment.

The public health groups and voluntary health organizations have done an excellent job of teaching the people certain scientific facts which have not only sent them to the private practitioner for help when they needed it, but have sent them better prepared to be good patients. Taboos are being removed which kept people from seeking medical care, especially in tubercu-

losis and syphilis. In many other ways the medical profession should be thankful for the work of these groups which are able to tell the public things which the doctor cannot tell them without loss in public esteem, and therefore in healing ability. However it is possible for one to learn and teach the value of an x-ray in suspected tuberculosis without really knowing anything about x-rays. The word "shadows" may be used by a person who does not know whether shadows show black or white on a negative. This is merely to say that it is not necessary for the salesman of preventive medicine to know how to conduct a physical examination, just as a man can sell automobiles who could not make one. By the same token, care should be exercised that these official and voluntary groups in easy access to the public mind do not become substituted, through identification with the subject, for the services which only a trained and experienced physician is able to provide. Wise is the man, be he the doctor or one of his co-workers, who, with Plato, can say, "What I do not know, I do not think I know."

CAN THE PUBLIC BE TRUSTED?

FLOYD S WINSLOW, M.D., Rochester

President, Medical Society of the State of New York

In many quarters it is felt that the time has come for organized medicine to address itself to the public in a way that it has never done before. As a body, we have always been ready to respond to any reasonable requests for information or advice on medical or related subjects. As individuals, we have never been remiss in assisting, usually without compensation, public agencies which needed our help. This has often been done when the direct effect was contrary to our personal financial interests. But what is meant is something further than this.

It seems now, that in a changing order, more is required of us. Upon every hand we see the evidences of overt and systemized efforts at persuasion, direct and indirect in presentation, but studied and planned.

Of course it will never be necessary nor

compatible with the position we occupy in society, for doctors as a group to descend to the devices of the professional propagandist. But the question has been raised, and we should all give it considerable thought, whether we may not make ourselves more vocal than we have been, which means to change our attitude a little and take the public more into our confidence.

Laymen are assuming the right to discuss and decide many questions which we have thought were exclusively for our determination. The idea was expressed forcibly in a recent weekly publication by a writer who used these words: "As an occasional purchaser of medical services I am as much entitled to my ideas of what is represented by medical care as is the doctor—so is any patient for that matter."

Now we all know the dangers which lie in self-diagnosis and treatment—dangers to the patient. We all know the pitfalls which the practitioner is sure to fall into if he attempts complete explanations to the patient of everything concerned with individual cases. The patient has neither the knowledge nor the experience to serve as a background to help him understand what we may tell him, and misinterpretation of our statements is more frequent than is adequate appreciation.

We can easily tell too much for the patient's own interest. This, of course, is an individual problem, and depends on the intelligence and the emotional character of the patient himself. But may I call attention to the fact that the same rule of reticence may not apply to medical subjects which are economic or sociological, and, if so, that our attitude toward the public on them should be changed?

The writer I have mentioned is partly right, though his statement is too general. If he were to limit the realm in which he is entitled to an opinion to matters such as sickness insurance, then we would agree with him that he is entitled to an opinion, as a purchaser of medical care, though it might be a very wrong opinion, and one exceedingly damaging to himself and others, if it should prevail. My point is that there have arisen a number of questions related to the work of our profession, which are not essentially scientific or therapeutic, and on which a lay person with a trained mind may be equipped to form a sound opinion.

At any rate, we face a situation where such questions as these have definitely been withdrawn from the medical forum and placed in the forum of public opinion. It is not going to be enough for us to dismiss opposing ideas on these things with such oracular statements as "The medical profession alone is a competent judge of how medical care should be distributed."

I think I hear somebody whispering that it is dangerous for us to relax our attitude and perhaps later find ourselves forced to accept the judgment of the arbiter before whom we have stated our case. We will agree that on questions inherently medical our prerogative to decline discussion and to confine ourselves to more or less arbitrary authoritarianism should be maintained. On these other questions such as sickness insurance, vivisection, and the licensing of cult

practitioners, let us examine carefully whether or not, in general, the public may not be trusted to form a sound opinion. For we cannot with good grace admit them worthy even to be persuaded, unless we have some degree of confidence in their ability to form a wise judgment, after they have had the advantage of an adequate presentation of the material intendments of the subject.

I have two examples to cite to you which seem to bear directly on this point, and which lead me to believe that in general and after the public has been fully and fairly informed on both sides of any controversy, the resulting majority view is of a far sounder character than many of us think. Yet again I must ask that we distinguish clearly between what I am calling the medical and the quasi-medical realms.

During the course of the recent nationwide high school debate on state medicine many medical men were disturbed by the insidious character of the propaganda to be foreseen as one of the results—perhaps the intended result. We were quite suspicious of the whole undertaking. You probably know that five thousand debating coaches in all parts of the country engaged in training debaters for these high school contests.

Plenty of material on both sides of the question was made available to the debaters, principally through the excellent work done by Mr J. Weston Walch of the Debater's Information Bureau, of Portland, Maine. Both sides were well presented in this material. And we have Mr Walch's statement in a recent issue of *Medical Economics* that the side against state medicine is much the easiest side on which to build a strong case, in the opinion of many debating coaches. The instructors, he states, in their personal opinion, lean heavily toward the present private system. Says Mr Walch: "Those with whom I have talked and corresponded have been most concerned, first, over the political and bureaucratic interference that would follow socialization, and second, over the almost unbearable cost which would have to be met by some form of increased taxation."

It looks very much in this instance as if an informed public could be trusted with the solution of such a question as this. If the choice of this debate topic was a devious propaganda device of the agents of medical socialization, the bird they loosened came right back home to roost.

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So let's sit down together for a moment and talk things over—the doctor and the public. I welcome this opportunity to do so today as guest editor of the *Rochester Journal*

What actually goes on at medical meetings? Doctors get together for a number of different purposes, but principally to learn from each other better methods of practice—how to be more effectual in healing the sick. This is the scientific aspect of our meetings. There is another aspect. It is the social aspect. Most people are unaware that the Medical Society of the State of New York participates in one way or another, either by approval and advice, or by active, energetic action, in such public health saving programs as pneumonia control, child hygiene, tuberculosis, cancer, maternal welfare, and nursing education.

At present we are preparing for an effort during the winter months to cut down the ravages of pneumonia. These are the things that we are undertaking to teach the public about pneumonia.

Medical handling of these cases is just

as much an emergency as acute appendicitis.

Early recognition is of vital importance.

Proper nursing care is equally important.

If these activities and many others are not known to the public, whose fault is it?

Frankly, it is our own. We have been indifferent to the public. We have felt it was enough for us to do these things, and let others talk about them.

But "times change, and with them customs." The medical profession is becoming vocal. Whereas it was formerly considered undignified for the doctor to address himself to the "lay" public, we now feel that this is a most valuable contribution for us to make to the public welfare.

So the public may look for us in the future to explain more than we have in the past about what we are doing and planning. We may not always be as talented at telling as we might wish, but our friends, the newspapermen, will help us, I am sure. This will make us better doctors, and I suspect it will make the public better patients, too.

WHY DO WE HAVE MEDICAL ETHICS?

FLOYD S WINSLOW, M D ,

President, Medical Society of the State of New York

There is probably more popular misunderstanding on the subject of medical ethics than on any other connected with the practice of medicine, and yet perhaps there is no subject which has more to do in a vitally controlling way with the service which the profession of medicine is able to render to the public. Why do we have medical ethics? What is this code of behavior to which the doctor is bound? Does it operate for his benefit, or for the benefit of the patient, or for the benefit of both?

Everybody has a code of ethics, though few go to the trouble of formulating it. Your code, whatever it may be, consists of the standards, or principles, which guide your conduct. Ethics has to do with what is right or wrong in the given circumstances. And everybody's code is revealed in what he does, not in what he says.

Now a code which will do for one occu-

pation or pursuit may not be practical for another. There is a story which illustrates the point. Two men were in partnership in the grocery business. One day one of them said to the other "Bill, what's all this I hear about ethics? What are ethics, anyway, do you know?"

"I'll tell you, Charley," Bill replied. "Here's an example. A man comes in to buy some goods while you are out of the store. He buys ten dollars' worth, and gives me a ten dollar bill. I take it over to the cash register, and when I start to put it in, I find there are two ten-dollar bills stuck together—the man has given me twenty dollars instead of ten. Now this brings up a question of ethics. The question is shall I tell YOU?"

That's one kind of ethics. We will all agree it is not the kind that should be encouraged, nor is it the kind on which a

The other example which has been called to my attention comprises certain results of surveys made by Dr George Gallup of the American Institute of Public Opinion, Princeton, N J. Dr Gallup takes issue with the statement that "the public is always wrong." He cites findings which lead him to prefer Lincoln's statement "Why should there not be a patient confidence in the ultimate justice of the people? Is there any better or equal hope in the world?"

Dr Gallup's organization conducts what amounts to a continuous poll of popular opinion throughout the country. This work is done on behalf of a number of subscribing newspapers. The institute has a staff of 150 trained investigators who supplement with interviews the results of thousands of ballots mailed out. Five controls are used, not only to secure proportionate returns on the basis of state populations, but also of residence on farms and in cities, income groups, and voting ages. The polls conducted by this institute has never varied more than two per cent when checked against popular elections.

I cannot here go into the results of a number of polls which have demonstrated to Dr Gallup that in general the people are to be trusted in decisions on public affairs. I shall content myself with quoting from one of his reports merely as to a single poll. Says Dr Gallup "About the middle of December we reported on one of the most interesting polls we have conducted. The question was 'What do you think is the most vital issue before the American public today?' Each voter had to write in his choice. The three issues that led the list

were 'Cure unemployment, stop government waste, stay neutral'."

Then Dr Gallup asks the question "Does that look as if the people lacked political brains?"

Now I am free to say that I think there are certain exceptions to the rule that the public may be trusted. But there are even more serious objections to assuming that they can not be trusted, and that only a small group of men superiorly endowed are worthy of trust. History relates as many political vices under monarchy as under democracy, and you can take your pick whether you like the sneer of the patrician better than the leer of the plebeian.

We are living for the present at least under a system that resembles democracy more than any other, and we cannot ask that it work perfectly at all times and under all conditions. We as physicians know better than to expect that of anything to be found in this mundane world. And I am free to say that I think the public as a whole is well able to decide questions on which it is possible for them to form an opinion at all. Except in times of mob hysteria, or crowd elation or depression, such as the last decade has witnessed, the public can be trusted more than we think. Provided, always they are fully informed. Provided in the instant matters under discussion, we take the initiative, go to the trouble to inform them, and talk to them in their own language, easily, colloquially, forgetting perhaps that we are doctors and remembering only that we are citizens.

I suspect that the public can be trusted if we trust them enough.

THE DOCTOR AND THE PUBLIC

FLOYD S WINSLOW, M D,

President, Medical Society of the State of New York

There should be no misunderstanding between the doctor and the public.

Yet it is unmistakably evident that people who trust their doctors with their very lives, are just a little reluctant to give full faith and credit to them when they act in groups.

There can never be misunderstanding between two persons who sit down together to talk over their differences all the way through. They will at least agree on just what they cannot agree upon, which is the first step in composing differences.

The Rochester Evening Journal and the Post Express inaugurated a policy of having as "Guest Editor For A Day" in successive issues a number of prominent citizens of Rochester, N Y. On the occasion when Dr Winslow accepted the invitation to be the guest editor (October 6, 1936) his contribution was the above editorial.

tion from the patient, sometimes by using the arts of the cross examiner. To some he must be gruff, with others mild, he must at all times be ready to recognize when self-diagnosis by the patient prevents him giving a true picture of his symptoms. On the one hand there are persons ready to think they have any disease which is in the current of the popular thought of the moment, and there are persons of whom it can almost be said they will not believe they have a disease until they have died of it. The doctor must recognize the type of personality with which he has to deal, and adapt himself to each type by a suitable method. But confidence is always the basis of the relationship when it is at its best, and by this I mean when the patient is getting the most he can, and the doctor is giving the most that he can.

Now confidence, as somebody once said, is a plant of slow growth. It cannot be forced in the hot-house of self-praise. There was a time, when it was quite common for every town to have one or two advertising doctors, whose claims to cure almost everything by "new" methods, were brought loudly to the attention of the public. The public has to thank for the elimination of this outright vicious quackery, the newspapers themselves, who profited most by it, and yet who came to see the damage which was done to the public when persons were allowed to solicit patients in this way. Invariably the physicians were incompetent. Otherwise, they would not have been driven to the point of obtaining patients by bragging. For some reason or other, these doctors had forfeited the good opinion of the people they knew so that patients ceased to come to them, and they took the next step—the only one left to them within the ranks of medicine—to advertise for patients and accept people who knew nothing about them except as they might believe part of their extravagant claims. Being unable to make good on their promises, they obtained no new patients through the recommendation of old ones, and had to continue to rely on the beguiling of strangers. Advertising by doctors, direct or indirect, is vicious from every standpoint. It encourages practitioners to make claims they cannot justify, it robs the relationship of that bond of confidence which can only be built on years of service in the community. It encourages emphasis on the arts and devices of the advertising and sell-

ing business to the disparagement of meritorious medical work which will ultimately become known through the recommendations of patients well served. So we have this rule, which I also quote from the "Principles of Ethics": "Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, or by personal communications, is unprofessional."

I need not go farther in discussion of the many other rules of professional behavior. While most people are not aware of them they may be observed in the conduct of physicians of any community. They all operate for the benefit of both the doctor and the patient, not, as many people think, for the benefit of the doctor alone. They are standards of conduct, which as Dr. Cabot said, have a practical end. The practical end is to enable the doctor to do his best for the patient. Most of them have to do with perfecting a confidential relationship which is essential to doing good work. The opposition of the profession to state medicine is based on this principle. State medicine would destroy this confidential relationship by interfering with the free choice of physicians. Whereas now the incentive of excellence is the motive power of the profession, under state medicine the incentive would not be to please the patient, but rather the officials in charge of the public machinery of medical administration.

There can be no rights without obligations. We who follow the healing art cannot assume its rights without certain obligations, as we have seen. Can the public, then, assume the right to call on us in distress without assuming the obligation to see that we are allowed to retain our high ideals of competence? Is it not the obligation of the public to see that as a group, we are sufficiently well compensated so that we can preserve our standards without the temptation to resort to the shyster methods of the cheap charlatan? If we are to be good doctors, you must be good patients. You must help us maintain the present high standards of private practice by joining with us in resisting any tendencies to lower the rules of conduct by which we are able to give you our very best. You call upon us when you are in need, and we come. If the time ever arrives when we are in need we shall call upon you to help us preserve these standards.

permanently successful business can be built. What is right and what is wrong? Is what is right for one man right for everyone else, and is what is wrong for one man, wrong for everyone else? Dr Richard Cabot, a physician of Boston says "Most of what used to be called goodness has rightly fallen into disrepute because it is inefficient. As I see it, ethical diagnosis, like physical diagnosis, has a practical end."

Dr Cabot believes that a code of ethics is composed of tacit agreements between people, so that each one knows what to expect of the other. The question doubtless has arisen in the minds of most thinking people, why shouldn't I do as I please? Why should I be bound by any rules or responsibilities to duty, or to custom, or to public opinion? And the answer simply is that other people won't let you keep on breaking the rules—you cannot permanently get by—you will be found out in time, and then others will cease giving you the things you expect from them because you have failed to give them what they expect of you.

In a word, there are always certain guiding principles of behavior among all groups and in all relationships of life. They differ and they change but they constitute working agreements that enable us to live together. So there are guiding principles between the doctor and his patient, principles the doctor must observe to be permanently and genuinely successful. I am intending to discuss some of them briefly. There are also principles of behavior the patient must observe, if he is to be a successful patient, and get all that he expects to get from the doctor. And I intend to discuss some of those principles, too.

Let me quote from what are known as the Principles of Medical Ethics of the American Medical Association "A profession has for its prime object the service it can render to humanity, reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals."

The rule which I have quoted is seen to be peculiarly effective when we find medical men freely giving to the world every discovery or improvement in technique which they may make. This situation is not matched in any other calling or pursuit. An engineer who invents a new process or device gets all the advantage of a patent,

a writer who creates a worthy novel or play gets all the advantage of a copyright, the doctor gets nothing. Only the quack has a secret "cure" which he claims is his own infallible method. The kind of man capable of making a contribution to the care of the sick is always the kind of man who at once makes his knowledge known to the medical profession and thus to the world, which has the advantage of it free of any royalty for use. The discoverer's reward is often greater than any monetary one could be—the satisfaction of having done a useful service, and perhaps also, great personal prestige. Now while financial gain is, I am glad to say, a subordinate consideration in the mind of the doctor, it still must be a consideration if he is to pay his bills, and continue to heal the sick. The patient expects from the doctor the best he can give, and the doctor expects from the patient the best he can give, too. And the best the patient can give is not only to pay his doctor when and as he can, but even more importantly, it is to be sure to hold nothing back, to tell him fully everything that can possibly affect his condition. Another thing that the doctor has a right to expect is that the patient shall follow the advice and directions which he receives.

I have time to discuss only a few of the principles of medical ethics. First is one which flows naturally from the previous one. If there is an obligation on the part of the patient to withhold no information from the doctor, then, there must be, and there is, a responsibility on the part of the doctor to preserve this confidence. Again quoting from the "Principles of Ethics" "The confidences concerning individual or domestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively demanded by the laws of the state."

So here we have, in the code of ethics, the protection which is given the patient for a full and complete disclosure to his doctor. Unfortunately, there is no code for patients, to which all persons must subscribe before they enter a doctor's office, but if there were, one stipulation as a basic provision, to enable the patient to get what he needs, would be worded like this **TELL YOUR DOCTOR EVERYTHING**. The doctor must at times obtain his most important informa-

the first meeting of the American Medical Association was held in Baltimore in 1848.

It appears that the primary and social purpose of all of these various stages in medical evolution was based upon two distinct aspects of organization (1) to provide a high quality of medical services to the community, and (2) to prevent fraudulent medicine—quacks, charlatans and schemers—from exploiting the public.

Any fair and honest analysis of the medical service as provided for the citizens of the United States will demonstrate that the most potential agent for our splendid health record has been the disinterested, unselfish public education that has been carried on by the county and state medical societies and the American Medical Association. A large portion of the funds of these various units of organized medicine has been expended in informing the public of desirable measures for personal and public health. Let me emphasize that a large part of the annual funds of the American Medical Association is expended for the protection and best interest of the public. To specifically name some of these activities, it is only necessary to mention the Council on Medical Education and Hospitals, the Council on Pharmacy and Chemistry, the Council on Physical Therapy, the Committee on Foods, the Bureau of Health and Public Instruction, and the Bureau of Investigation.

So far as organized medicine assuming, as is alleged, a vested interest in sickness, it has through the years brought about a constantly diminishing rate of illness so that it is practically the only big organized function of society that is improving conditions and at the same time lessening its field of remuneration.

It may be pertinent now to inquire whether organized medicine has justified itself. In other words, to look into the record for the purpose of seeing what has been accomplished under the present day set-up of the medical profession. Has the medical service that has been rendered in the past twenty-five years been competent and effective? Has society been rendered free from certain disease? Has the general morbidity and mortality been reduced? Has the general health of the community been improved by medical agencies? It requires but a very cursory survey to arrive at a verdict that medical service has not only been competent but it has been superlatively ef-

fective. Let us draw to your attention that tuberculosis in 1900 had a death rate of 202 per 100,000, while in 1935 it has reached the surprisingly low figure of fifty-five per 100,000, and that out of the seven leading causes of death in 1934-1935, in spite of a period of depression, it showed a fall in mortality ratios. Again, let us take the story of diphtheria. No city in the United States has a death rate more than six per 100,000, yet in fifty-two German cities the rate was eleven per 100,000, and in 151 English cities the rate was 11.6 per 100,000. Typhoid fever, except for certain peculiar areas, has become practically non-existent.

According to the League of Nations Health Statistics, the death rate of the United States in 1934 stood at eleven per 100,000. This death rate includes the Southern states with their large negro population. If we leave out the Southern states and consider that portion of our country that is comparable to Central Europe and the British Isles, we have a death rate less than any country with health insurance. Again, if the causes of death which were operative in 1900 were active today we would have an annual total death of 1,962,999. To the contrary, in 1925, 1,398,673 persons died, a net saving in twenty-five years of 572,326 persons per annum. Our longevity has increased from 47.24 years to 59.31 years, so that we can say that the medical service for the past twenty-five years has not only been effective—it has been extraordinarily competent.

Has the practice of medicine in the last twenty-five years been scientific and in keeping with the general progress in science? A profession that has produced insulin, liver therapy, vitamin therapy, orthopedic and cancer and restorative surgery, and advanced in x-ray diagnosis, and x-ray and radium therapy, has certainly been so productive in discovery as to be well in advance of any of the divisions of physical science.

Has the distribution of medical service been effective? It must be admitted that in our country there are some geographical inadequacies of medical service but I think it may be stated safely that the deficiencies of distribution of medical services are not at all comparable with the illiteracy that exists in some of the backward areas nor with the inadequacy of nourishment, living condi-

Economics

ORGANIZED MEDICINE

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In the first paragraph of the Oath of Hippocrates every physician swears that "by precept, lecture and every other mode of instruction I will impart a knowledge of the art to my own sons and those of my teachers" Some 2400 years ago was thus laid down the foundation of what has since been called "organized medicine." The transmission of medical knowledge, the acceptance of new discoveries in science, and the obligation to maintain medical services for the benefit of the community have been the outstanding and guiding principles of medical organization.

Organized medicine may be defined as the grouping of physicians in the county and state medical societies and the American Medical Association for the purpose of serving society. Physicians became organized almost from the beginning of time. Historically there are nine epochs in the development of mankind (1) the period represented by the discovery and utilization of fire, (2) the period of the bow and arrow, (3) the period of pottery. These three epochs are roughly called the age of savagery (4) The period of the domestication of animals, (5) the period of metallurgy, (6) the period of writing. These three epochs are roughly called the age of barbarism (7) The period represented by the discovery of gunpowder, (8) the period of the steam engine, (9) the conquest of nature by physical science. These are also roughly grouped together and called the age of civilization.

It is pleasant to reflect upon these various periods, to realize that in all of them there were one or more individuals who treated disease and the injuries of mankind and contributed to the distribution of medical knowledge. It is certain that there was a definite organization of medical men at about 2500 B C for we have in the code

of Hammurabi the record of certain rules that were enjoined upon the medical profession. The history of Greece before the Christian Era is replete with references to groups of physicians and it seems evident that in the formulation of the Hippocratic Oath and the devising of the Hippocratic laws the physicians subscribed to a compact which made their society a model of organized medicine. While Eastern Roman civilization was destroyed by the fall of Byzantium to the Turks in 1453, other events in medical organization were being initiated elsewhere. A medical school was established at Salerno, Paracelsus and Luther broke with authority, Paré introduced the physiologic principle of natural repair in war wounds and Harvey in England was discovering the circulation of the blood.

It is significant that the impetus for medical organization began in England and in France. The Royal College of Surgeons of London was established in 1800 and the French Academy in 1792, while as early as 1760 the General Assembly of New York ordained "No person whatsoever shall practice as a physician or surgeon in the City of New York before he shall be examined in physic and surgery."

The Medical Society of the County of New York was organized on November 14, 1794, two years after Jenner discovered vaccination and three months after the reign of terror in France was brought to an end by the fall of Robespierre. Twelve years later the Society was incorporated on April 4, 1806, a year after Jefferson had been re-elected President of the United States.

In 1807 the Medical Society of the State of New York was founded and authorized to conduct examinations and license applicants for admission to the practice of medicine. In 1847 delegates for the American Medical Association met in Philadelphia and

nese to the practice of medicine does mean progress. Organized medicine welcomes any scientific fact, discovery, survey, research, that will improve the health and well-being of our people. It is not prepared, however, to surrender what has been proved to be good and effective, for a chimerical system involving a complete renovation of medical practice no matter under what shibboleth it is labeled.

There are certain things that do not change with the times. One of these is truth that cannot be in two different places at the same time. Because a thing is, does not necessarily mean that it is fundamentally wrong and mere movement does not mean progress. Medical practice is not a static principle but a dynamic concept of service to the community for the taking care of the physical and mental condition of society. By constantly accepting the advances in science organized medicine has accelerated the health of the people and reduced the measure of illness. Organized medicine believes that it is by this dynamic quality of scientific progress that good medical practice has been given and will continue to improve, and that fundamentally the question is quality of medical service and not cost of medical service.

We believe (1) that all features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

(2) That no third party should be permitted to come between the patient and his physician in any medical relation. All the responsibility for the character of medical service must be borne by the profession.

(3) That patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

(4) That the method of giving the service must retain a permanent, confidential relation between the patient and a physician. This relation must be the fundamental and dominating feature of any system.

(5) That the medical phases of all institutional service should be under professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the

physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

(6) That in whatever way the cost of medical service may be distributed, it should be paid for by the patient in accordance with his income status and in a manner that is mutually satisfactory.

(7) That medical service must have no connection with any cash indemnity benefits.

(8) That any form of medical service should include within its scope all legally qualified doctors of medicine of the locality covered by its operation who wish to give service under the conditions established.

(9) That systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

(10) That there should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

Let the critics of organized medicine tell us wherein these ten points are fallacious, and add, if they will, how they fail to safeguard the community in the distribution of medical services.

The insurance principle as applied to human sickness is acceptable only in buying hospital lodging, accommodations, food, and general nursing care. The insurance principle applied to the employment of professional services will fail because there are inherent in it defects that depend upon the variability of human beings. Medical service is not a mechanical gadget that can be fabricated. Medical service is the relationship of a doctor and a patient, both are animated human individuals, both are equipped with their own personal psychology and the character of the medical service rendered is the application of scientific knowledge plus certain intangibles to the patient's medical problem plus the ability and psychology and sympathetic contact of the doctor. This is not an insurance proposition that can be calculated or estimated upon an actuarial basis.

Human nature being what it is the adoption of the insurance principle for medical services puts a premium on malingering and

tions, and housing. In addition, it might quite well be challenged whether the distribution of medical services can be adequate for certain areas until the basic defects of education have been overcome, until more roads are built, the sparsity of population overcome, and the needs of some remote groups of citizens aided by effective contacts with scientific medicine. Remember that hospital facilities have been increased and diagnostic, and treatment clinics far surpass in number and effectiveness the dreams of any sociologist of 1900. I think organized medicine may claim that in general there has been an effective and only exceptionally an inadequate distribution of medical services.

Is the diagnostic work in America superior to that enjoyed by other less fortunate countries? In 1884, there was introduced into Germany by Bismarck a form of socialized medicine called the "Krankenkasse," and in 1911 in England the so-called "Panel System" was inaugurated. From whatever angle one surveys the present medical service in America and compares it with either one of these socialized systems, we find that the American people enjoy better health, live longer, are being born with better health and that our young children are growing up into better specimens of adults.

The outstanding defect of both of the foreign systems is that they divide the practice of medicine into a class practice and the measure of effectiveness of the medical service is dependent upon the economic status of the patient. There is thus created a superior type of medical service for the well to do, and a substandard type of medical practice for those in the lower economic brackets. The practice of medicine in the lower economic group becomes largely a prescription practice—a brief visit to the doctor, a scant short history, and a prescription or the dispensing of a bottle of medicine. One of the most tremendous steps in the practice of medicine in America is that it has become a diagnostic practice, a practice based upon a complete physical examination, scientific laboratory determinations, and the direct opposite of a prescription form of medical practice.

Today, the patient, regardless of economic status has free choice of his physician. Some of our critics maintain that when a patient comes to a hospital he may not choose his

doctor and therefore does not exercise free choice. That is quite beside the question. When a patient goes to a clinic in the City of New York he selects that clinic of his own free will and choice. He is attracted to that particular hospital by its reputation, a reputation founded solely upon the professional service it renders to the community. No authority to date makes that patient go to a particular hospital. He has absolutely unqualified choice as to what hospital he will go to and the doctors he selects are on the basis of the professional service rendered by that hospital. Our medical service under organized medicine at the present time admits of no administrative costs and is without the interposition of a bureaucratic third party between the patient and the doctor.

Has organized medicine improved medical standards and medical education? Improvements in medical education and the measures for protecting the community from inferior practitioners have arisen from within organized medicine. The Medical Society of the County of New York, together with the sixty-one other County Medical Societies, constitute the Medical Society of the State of New York, and the forty-eight State Medical Societies, plus Alaska, Porto Rico, the District of Columbia, the Panama Canal Zone, the Philippine Islands, and Hawaii, constitute the American Medical Association. The organized medical profession as represented by the A.M.A. has brought about a reduction in the number of medical schools from one hundred sixty-five to sixty-seven, and succeeded in obtaining an almost uniform premedical curriculum, has surveyed and approved hospitals throughout the United States, has listed hospitals for the training of interns and resident interns, has promulgated a code of ethics for the protection of the public, has established certification boards for the examination and registration of those seeking to be specialists in all the major branches of medicine. The record shows that the organized profession through its medical societies and under the leadership of the American Medical Association has fulfilled its obligation to society, to go forward in effectiveness and in scientific progress.

Mere changes do not necessarily mean progress but the orderly organization of demonstrable facts and the application of

ase to the practice of medicine does mean progress. Organized medicine welcomes any scientific fact, discovery, survey, research, that will improve the health and well-being of our people. It is not prepared, however, to surrender what has been proved to be good and effective, for a chimerical system involving a complete renovation of medical practice no matter under what shibboleth it is labeled.

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extension of days of illness. The average loss of time to a workman in the United States by illness is six and one-half days, in Germany under the Krankenkasse thirteen days, and in England under the Panel System eleven and one-half days. The expense of administration of sickness insurance in England amounts to over one-half of the total amount paid to the physicians and the number of nonmedical workers in Germany is greater than the total number of physicians doing the medical work.

No patient should have cash benefits for being sick. Is it reasonable to suppose that a man being sick, not working, in a hospital, being supplied with the physical accommodations and food and attention, and \$4 00 a day while being sick, will be anxious to return to work?

It has been estimated that to provide a comparable medical service such as exists today, on a government insurance basis would require at least ten per cent of the payroll.

It would seem from an earnest study that the medical conditions in our less populous states are not comparable to those that exist in New York State. Personally, I favor a reduction in the number of medical graduates. In 1905 we graduated 5606 physicians from approximately 160 medical schools. In 1935 we graduated from recognized medical schools 5101 physicians and probably between 200 and 300 were graduated from unrecognized commercial schools. We lose by death every year about 3800 physicians—a yearly increase of about 1200 practitioners of medicine.

In November 1929, I had occasion to present certain views upon the distribution of medical services. These views were advanced three years before the final report of the Committee on the Cost of Medical Care. In the intervening seven years, while I have had occasion to modify the practical details of these suggestions, I believe that they are fundamentally sound and are applicable to the medical profession of the City of New York, or in a larger way to the State of New York. I again offer them with some added details as a practical, sincere, and honest attempt to increase the usefulness of the medical profession and to give a wider application to all medical services.

Every practitioner believes that the proved indigent is entitled to medical serv-

ices free of all charges and that the cost of this service should be paid by taxes levied on the general population. The maintenance of this service is a responsibility of the State and not the Federal government, although the Federal government might remit sufficient funds if and when necessary to make up the deficit. For this service it would be necessary to define economic indigency and medical indigency. We believe that it is essential that the following conditions be made paramount in the consideration of medical services:

1 The maintenance of the voluntary hospital system with its free initiative, its independence, its spirit of research, and its unfailing services to the community.

2 The extension of medical services to the indigents in their homes and the doctors' offices with remuneration to the physicians on a capitation basis under the direction of the County Medical Society. All free services to indigents to be rendered by the physicians or outpatient department of the hospital within the geographical or regional zone in which the indigent resides.

3 The payment of a fair remuneration to all physicians working in outpatient departments or giving medical services to the indigents in their homes. This remuneration must not be so low as to bring with it an inferior medical practice and the palliative bottle of medicine. It should not be too high. *A fair average can be worked out and still maintain the best qualities of scientific medicine.* In the planning of the details of this service it might seem wise to set up a special subdivision of activity under the auspices of the County Medical Society and with a medical service bureau. This bureau would function along the lines evolved in creating the Workmen's Compensation Bureau of the Medical Society of the County of New York.

4 The complete financial separation of the free outpatient department of hospitals from the private or pay services of the hospital.

5 Limitation of the number of patients that may attend any one clinic. Since it is claimed that there is no profit in clinic and outpatient department services there should be no desire for a hospital to increase the number of outpatients beyond its capacity to take care of them. To save valuable time, with the economic loss, clinics could be run with a limited number and on an appointment basis.

6 Certification of indigents, fairly, sincerely, honestly, and sympathetically by the application of standards of eligibility, by central bureaus under the Department of Welfare with proper representation from the County Medical Society. It should not be the function of the out-

patient department to pass upon the validity of indigents nor should they admit for free services those that are not in truth indigents

7 Medical census of the indigents—to learn what our load is and how to take care of it. There should be devised a positive means of identification to prevent padding of the lists

8 Unequivocal opposition to all forms of compulsory health insurance. Insurance schemes tend to relieve the individual of his own responsibility and to increase the prolongation of illness. In short, under an insurance scheme it is profitable for an individual to be sick.

It seems to me that these are not unattainable objectives but can be brought into being by a mutual consideration of the problems between the various parties interested and organized medicine.

A constantly recurring enigma seems to be—why some altruistically minded individuals in high office apparently wish to foist upon an inadequately informed American people a system of medical practice of demonstrably inferior quality and at a constantly increasing cost, with a huge extension of administrative expense—all this to be paid for by invisible or indirect taxation. Why substitute this for a tried and

functionating, adequate, good medical service, distributed at the present time at a surprisingly low cost and without bureaucratic or political administration I know of no way to judge the future except by the experience of the past. Why should we discard all of our experience and enter upon a path of trial and error and which eventually leads to a poorhouse medical practice

Finally, may I, to paraphrase the words of a distinguished statesman, state that the medical profession "does not rely on endowment, but on its own exertions directed to meeting human wants. There is no great profession which has so little to say to the public purse, and which so moderately and modestly dips its hand into that purse. It is not only in the interest of the public, but of the profession itself, that it is eminently self-supporting, and, rely upon it, that the principle of self-support does much to maintain its honour and independence, and to enable it to pursue its stately march in the times that have come and in the times that are coming, to form its own convictions, to act upon its own principles without fear or favor, for the general benefit of mankind"

THE DOCTOR OF TOMORROW

DWIGHT ANDERSON

Director, Public Relations Bureau Medical Society of the State of New York

The Doctor of Today has been summoned before the court of public opinion. He is accused of failure to make his services available to all the people who need them. It is alleged that he is indifferent to the sufferings of those who are deprived of medical care because they are unable to pay for it. Government-controlled health insurance is to bring together the impoverished sick and the idle doctors.

It is an historic scene we are witnessing. On the issue of this trial of the Doctor of Today will depend the fate of the Doctor of Tomorrow. In this connection the words of Schiller come to mind "For in today already walks tomorrow." In the past centuries of the doctor's tradition, as he struggled to make a scientific art out of a superstitious necromancy, no such

charge was ever lodged against him. Not until we reach the present age, in the plenitude of a civilization surfeited with too much of everything, do we find him accused of not giving enough, of withholding his services. So now he comes to trial.

I am going to try to picture the scene on this occasion assuming that I have been selected to act as the doctor's advocate. The jury consists of six men and six women. Some of them have been patients of the doctor. Two were so poor they could pay for nothing, and the doctor took care of them free. Two of them could pay him, but have not. Two others do not believe in doctors and are a little bored to have to serve on the case. The remaining six have been patients at one time or another. All

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are typical American citizens a chauffeur, a silkmerchant, a lawyer, a college professor, a clerk, a retired business man, and among the women, a stenographer, a milliner, a telephone operator, a burlesque strip-dancer, a clubwoman, and a housewife

The jury has heard the testimony There were four witnesses a social worker, a sociologist, a professional uplifter, and a politician It could be seen that the evidence they presented, though it was mainly hearsay, produced a profound emotional effect upon the jury The witnesses were apparently disinterested They made strong claims in behalf of the underprivileged, alleging that women everywhere were dying for lack of medical care while the doctor sat idly twirling his thumbs in his office They pictured children suffering from disease and defects while the doctor spent his idle time on a golf course, careless of their suffering

The prosecution's case was well-presented because it was heavily financed Contributions had been made by a few large employers of labor who wished to give their employees cheap medical care instead of higher wages Pressure had been brought to bear by politicians convinced that nothing in the country was conducted as well as they could run it if given a chance Thousands of jobs and millions in perquisites were to be the prize if they could get the doctor under their control His occupation, economically, rated as the third in magnitude in the land

So the thing the jury was called upon to decide was whether the doctor was to be forced to work for the politicians under a system of health insurance conducted by the state, and paid for by contributions from the state augmented by a sickness tax levied on the employee and the employer

In his defense the doctor summoned, for the most part, other doctors They were men of the highest standing in their profession But it was easy to see that the jury was unconvinced, that they regarded this testimony as self-serving Only one non-medical witness, J Weston Walch, a school-teacher, went on the witness stand in a pamphlet which he wrote with that title The jury paid close attention to what was said by this unbiased student.

In rebuttal, the prosecution called a physician who had spent most of his life

in academic work, far from the actual practice of his profession He presented the problem not in terms of actual human behavior as the plan would work out in practice but in the form of figures, charts, and designs on a sheet of paper Nevertheless, his testimony weighed heavily with the jury who knew nothing of the elemental human values of confidence and trust which contribute to the success or failure of the therapeutic relationship

So it is at this juncture that the case is closed, and the time comes in the course of things for the doctor's advocate to rise in his place and address the jury

And were I to be his advocate I should argue like this in the court of public opinion

"You see before you here today a man not to be judged as other men are judged. His habits of life have led him to tincture his idealism with realism He is a man addicted to facts He has mistakenly thought, until now, that his best arguments would be the universal knowledge of the millions whom he has served without charge, the discoveries he has perfected and given without pay to the world, the efforts he has made to discipline himself and his brothers to the highest perfection of which they are capable. He has not thought the issue would be decided by the contestant who could shout the loudest So he appears here unprepared In fact, it was not until the last moment before the case was called, that he bethought himself to find an advocate.

"In his defense you have heard evidence that in countries where this scheme has been in operation vital statistics fail to show health conditions as good as in our own land, the healthiest in the world. But the answer comes that the plan might work better in this country than in England or Germany We asked and failed to get an answer, whether government here had proved itself able to administer affairs, even as well as in those European countries where health insurance has dismally failed to produce conditions as favorable as already exist in America

"The substance of the doctor's defense is that he cannot do his best work under health insurance, whose incentives and rewards will be alien to the attainment of excellence. The doctor submits that doing less than his best will effect a gradual de

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terorization of his character, lowering the quality of medical service. Obviously nobody wants this. Here, then, is a sharp conflict of opinion. The witnesses on the other side, who are not doctors, can see no reason why this should be so. We contend that if they were doctors they could see it. On this clear-cut issue you are forced to decide which view is most likely to be right.

"Now I ask you to decide that the doctor is most likely to be right because of all that you know about him. Certainly he has the best reason to be right, spending his life in care of the sick. You see him constantly trying to eliminate the causes of disease, knowing full well that the greater his success the less will be the demand and the pay for his services. Now if his opposition were affected by his financial interest would not this grasping attitude be reflected in other things that he does? Would he not patent his discoveries and sell them at a high price? Would he not demand pay in advance everywhere he goes? Having the power to heal, and having, at the moment of greatest suffering and anxiety, when he is first called, the opportunity to exploit the sick, why does he not do so, if he is the type of man to think first of his own selfish interest? If money alone were his aim would he spend it for post-graduate education to better discipline himself to serve you? Would he advocate always those measures, in the profession and out of it, which make it more difficult to become and to remain a doctor, to the end that the bungler, the incompetent, and the mercenary may not impose on the credulity of the sick under the sanction or the superiority which the title of physician gives him? Yes, there is self-interest here, of the sort that is contained in the struggle for perfection, but it is the kind of self-interest which protects the public more than it protects the doctor.

"When your life is in danger through sickness you place your entire being unreservedly in his hands with full confidence in his ability. Don't you think he is worthy of trust in deciding this matter? Don't you think he *must* know, better than anyone else, when he says that this scheme will make it impossible for him to render you full service, impossible for him to continue to be as worthy of your confidence as he is now? Who knows any better than he

does what will happen to him, and by the same token, what will happen to you? Certainly none of the other witnesses you have heard are likely to know so well. They cannot see the situation as realistically as he does because they are not men actively engaged in giving medical care to people.

"This is a bauble gift which is offered you. It will vanish at the touch. There is no substance in it. It is a part of the corrupting psychology of the day that we can get something for nothing, that life can be made easier than Nature intended it to be. Few have the courage to say with Cassius, 'The fault, dear Brutus, is not in our stars, but in ourselves, that we are underlings.' During the difficult recent years the ego of the crowd has been unable to bear the knowledge of its incapacity to walk on its own feet, and so there must be a scapegoat. The demagogue began to feed the crowd the flattery which it has loved to hear throughout all ages of history. The people were given 'panem et circenses.' The mob was fired with zeal to find, and to punish, those who had brought about their confusion and despair. Now, today, in this forum of public opinion, the doctor is the last of these scapegoats to be put into the dock. If you decide against him, it will not be the first time that the world has turned against its real benefactors.

"You have been told that many are without medical care, but you have not been told how many. The statistician who testified showed you figures that more than ninety per cent of the people who were questioned in a survey covering a certain year, were able to obtain medical care. Yet the statistician did nothing to find out why less than ten per cent went without it. That question was not asked. There is no evidence before you whatever that anyone seeking medical care was denied it.

"Members of the jury, you cannot be healed unless you seek to be healed. A system of medical care cannot be forced upon you to good purpose. It cannot be, and it should not be, brought to you without effort or sacrifice on your part. Its acceptance by you will be measured by the value which you put on it, and having given little, you will receive little. This is a law which cannot be escaped. It is with the illness of the flesh as with that of the spirit. 'Seek and ye shall find.'

"Ladies and gentlemen of the jury, the

fate of the doctor is in your hands. You can make him master of his house, or servant in the house of another. But whether he be master or servant he will still try to heal the sick, for such is his nature, different than that of other men. Healing has been his chief concern since the early dawn of recorded history. It is his chief concern today. It will be his chief concern tomorrow. Take his tools away and still he will seek to heal the sick. Relax his disciplines, and still he will seek to heal the sick. Put over him a clerk to dictate his prescriptions, a supervisor to interfere with his diagnosis, he will yet attempt to heal the sick. History recounts that the long list of physicians who ranked high in favor of the public for achievements in other walks of life were doctors first, and second they might be governors, as John Winthrop of Connecticut, or William Bull of South Carolina, or soldiers, as Leonard Wood, Walter Reed, and William C. Gorgas, members of the Continental Congress and a signer of Declaration of Independence as Benjamin Rush, authors as Oliver Wendell Holmes and S. Weir Mitchell, an etcher as Sir Seymour Haden, or a social reformer as Rudolph Virchow, and still their first concern has been the healing of the sick.

"In the second century many a great Roman relied upon the good offices of a medical slave, and though the Doctor of Tomorrow become your slave he will be healing you. In the darkness of the middle ages, with his skill taken from him in ways different from, but in effect similar to what you are asked to do to him now, nevertheless, he tried to heal the sick. We find him as Guy de Chauliac, chaplain and physician to three popes in the fourteenth century, we find him as Francois Rabelais in the fifteenth century, author and physician, later, in the seventeenth we find him as Thomas Sydenham, a puritan captain of horse in the Civil Wars, but his first concern was to heal the sick. In our own time, Sun Yat Sen and Georges Clemenceau offer plenty of proof that the physician, drawn aside to other paths in life, retains a native instinct to bind up the wounds which society inflicts upon itself, even when the wounds are sustained in contests against such wise leadership as the physician himself represents.

"Perhaps the physician is now to pay the penalty which is often exacted of honest

men. It is said that 'Glad are the feet of him who brings good tidings.' But the doctor recognizes the charlatan in many an optimist. The doctor knows that sickness, accident, and death must come to all of us. He knows that he who seeks to moderate the cruelty of these ills must work hard for this accomplishment. He knows that life is meant to be difficult, that rewards are meant to have their price, that things ought not to be made to seem easier than they really are. He has had the courage to tell you this, in the very teeth of the quack who would make you think that you are underprivileged. He knows that nature has been working for millions of years to make man fit to pay a great price to insure his own existence, and that the *best health insurance that can ever be obtained is that which comes individually by struggling to get it*. The doctor knows, and he has said, that mankind cannot rely for self improvement upon mere legislation put into operation by a beneficent government. The doctor knows that the man of yesterday, today, and tomorrow, is lost who depends for his salvation on giving less to society in order to get more. His advice has been frequently unpleasant, his instructions often entailed personal effort and self-denial, his warnings on occasion have been ominous. His feet were not always glad.

"He has had the courage to tell you these things in the face of the popular clamor that some mysterious force has stolen your birthright, which the magi will now return to you.

"He has had the courage to tell you these things because they are the truth. Ever he has sought the truth about life and death. He is different than other men. He is not to be judged by the standards of other men. He will not bring you good tidings for the pleasure of seeing your faces beam with pleasure, unless they are true tidings. For he knows that this is only to pander to a worse ailment than any we are trying to remedy, inducing false hopes which can be cured only by the ultimate tragedy of disillusionment. As is his way, he has told you the truth that life is hard, the way to the hilltop long and steep and difficult. For his plain speaking it is possible that you may condemn him, for he has been condemned by others before because he did not applaud ignorant altruism, change which was not progress.

"But no matter what you do to him, he heals the sick today and will still heal them tomorrow 'For in today already walks tomorrow' Under socialism, dictatorship, monarchy, despotism, or democracy still he will heal the sick, as best he can If you try to pluck him by the arm, he will pull himself away to keep on in the path he has chosen, though it now be a tortuous one, for he is not as other men are, easily persuaded. You may call after him 'But here is a different way for you to be paid, so you can make more money and heal more people.' His reply will be 'Do not hinder me What do you mean, 'more people?' My hands are full, day and night I care for those who come to me, who need me most and prove it by the act of seeking me. My time belongs to them, not to others who through indifference or ignorance may have no faith in me, though I

run after them I am too busy to experiment with plans and schemes I must heal the sick.'

"Whatever you do to the doctor you can not divest him of this privilege, responsibility, and prerogative which, at long last, is what matters most to him and to you

"So now I leave with you, members of the jury, the fate of the accused. Do with him as you will Do with him as you must, under the law and the evidence, remembering, as you consider your verdict, that it will be as momentous a decision for you as it will be for him, remembering that he brought you into the world and helped to keep you here"

* * *

Thus might the doctor's advocate present his defense at the bar of public opinion

We all await the verdict!

FIRST INTERNATIONAL CONFERENCE ON FEVER THERAPY

The First International Conference on Fever Therapy will hold its sessions on March 29, 30, and 31, at the College of Physicians and Surgeons, Columbia University, New York City The first day will be devoted to the discussion of physiology, pathology, and methods of production of fever Dr Frank W Hartman, Henry Ford Hospital, Detroit, is Chairman of the Committee arranging this section of the program, and Dr Charles A Doan of Ohio State University is Secretary

The second day is to be spent in the consideration of miscellaneous diseases treated by fever, such as chorea, rheumatic carditis, ocular diseases, arthritis, leprosy, meningococcus infections, undulant fever, tuberculosis, tumors, skin diseases, etc. This session will be arranged by Dr Clarence A Neymann, 104 South Michigan Boulevard, Chicago, with the assistance of Dr Frank H Krusen, Mayo Clinic, Rochester, Minnesota, as Secretary

The morning of the third day is to be devoted to the consideration of syphilis Dr

Walter M Simpson, Miami Valley Hospital, Dayton, Ohio, is Chairman of this section, which has as its Secretary Dr Leland E. Hinsie, New York State Psychiatric Institute, New York City In the afternoon of the same day, the treatment of gonorrhea by fever is to be discussed under the chairmanship of Dr Stafford L Warren, Strong Memorial Hospital, University of Rochester, Rochester, N Y The Secretary of this committee is Dr Charles M Carpenter, Rochester, N Y

Those desiring to participate are requested to communicate with the Chairman of the Section in which they are interested The manuscripts of all papers must be submitted to the appropriate chairman before February 1 Selection for the program will be made by February 15

All who plan to attend the Conference are urged to register promptly with the General Secretary, Dr William Bierman, 471 Park Avenue, New York City The registration fee is \$15 00

Schenectady and Utica hold banner positions in the table of deaths from automobile accidents with no "deaths due to accidents in the city" in the four weeks ending Nov 21,

the latest report In the 58 weeks, too, ending on that date, Schenectady had only 10 and Utica only 9 The highest death-rates are in the Pacific Coast cities

PNEUMONIA CONTROL PROGRAM

Prize for Report on Cases of Pneumonia

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the NEW YORK STATE JOURNAL OF MEDICINE

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1

Address further inquiry to

Dr. Edward S. Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N. Y.

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings to this department one month in advance, for the information of members who may be interested

Albany County

DR CHARLES A PERRY, head of the medical department of Memorial Hospital, has been elected president of the Medical Society of the County of Albany. A native of Rome, Dr Perry received his professional education in Albany Medical College, graduating in 1914.

During the World War he served as medical officer in the Quartermaster Corps at New York City. After his discharge he started practice in Albany.

Others elected include Dr Otto A Faust, vice-president, Dr Homer L. Nehms, secretary, Dr Francis E Vosburgh, treasurer, Dr Raymond R Kireher, Dr Arthur M Dickinson, Dr William Rausch, Dr John E Heslin and Dr James S Lyons, censors, Dr Edgar A VanderVeer, Dr Frederick C Conway and Dr William P Howard, delegates, and Dr John J Clemmer, Dr Arthur J Wallingford and Dr C W Louis Hacker, alternates.

Bronx County

DR FOSTER FANNING POTTER, who had practiced medicine in Harlem and the Bronx for more than fifty years, died on Dec 18, after a few days' illness of pneumonia. He was in his eighty-fourth year.

Dr Potter had specialized in gynecology. He practiced in Harlem until about twenty years ago, when he moved to the University Heights section of the Bronx. He founded the Harlem School of Nursing in 1906.

THE "ANNUAL AFFAIR" of the Bronx County Medical Society will be held on Sunday, Jan 24, at 10 30 P M at the French Casino, 7th Ave and 50th St. Dress will be informal and tickets will be \$5 per person. Supper, dancing, and a show will be provided. The proceeds will go to the society's relief fund and the Physicians' Home.

Broome County

Following is a list of officers elected at the annual election December 8 of the Broome County Medical Society, reported by the Secretary, Dr Henry D Watson.

President, S M Allerton, Vice-President, Charles L Pope, Secretary, Victor W

Bergstrom, Treasurer, E R Dickson, Secretary Emeritus, Henry D Watson, Assistant Secretary, Rollin C Bates, Assistant Treasurer, E M Jones.

Censors: C M Allaben, S B Blakely, J J Cunningham, S D Molyneaux, C D Squires. Compensation Board: Blinn A Buell, D G Dudley and F M Miller.

Delegates: S M Allerton and G C Vogt. Alternate Delegates: P H Shaw and C H Lopping. Chairman Economic Committee, H I Johnston, Chairman Legislative Committee, C J Longstreet, Chairman Public Relations Committee, Blinn A Buell, Chairman Library Committee, S B Blakely, Chairman Membership Committee, C H Berlinghof, Chairman Milk Commission, P H Shaw, Chairman Public Health, Geo S Lape.

Cayuga County

DR DONALD M GREEN of Auburn was elected president of the Cayuga County Medical Society at its annual election of officers and banquet held in the Hotel Osborne on Dec 17. Dr L D Burlington was voted vice president, Dr S J Karpinski, secretary, and Dr W A Tucker, treasurer.

Dr G C Sincerbeaux, Dr H S Bull, Dr R C Almy, Dr W B Wilson, and Dr C T Yarrington were elected to the Board of Censors. Dr H S Bull was named as delegate to the State Medical Society convention with Dr G Perry Ross as alternate. Dr A K Bates was elected delegate to the Seventh District Branch of the Medical Society session with Dr H I Davenport as alternate.

The Medical Society went on record as strongly recommending the immediate vaccination of all children as a precautionary measure against the small-pox epidemic now appearing in Western New York.

Doctor Sincerbeaux, past president of the society, presided at the meeting and introduced the guest speaker, Dr Leonard Carmichael, dean of the College of Liberal Arts at the University of Rochester. Doctor Carmichael's topic was "The Psychology of Genius."

A social session, with dancing and bridge, followed the meeting.

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Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N. Y.

At the scientific session, Dr Tasker Howard explained autopsy procedures at hospitals, Dr Newton Thomas Saxl discussed the activities of the Police Athletic League of which he is medical director, and Dr Morris Fishbein, editor of the *Journal of the American Medical Association*, spoke on new forms of medical practice.

An ophthalmological exhibit was presented to the society by the Central Medical Council in honor of Dr Joachim, retiring president.

Other officers elected were Drs Augustus L Harris, vice president, Joseph Raphael, secretary, Thomas B Wood, assistant secretary, Maurice J Dattelbaum, treasurer, Arthur C Holzman, assistant treasurer, J C Rushmore, librarian, and Edwin P Maynard Jr, curator.

Trustees chosen were Drs Frank L Babbott, William Browning and Henry Joachim. New censors are Drs Charles A Anderson, Eugene R. Marzullo, William C Meagher and Joseph Rosenthal.

THE WOMAN'S AUXILIARY TO THE Medical Society of the County of Kings held its annual meeting for the election of officers and Christmas celebration on Dec 8 at the Medical Society Building. The officers re-elected were Mrs Griffin, president, Mrs S Lloyd Fisher, first vice president, Mrs Frederick E Elliott, second vice president, Mrs Milton B Bergman, recording secretary, Mrs Louis Harris, associate secretary, Mrs George H Smith, treasurer, Mrs Milton I Strahl, associate treasurer, Mrs James Steel and Mrs Irving J Sands, directors for three years. The delegates to the State convention are Mrs Charles Goodrich, Mrs Irving Sands and Mrs Charles Gordon.

Delegates and alternates elected to the convention at Rochester, N Y, next May are Mrs William E Lippold, Mrs Marius Abbene, Mrs W Reynolds Shetterly, Mrs George H Smith, Mrs Charles Scofield, Mrs Joseph L'Episcopo, Mrs John J Black, Mrs Louis Harris, Mrs Paul C Eschweiler and Mrs Philip Lombard.

THE FOLLOWING ARE THE newly elected officers of the Section on Physical Therapy, Kings County Medical Society, for 1937: President, Samuel A Warshaw, M D, vice-president, Nathan Goldstein, M D, secretary, H Tevel Zankel, M D, board of governors, Charles Francis McCarthy, M D, John Hauff, M D, and Jerome Weiss, M D.

Montgomery County

THE ANNUAL MEETING OF the Medical Society of the County of Montgomery was

held on Dec 9 at Amsterdam, preceded by a complimentary dinner enjoyed by practically the entire membership.

Dr Hicks, chairman of the nominating committee, presented the report of that committee which resulted in the election of the following officers: Dr A J Townley, president, Dr E A Bogdan, vice president, Dr William R. Pierce, secretary, re-elected, Dr S L Homrighouse, treasurer, Dr W H Seward and Dr R C Simpson, and Dr W R Rathbun censors, Dr H M Hicks, delegate to the Medical Society of the State of New York, Dr E. C LaPorte, delegate to the Fourth District branch. Dr Pierce has been secretary for thirty years.

Nassau County

MRS A M BELL was re-elected president of the Ladies' Auxiliary to the Medical Society of Nassau County at its meeting on Dec 15 at the Nassau Hospital auditorium. Other officers for the year will be Mrs L M Lally, first vice president, Mrs Luther Kice, second vice president, Mrs H L Hirsch, recording secretary, Mrs N L Robin, corresponding secretary, and Mrs Quintard Taylor, treasurer. Board members are Mrs P A Williams, Mrs Benjamin W Seaman and Mrs H B Smith.

Delegates to the convention at Rochester in May will be Mrs H F Gillette, Mrs Benjamin W Seaman, Mrs F W Fry, Mrs C J Welge and Mrs A C Martin. Alternates will be Mrs R. E Lease, Mrs W Taylor Chamberlin, Mrs G R Nodine and Mrs N R. Robin.

THE STATUS OF SMALLPOX vaccination in Nassau County is declared "extremely bad" by Dr Howard M Phipps, President of the County Medical Society. He adds "If an outbreak were to occur in Nassau County it would find us with probably not more than ten per cent of our population protected, and one case of virulent type of the disease might start an epidemic such as this county has never seen."

"All persons who have not been vaccinated within the past five years are urged to seek this protection immediately. Certainly the parents of young children should not postpone securing this treatment."

New York County

DR. JOHN HOWARD NORTHRUP, of the Rockefeller Institute for Medical Research, will receive the sixteenth award of the Charles Frederick Chandler Medal of Columbia University, on the centennial of the birth of the founder of the American Chemical Society, it is announced by Dr

Chautauqua County

A "PHYSICIANS' EXCHANGE," similar to those now in operation in many other communities, has been opened and is expected to prove of material advantage to Dunkirk-Fredonia doctors as well as their patients.

When a physician leaves his office during the afternoon or evening, he calls the exchange and states his probable location for the next few hours. Any of his patients who wish to contact him merely call the exchange and the message will be relayed to him immediately.

With this system in force, physicians will feel more at liberty to take time off from their daily routine. Members of the doctors' families or office help will not be required at all times for answering telephone calls.

Cortland County

THE CORTLAND COUNTY Medical Society met on Dec. 18 and elected the following officers: President, Dr. William F. Newcomb, vice president, William A. Shay, secretary, Dr. O. E. White, treasurer, Dr. B. R. Parsons, delegate to state convention, Dr. D. R. Reilly, alternate, Dr. J. E. Wattenberg, board of censors, Dr. J. E. Wattenberg, Dr. C. D. VerNooy, Dr. A. M. Loope, Dr. M. R. French, Dr. C. E. Chapin.

Following the election, Dr. French gave a talk on smallpox, particularly the Dansville-Hornell epidemic.

Erie County

THE ANNUAL ELECTION of the Erie County Medical Society on Dec. 21 resulted in the unanimous choice of Dr. John T. Donovan as president, Dr. Harry C. Guess, vice president, Dr. Louise W. Beamis, secretary, Dr. James L. Gallagher, chairman, legislation committee, Dr. Joseph C. O'Gorman, economics, Dr. Allen R. Long, membership. All were unopposed.

Delegates to the state society were elected as follows: Dr. James H. Borrell, Dr. Guess, Dr. J. Herbert Donnelly, Dr. Thurber Le Win. Alternates are Dr. Roy L. Scott, Dr. John Burke, Dr. Robert E. De Ceu and Dr. W. Warren Britt.

A board of censors, all unopposed, includes Dr. Charles W. Bethune, Dr. Francis E. Fronczak, Dr. Michael A. Sullivan, Dr. Abram L. Weil and Dr. Francis J. Butlak.

Dr. Nelson W. Strohm was elected chairman of the public health committee over Dr. Russell H. Wilcox.

Dr. Mesco J. Helminiak, member of the City Hospital Board of Managers, was de-

feated for second vice president by Dr. Carlton E. Wertz by a vote of 295 to 115, while Dr. William F. Jacobs, hospital pathologist, lost to Dr. Caryl A. Koch in the contest for treasurer by a vote of 283 to 121.

On recommendation of Dr. John H. Evans, professor of anesthesia at the University of Buffalo School of Medicine, who drew up the plan, the members voted approval to the City hospital's proposal to seek a budgetary appropriation of \$17,396 for the school, which would train interns, students of medicine, and practicing physicians in anesthesia.

The proposal calls for a staff of eight resident anesthetists, headed by the University of Buffalo professor of anesthesia at a salary of \$6,000 a year. An assistant chief anesthetist would receive \$4,000 a year and other salaries would range from \$708 to \$924 annually.

The society also voted to constitute its Comitia Minora a board of censorship for all releases to the press, either by the society as a whole or by individual members.

Herkimer County

HERKIMER COUNTY MEDICAL SOCIETY, at its annual meeting and banquet on Dec. 8 elected Dr. J. J. McEvilly, president for the coming year.

Other officers: First vicepresident, Dr. James F. Gallo, second vicepresident, Dr. G. A. Burgin, third vicepresident, Dr. G. J. Frank, secretary, Dr. F. C. Sabin, treasurer, Dr. A. L. Fagan, U. G. Williams was renamed librarian.

The censors chosen are Dr. A. W. Vickers, Dr. H. J. Sheffield, Dr. H. C. Murray, Dr. L. P. Jones, and Dr. H. F. Buckbee. The latter is the retiring president.

Dr. J. J. McEvilly was chosen delegate to the Medical Society state meeting with Dr. Gallo as alternate.

Jefferson County

THE REGULAR MEETING of the Medical Society of Jefferson county was held on Dec. 10 at the Black River Valley club. "The Therapeutic Program at the Saratoga Spa," was the subject of Dr. Walter B. McClelland, medical director of the Saratoga Springs commission.

Kings County

DR. JOHN B. D'ALBORA WAS ELECTED president of the Kings County Medical Society at its annual meeting on Dec. 15. He succeeds Dr. Henry Joachim.

The officers, all of whom took office for the first time last year, are Dr William C Buntin, president, Dr Frederick M Schward, vice-president, Dr John J Goller, secretary, and Dr Curtis J Becker, treasurer. Dr Buntin announced that all present committees would be retained.

Suffolk County

DR. STANLEY P JONES is the new president of the Suffolk County Medical Society, having been elected at the annual meeting held in Riverhead. Dr Jones was first vice-president and succeeds Dr David L MacDonell.

Other officers elected include Dr Earl M McCoy, first vice-president, Dr W W Gardner, second vice-president, Dr Edwin P Kolb, secretary, and Dr Grover A Silliman, treasurer.

Dr Coburn A L Campbell and Dr John L Sengstack were elected delegates to the State convention, and Drs L MacDonell and Earl M McCoy were named delegates to the second district branch.

Censors elected were Drs Paul Nugent, Frank McGilvery, Victor K. Young, Warren Eller, and Leon Barber.

Tompkins County

THE DESTINIES OF THE Tompkins County Medical Society will be guided for the coming year by Dr William F Lee. Doctor Lee was named president at the annual meeting on Dec. 15.

Other officers elected were Dr H J Wilson, vicepresident, Dr B F Hauenstein, secretary-treasurer, Doctors W L Seil, David Robb, H L VanPelt, J W Judd, and V A Van Volkenburgh, censors. Dr Norman S Moore will be delegate to the State Medical Society.

The constitution was amended to read that meetings will be held quarterly instead of monthly.

Wayne County

APPROVAL OF A COUNTY MEDICAL laboratory to be located at Newark State School and a resolution to include the \$1,200 as the county's share of the \$2,400 necessary to operate it, was voted 13 to 1 by Wayne County Board of Supervisors on Dec. 1.

This is considered one of the greatest steps ever made by the county toward better health and increased medical protection. Plan for the laboratory, to be used freely by all doctors in the county, was backed by a committee of the Wayne County Medical Society, headed by Dr F C Donnelly of Newark.

According to Dr Donnelly, establishment of the "lab" will be accomplished at far cheaper cost than any other county has expended for a similar purpose. It will be operated in conjunction with the regular laboratory of the State School, through the generosity of Dr Charles L Vaux, superintendent, and cooperation of Dr Edwin Baumgartner, pathologist.

This lab will be housed in the recently constructed state school hospital building. Cost of maintenance will be \$2,400, of which the state and county will each pay half. This cost will be only for additional help and equipment required in handling tests for doctors of the county.

Dr Donnelly stated that it was one of the best things ever done for Wayne residents. "Heretofore," he said, "physicians who were near enough could take their tests to the state school lab and were accommodated, but the patient had to stand the expense. In cases of poor and needy families, although Dr Baumgartner co-operated 100 per cent in giving many his services gratis, it was becoming harder to take care of them."

"With this new set-up we may have tests made for pneumonia, get the proper serum, and administer it within two or three hours, with recovery starting next day. This is a time saving that may mean the difference between life and death. And the financially poorer class can receive this benefit too."

The new laboratory is completely equipped for nearly every type of test required, tests that often forced doctors to wait several days while they were made by the state health department in Albany. It is expected that one additional assistant will be added to Dr Baumgartner's lab staff and some further equipment purchased to handle tests for doctors.

Westchester County

TECHNICAL DISCUSSIONS OF MEDICAL legislation and compensation laws were heard by sixty members of the Mount Vernon Medical Society at the December meeting. Dr E B Sullivan presided.

Speakers included Dr Frederick E Elliott, chairman of the economic committee of the Medical Society of the State of New York, who spoke on "Problems in Medical Economics", Dr David J Kaliski, chairman of the committee on workmen's compensation of the New York Medical Society, whose subject was "The Workmen's Compensation Law," and Dr John B Lauricella, medical director of the State Insurance Fund, who discussed "The Compensation Insurance Carrier and the Physician."

Nicholas Murray Butler, president of the university

Dr Northrup, who, as winner of the award, will deliver the annual Chandler lecture next spring, was cited for fundamental discoveries concerning bacteria, the constitution of protein, and the chemistry of digestion

Niagara County

DR CLYDE W GEORGE, assistant superintendent of the Niagara Sanatorium, was elected president of the Niagara County Medical society at a meeting on Dec 8 Dr George has been secretary for the past two years

Dr Nicholas I Ardan, was chosen vice-president, Dr Forrest W Barry, secretary-treasurer and Dr R R B FitzGerald, a member of the board of censors

Dr Floyd S Winslow, president of the State society, speaking after the business meeting, said that the American Medical association is convinced that the present system of medical practice remains the best.

Dr Winslow explained that although twelve states have declared for a basic science law for qualifying doctors, the New York State association is opposed to it "because it would legalize practice of medicine by chiropractors"

Oneida County

DR M T POWERS is slated for election as president of the Utica Academy of Medicine to succeed Dr T Wood Clarke

He was nominated Dec 17 at the largest meeting ever held by the academy, more than one hundred physicians and surgeons attending

Dr Temple Fay of Philadelphia, one of the outstanding neurosurgeons of the country, presented a paper on "Spinal Drainage, Its Role in Cerebral Problems," and so many questions were asked that he spoke till after midnight.

Dr F M Miller Sr chairman of the nominating committee, presented this slate for the election Jan 21 President, Dr M T Powers, vice-president, Dr William W Wright, secretary, Dr F M Miller Jr, treasurer, Dr H D Parkhurst, trustees, Dr Fred E Sabin, Dr Rose D Helmer, and Dr R C Borst Three trustees hold over, Dr J L Golly, Dr John F Kelly and Dr F M Miller Sr

Dr Wiliam C Jensen, read a paper on "Lung Abscess and Bronchiectasis Secondary to Pulmonary Carcinoma"

Onondaga County

DR JAMES K QUIGLEY, chief obstetrician

of General Hospital, spoke before the final meeting of the obstetrics symposium of Onondaga County physicians Dec. 10 in St. Joseph's Hospital, Syracuse. Doctor Quigley, chairman of the maternal welfare committees of New York State Medical Society and Monroe County Medical Society, spoke on "Normal Labor"

Ontario County

"MENTAL ASPECTS OF THE AVERAGE PATIENT" was the subject of a paper by Dr Robert M Ross, of Brigham Hall, on Dec 10 at a meeting of Canandaigua Medical Society Dr Frederick C McClellan was host at dinner preceding the business session and program Dr A M Mead, was host for the annual meeting Jan 14 when Dr J F McAmmond gave the president's address

Orange County

DR J EMERSON NOLL was elected president of the Orange County Medical Society at the annual meeting in Middletown, on Dec. 8

Other officers elected were vicepresident, Dr Harry Pohlman, and secretary Dr E C Waterbury The Board of Censors includes Dr Daniel I O'Leary, Dr Walter Hursemann, Dr J Morrison and Dr Russell Schmitt

Dr George V Carneal, instructor of surgery at Columbia University, spoke on "Treatment of Varicose Veins and Ulcers."

Rensselaer County

DR STEPHEN H CURTIS was elected president of the Rensselaer County Medical Society at the Society's annual meeting Dec 8 Other officers chosen were Vice president, Dr Hugh V Foley, treasurer, Dr John F Russell, re-elected, secretary Dr Leo S Weinstein, re-elected, censors, Dr William M Trotter and Dr Charles W Hamm, delegates, Dr John D Carroll and Dr W B D VanAuken, and alternates, Dr George D Hoffeld and Dr G Elmer Martin

The new officers assumed their duties at the annual dinner the next evening, in the Hendrick Hudson hotel in Troy An illustrated lecture on "The Relief of High Blood Pressure Through Surgical Treatment," was given by Dr George W Crile, of Cleveland, Ohio

Richmond County

THE RICHMOND COUNTY MEDICAL Society renamed its entire staff of officers, delegates and committees at a meeting on Dec. 9

hospitals will be the only institutions in which nurses can receive their training. Whether such training is apprentice training, as much of it must be, or academic, as some of it will be, the hospital remains the laboratory and school for the nurse.

The purpose of the hospitals in training nurses is primarily for the care of the sick either in the hospital or the home. Ninety-five per cent of the cost of such training comes from the revenues of the hospitals, a very large portion of which is provided by the patient who pays for his hospital care. With the lengthening program for the education of the nurse, together with the added instructional facilities to educate and prepare the nurse for specialized fields, the hospitals are finding it increasingly difficult to operate their training schools. Many are employing graduate nurses for supervisory services and, because they cannot secure graduates for floor duty and other services, are adding maids to do the menial part of the work and glorifying them by calling them nurse aides.

In the past one of the main compensations the hospital received from operating its training school was the assurance of having a constant supply of its own graduates to staff its nursing service. In recent years this compensation seems to be denied, for out of the 18,500 nurses who are graduated each year less than one-fourth of that number enter institutional work.

The hospitals have been and still are the largest employers of graduate nurses. In the depression period 60,000 nurses were constantly employed in our institutions. In normal times this number is increased to 70,000.

There is approximately a constant of

160,000 graduate nurses available for employment. Five years ago 5000 of this number were employed as public welfare nurses today 20,000 are so employed and if reports are correct 50,000 are needed. The question immediately presents itself, "Just how much is the responsibility of the hospital to train the public welfare nurse in her particular specialty?" Twenty thousand more graduate nurses are employed in physicians' offices, 20,000 in industrial plants and commercial houses, 4000 as nurse anesthetists and probably 6000 more in activities not listed above, a total (including the 60,000 employed by hospitals) of 110,000, leaving but 50,000 nurses to care for the sick in homes throughout the country.

The maid in the hospital who is intelligent and who becomes the nurses' aide will, after a year or two, begin to seek employment in the homes of the sick as a practical nurse, and many will be employed. One hundred thousand practical nurses are being so employed at present. The training of nurse aides will inevitably increase the number of practical nurses, who will compete for employment with the graduate nurse.

Hospitals want nurses trained properly. They want the intelligent student in training and the competent graduate to serve their patients. They will go just as far in developing the program for the education of the nurse as their financial resources will permit. They must have well-trained, qualified graduates for their nursing service. It is very doubtful whether it is the function of the hospital, certainly it is not the responsibility, to educate the nurse for service in highly specialized fields of nursing.

American "Hospital"-ity

HOSPITAL AND HOSPITALITY both derive, of course, from the same Old French root, going back to the Low Latin "hospes," a guest. So when Sir Lenthal Cheatele tells of his experience as a guest of our hospital authorities in this country, the *London Times* appropriately captions his letter "American Hospitality." Sir Lenthal writes

"Will you allow me to give you an example of the hospitality I received when I

was lately in America?

"The Hine Hospital of Chicago is a famous Government institution, to the staff of which only American citizens are appointed. To make it possible for me to lecture there the American Government made me a temporary consulting surgeon, and for a week made me an American citizen.

"May I take this opportunity of expressing my pride and gratitude for this unique honour?"

Hospital News

"Optimism for 1937"

THAT WAS THE NOTE SOUNDED in his inaugural address by Dr C W Munger, of Grasslands Hospital, when he became President of the American Hospital Association at Cleveland at its annual convention. In sounding this "note of optimism for 1937" in the hospital world, Dr Munger declared, as his address is "digested" in the *Westchester Medical Bulletin* "We who have lived through the depression cannot ever forget it, but in recent months I have found unmistakable signs of improvement in the hospital situation. Occupancy figures are climbing, almost without exception, municipalities are coming nearer to paying cost for care of the indigent, semi-private and private rooms are being reoccupied, and business is far above the level of a few years ago."

Dr Munger suggested, nevertheless that hospital management "take stock, now, of the quality of the work our hospitals are doing, and be ready, no long time hence, to come out of the red both in grade of service and in finance."

Turning to the much debated subject of anesthesia in hospitals, Dr Munger pointed out that while the A. H. A. should continue to maintain "an impartial attitude" toward the question of nurse-versus physician-anesthetist, nevertheless "with the advent of spinal intravenous and other routes for the introduction of anesthetic agents, the plot has thickened, and these newer methods will bring the physician into a progressively more prominent position in the field of hospital anesthesia."

"It is time," he said, "for every hospital to take stock of the efficiency and safety of its anesthetic work,"—and recommended consideration of the plan of a combined department embracing anesthesia, resuscitation, prolonged artificial respiration, oxygen therapy, and other gas therapies, as suggested by Dr P J Flagg and the Society of the Prevention of Asphyxial Death.

Dr Munger also spoke of the need of overhauling the hospital residency program to keep pace with "the rapid development of Examining Boards and standards for the specialist's preparation by all of the principal medical specialties",—the importance of hospital publicity, "for the purpose of stimulating the support of hospitals by donations from the public",—and urged, also that more attention be given to "the encouragement of real hospital social service work, quite aside from the function of financial investigation."

"Last," he said, "let me mention the importance of continuance of the best possible cooperation with the American Medical Association, American College of Surgeons, Public Health Association, and similar groups within the medical profession. With out them, we are helpless. They are rapidly realizing how important we are to their aims."

Dr Munger's well-deserved recognition by the hospital association, says his home-county *Bulletin* in conclusion, is a source of great satisfaction to his colleagues and associates throughout the County.

The Disturbing Scarcity of Nurses

HOSPITALS IN MANY PARTS of the country have been having difficulty of late in securing enough competent registered nurses for floor and supervisory duty. Fewer training schools, longer training courses, the decrease in the number of graduates from a peak of 24,000 annually to 18,500 at present, and the reduction in salaries, together

with the greatly increased employment of nurses in positions remotely connected with the bedside care of the patient are the contributing factors to the situation that is becoming increasingly difficult, according to a thoughtful editorial which appeared recently in *Hospitals*.

In the past, as well as for the future,

237 agencies occupied with public health nursing," Dr Rappelye said "There are between 140 and 160 general hospitals. These hospitals give treatments totaling 12,000,000 patient days at a cost of about \$5 a day, or \$60,000,000 a year. Probably five per cent of the people treated could be cared for adequately by home service at a cost of \$1 to \$1.20 a day.

"The city needs about 2,000 more public health nurses and a co-ordination of their activities with the hospitals. The community is going to be increasingly responsible for community health."

DR JOHN L. RICE, City Health Commissioner, speaking at the recent twenty-fifth anniversary dinner of the Lutheran Hospital of Manhattan, urged hospitals to take greater interest in preventive education and in the treatment of diseases in the early stages. The dinner, held at the Hotel Astor, was attended by 500 persons.

"New York City's birth rate is falling, so we must take better care of the babies we have," Dr Rice said. "There is no better place than the hospital where the baby is born to impress the parents with the importance of immunization against diphtheria. Each year about 1,000 die from appendicitis—we must do better there."

"The maternity picture is not very good in New York. Too many mothers are dying, and there must be improvement there. It seems to me the hospitals are missing one of their biggest opportunities for public service in not stressing preventive medicine more."

Both Dr Rice and Dr S. S. Goldwater, Commissioner of Hospitals, praised the hospital, located at 343 Convent Avenue,

for its fine record and growth. Dr Goldwater remarked that the hospital had started chiefly to give service in the home, a service to which other hospitals are now turning.

THE NEW CANCER CLINIC at the White Plains Hospital was officially opened October 9. This clinic, equipped with the most modern deep therapy apparatus was made possible by the generous gift of an anonymous donor, according to an announcement by Mr. John W. Appel, President of the Hospital. The cancer service at White Plains Hospital is carried on in direct co-operation with the Memorial Hospital of New York City. To further this relationship, Dr. Fred W. Stewart has been appointed consulting pathologist and Dr. Hayes E. Martin, consulting surgeon, both of whom are on the staff of Memorial Hospital. Dr. Alfred T. Hocker, a former member of the Memorial Staff has been appointed associate radiologist. Dr. R. D. Duckworth will serve as attending radiologist. The new apparatus, a 200 K. V. machine is placed in a room entirely sheathed in lead sheets.

THE BOARD OF GOVERNORS of the New Rochelle Hospital has recently announced the election of Mr. Albert L. Viles of New Rochelle as its new President, succeeding Mr. Ralph S. Kent who resigned the Presidency of New Rochelle Hospital after ten years of service. Mr. Viles, President of the Rubber Association of New York City has had a long and successful experience in hospital work, but he will have a very difficult task to equal the outstanding achievements that have marked Mr. Kent's Presidency.

NEW INDUSTRIAL HYGIENE LAB

The Laboratory of Industrial Hygiene has been incorporated under the laws of the State of New York as a nonprofit organization empowered to carry on scientific and industrial work in chemical, bacteriological, and, in general, public health problems, to accept grants for definite scientific purposes, etc. Its officers include Dr. William Hallock Park, President, Miss Grace McGuire, M. A., Secretary, and Dr. K. George Falk, Vice-president and Treasurer. Its staff includes Miss Grace McGuire, in charge of

chemical work, Mrs. Eugenia Valentine Colwell in charge of bacteriological work, Dr. K. George Falk, Director, Dr. William Hallock Park, Consultant, and a number of assistants.

The laboratory includes at the present time the following units: (1) Certified Milk Laboratory under the direct supervision of Dr. Park, (2) Vitamin Testing Laboratory, (3) Clinical Diagnostic Laboratory, (4) Chemical Laboratory and (5) Bacteriological Laboratory.

Hospital Notes

DR. JOSEPH JACOBSON, of Kingston, was unanimously chosen by the Board of Supervisors in December to be a member of the Board of Managers of the Ulster County Tuberculosis Hospital.

DR. WILLIAM E. MORRIS, thirty-six, chief Roentgenologist at Grasslands Hospital, Eastview, died there Dec. 10 from an abscess of the brain. He had been ill for three days.

He was born in Decatur, Texas, and attended the University of Texas. After serving in the U. S. Navy during the World War, Dr. Morris practiced privately, and in 1929 joined the staff at Grasslands. In 1933 he was appointed head of the x-ray department at Grasslands and recently took over similar duties at the Northern Westchester Hospital in Mount Kisco.

Dr. Morris was a member of the American College of Radiology and had conducted research in deep therapy for the treatment of cancer.

He is survived by his widow, Dr. Joyce Springer Morris. They lived in Mount Kisco.

A BRONZE BUST of the late Dr. William Francis Honan, for forty years Professor of Surgery at the New York Medical College and Flower Hospital, was presented to the trustees of the college Dec. 15 by the senior class at a ceremony in the senior lecture room of the college, 450 East Sixty-fourth Street. The bust is the work of Leonard Rubin, a senior medical student. Dr. Honan died a year ago.

Charles B. Tramont made the presentation. Charles D. Halsey, president of the board of trustees, in a brief acceptance speech praised Dr. Honan as "a man wholeheartedly devoted to the greatest heritage of medicine." Brief talks on the life and career of Dr. Honan were made by Dr. Arthur R. Grant, Dr. Samuel B. Moore and the Rev. Edmund M. Wylie.

SOMEBODY SUGGESTED IN PARIS recently that the surplus unsold garden produce thrown away every day at the central markets be given to the hospitals, but the market gardeners objected, made demonstrations, started riots. The truck gardeners agree that if hospitals and institutions think

they have any chance of getting their vegetables free, they will no longer buy any. This means that prices are depressed and sales are increased. They say there is no reason why they should be obliged to furnish free food for charitable purposes.

ANYONE IN NORTH BRAZIL injured in an accident in a Ford car will receive free medical and surgical attention at the new hospital in Rio de Janeiro being built by the University of the Federal Capital. The university is seeking permission to name the hospital "Henry Ford," in recognition of the manufacturer's contribution toward development, economic improvement, sanitation, and general welfare in the northern part of Brazil.

ACCORDING TO THE American Hospital Association only twenty-five per cent of all hospitals throughout the United States having a bed capacity of 200 or more have a dental service. Approximately 250 hospitals have a well defined dental service. Of the patients in wards, ninety-five per cent are in need of dental attention.

A COMBINATION COLLEGE and vocational school has grown up at Butler Hospital, an institution for the care of the mentally ill, at Providence, R. I. Instruction is offered in almost any subject desired, if it will build up confidence and ability in the patient, for the hospital recognizes the principle that learning should never cease.

DR. WILLARD COLE RAPPLEYE, dean of the College of Physicians and Surgeons of Columbia University, said a few weeks ago in an address on the need for coordinating public health nursing and hospitalization that home treatment of some of the patients now treated at the general hospitals would save the city approximately \$2,400,000 a year.

Dr. Rappleye spoke at the home of Mrs. John V. Bouvier 3d, 740 Park Avenue, at a meeting of the New York City silver jubilee committee of the National Organization for Public Health Nursing. Plans were made for the celebration of the twenty-fifth anniversary of the national organization.

"A recent survey in New York City shows

of silver nitrate solution and neo silval Part of his testimony on cross-examination was as follows

Q When you start out with the treatment, it is proper to use an astringent and wash to reduce the inflammation and swelling?

A Yes, sir

Q And use boric acid as a washing solution?

A Yes, sir

Q When you start in to treat the germ itself, the use of neo silval would be proper? A. It is used by a good many

Q It is a recognized, standard, proper treatment, is it not? A. Well, it is used

Q You would not say its use was improper in any way, shape or form? A No, sir

Q You would not say that any person using that was not using the proper ingredient? A. It might be used

Q Now doctor, you made the statement on the stand with respect to the nature of the disease that existed with respect to this eye, if I understood it correctly, it was that regardless of the treatment that might be given to a person, it would be perfectly possible to lose the sight of the eye if he had the disease in question? A. Yes, sir

At the close of the plaintiff's evidence the Trial Court granted judgment in favor of the defendant, and from that judgment the plaintiff appealed

The Appellate Court determined that the ruling in favor of the defendant had been proper, and affirmed the judgment. In so ruling the Court stated the reasons for its decision as follows

After a careful study of the several briefs filed by counsel for plaintiff, we have concluded that they rely upon the following omissions to establish the negligence of defendant (1) Failure to cap plaintiff's right eye, (2) failure to take a smear from the left eye and have it tested, (3) failure to hospitalize plaintiff, (4) failure to use more energetic treatment on the eye. We will consider the several specifications in the order stated.

If we assume, without holding, that good practice required the defendant to cap plaintiff's right eye, the failure to do so furnishes no ground for a reversal of the judgment. That eye was not infected and was not injured in any way. The failure to cap it was neither a proximate nor a contributing cause of any injury suffered by plaintiff

Dr M was of the opinion that good practice required defendant to take a smear from the infected eye. It is admitted that one was not taken. According to this witness, the purposes of the smear and its examination are (1) to determine the nature of the infection, and (2) the nature of the treatment, the nature of the treatment being dependent on the nature of the infection and its virulency. Defendant recognized the nature of the infection at his first examination and Dr M admitted that this could be done. Therefore, the only merit in this contention would depend upon the pro-

priety and efficacy of the treatment administered by defendant which must be considered under the last ground urged for reversal

There is no evidence to support the argument that hospitalization was a necessary part of the treatment of the disease required by the standards of good practice of an eye specialist in and around E. The testimony of Dr M on this question, which we have quoted does not support any such conclusion. The only conclusion to be drawn from his evidence is that hospitalization is desirable and that the doctor himself did not see how a patient could properly irrigate his own infected eye. This falls far short of establishing that the standard treatment in E. required hospitalization of patients suffering from gonorrheal ophthalmia

When we analyze the evidence of Dr M on the question of the propriety of the treatment administered by the defendant, we find that his ultimate conclusion was contained in his statement that, "If I were treating such a case, I would want to have more energetic treatment. In this serious disease the outcome might be grave in any event." He testified that "there is a great difference in the opinion about the use of drugs" He specially said that each step in the treatment administered by defendant was proper. This did not establish that defendant did not bring to the case, and did not use in his treatment of plaintiff "that degree of skill and knowledge which is ordinarily possessed by those who devote special study and attention to that particular organ, injury or disease, its diagnosis and its treatment, in the same general locality, having regard to the state of scientific knowledge at the time." It only tended to prove that in the opinion of Dr M a method or mode of treatment, or measures used, other than those employed by defendant, might have had a better result. This is not sufficient to make out a case for plaintiff

Extraction of Teeth

A woman about forty years of age consulted a general practitioner, who conducted his practice in a rural community, with respect to various complaints. From time to time in the course of the treatment he rendered her he extracted six teeth and so far as the removal of certain teeth were concerned there were no complications

An action was instituted against the doctor on behalf of the patient in which the charge was made that three of the teeth extracted by the defendant were sound and that at the time he removed the teeth he was under the influence of intoxicating liquor. It was further claimed that the teeth were negligently removed so that plaintiff's jaw had become swollen and inflamed and the plaintiff developed a condition of neuritis. Subsequent to the time of the treatment, and prior to the commencement of the action,

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel Medical Society of the State of New York

Malpractice—Liability of Eye Specialist

A case passed upon very recently in one of the Pacific Coast States* presents an interesting situation in which a patient attempting to hold a physician responsible for the loss of an eye, failed to do so because it was impossible for him to produce sufficient evidence to establish that the doctor's handling of the case did not measure up to the proper standard of care.

The defendant in the action had engaged for twenty-five years in the practice of medicine as an eye, ear, nose, and throat specialist. Upon the trial he was called by the plaintiff as a witness to give his version of the facts. It seems that on May 22, 1933, the plaintiff came to him with a badly swollen and infected left eye. According to the defendant he examined the eye and diagnosed the condition as gonorrheal ophthalmia. Treatment that day consisted of irrigating and cleaning the eye, and painting the lids with one per cent silver nitrate solution. He told the patient of the danger of the condition. He advised continuous ice applications, and cleansing with salt or boric acid solutions. Also it seems that atropine solution was instilled in the eye, and the patient was given a prescription for a zinc sulphate solution with instructions for use every two hours. According to the defendant, on the next day in place of the latter solution he directed the use of a fifteen to twenty per cent solution of neo silval. The patient returned daily to the doctor for treatments until June 1, receiving similar treatments at each visit. On May 31 the defendant doctor diagnosed the presence of a corneal ulcer and painted the eye with a mercurochrome solution. The defendant did not take a laboratory test of any smear, for, as he testified, he was convinced throughout that he knew the nature of the infection. He did not order hospitalization, for the reason, he said, that plaintiff could not pay the expenses, and there was no free hospital available.

The plaintiff described the history of the treatment received and in most respects did not differ from the version of the doctor, outlined above. He did claim, however, that his right eye was never capped by de-

fendant and that he was not advised to enter a hospital although he had enough funds to take care of hospitalization if necessary. He testified that before he had consulted the defendant his eye had been painful for two days, and that he had used some argyrol as an eye lotion. He described the presence of pus in his eye when he first visited the defendant. The patient differed somewhat as to the date the use of neo silval was begun, but described having faithfully carried out all instructions. He told of daily visits to the defendant until June 1, and testified that on that day the doctor had told him "I am afraid your eye won't do you any good any more."

The following day the plaintiff went to another eye specialist in a neighboring city, a Dr. M., who removed the eye-ball on June 2.

Upon the trial the plaintiff called as a witness the said Dr. M. who stated that when he first attended the plaintiff the eye was in bad condition, full of pus, with a perforated cornea and a prolapsed iris. He took a smear, and a laboratory test showed that the infection was gonorrheal. According to Dr. M. at that time sight was destroyed beyond hope of restoration and for that reason the operation was performed. Hospitalization of a week was required, and some weeks of treatment were necessary to cure the infection in the socket. Dr. M. gave considerable testimony as an expert witness which indicated that his treatment would have been different, and that he did not approve the course of treatment pursued by the defendant. Upon the subject of the need for hospitalization he said "I believe that every man would preferably like to have his patient in a hospital for the treatment of this disease no matter where he is. Sometimes we cannot always put our patients where we want them. I do not see how any individual can take care of their own eye with this disease."

However, upon cross-examination the value of Dr. M.'s testimony for the purpose of establishing the plaintiff's case was lost. He testified that ice was a recognized treatment, that zinc sulphate could be used as an astringent, and that boric acid was a proper irrigation. He also endorsed the use

*Jensen v. Findlay, 62 Pac (2nd) 430

Across the Desk

Buffalo Doctors Have "Started Something"

A LITTLE SCENE AT three in the morning last winter, when the mercury was hiding down below the zero mark and the swirling snow was two feet deep in the streets of Buffalo, "started something" of enormous benefit to that city and of equal good to any other town that has the enterprise to follow a good example when it sees it. Two persons were battling through the drifts on that wintry morn, as the Buffalo papers are now telling the story

One was a doctor and the other a messenger boy. After ploughing through snow over their knees for almost a half hour trying to find the houses where they were to go, they gave up and retreated to the doctor's car to get warm before beginning the search all over.

In the car they swapped experiences about the difficulty of finding houses which either had no street numbers or ones which could not be read. They agreed something should be done about it. Something has been done.

Dr James L. Gallagher, 696 Broadway, chairman of the legislation committee of the Erie County Medical Society, was the doctor marooned on the street without house numbers. He took his complaint to the medical society and received unanimous support in starting a drive. The result is that thousands of homes and buildings in Buffalo were posted with four-inch house numbers, which will enable anyone to find them on a street with the least possible effort.

According to an estimate made by G. R. Clifford, a department manager for Weed & Co., at least 140,000 new house numbers were sold in Buffalo, just before the ordinance went into effect the latter part of last month.

The success of the campaign which really had its start on a cold morning last winter has startled pleasantly Dr Gallagher and the Erie County Medical Society which sponsored it.

Inquiries about how to start a similar drive have come to the county association from doctors in all parts of the state and *Medical Economics*, a national medical magazine, is urging physicians all over the country to follow the Buffalo plan.

"We are delighted with the response to our appeal," said Dr Gallagher. "There are at least 100 physicians on night calls about the city and many of them have reported to the society that they consider the new house numbering something of a blessing. We do not

think it worked hardship on anybody for the numbers cost only a trifle. But the benefits to physicians in time saving is enormous."

Besides the doctors' favorable comment on the new legible letters, taxi drivers, postmen new on routes, delivery men and clergymen have written letters to the medical association officers thanking them for starting the campaign.

The doctors are delighted, but they feel there is still some room for improvement.

"To make it perfect for night travel about the city something should be done to make it possible to read signs on street corners at night," said Dr Gallagher. "We feel that some of the WPA expenditures in Buffalo are to be commended in that they will benefit the citizens. The Roesch Stadium for instance will benefit Buffalonians several times in the year."

"The cost of just a corner of the stadium would buy reflectors to throw the street light back on the name plates. This would benefit the entire population of Buffalo and all its visitors 365 nights in the year," said Dr Gallagher.

The campaign to have every house and building in the city numbered with easily read letters is to continue. Houseowners who do not comply will be summoned to court. A maximum fine of \$25 may be imposed.

Dr Gallagher Tells the Story

We are fortunate enough to have a letter from Dr Gallagher himself, telling about the house-number campaign. He writes as follows to the Secretary of the Journal Management Committee

November 21, 1936

Peter Irving, M.D.
New York State Journal of Medicine,
33 W 42nd Street
New York City, N Y

My dear Dr Irving

I promised you the story of the Erie County Medical Society's campaign for legible numbers on all of Buffalo's buildings.

I believe that it will be of interest to all physicians, and of special interest to up state New York physicians, for I see about the same conditions as to house numbering in most of the up state cities and towns, that confronted us—and that was that it was nobody's business—and no one did anything about it.

The situation was that a number of some kind was placed on a house when it was built, if the owner happened to think it was necessary. It varied in size from one to three inches high,

the plaintiff had removed to a village approximately two hundred miles from the place where the defendant was engaged in the practice of his profession. The venue of the action which was instituted against the defendant was the County to which the plaintiff had removed. A motion was made on behalf of the defendant for an order changing the place of trial to the County where the defendant resided, particularly on the grounds of convenience of witnesses. The Court granted the said application. Thereafter the plaintiff's attorney never indicated any desire to bring the case on for trial but from time to time tried to bring about a settlement of the action. No offer of settlement was made on behalf of the defendant and the matter was finally terminated by a discontinuance of the action.

Broken Needle in Leg

A doctor engaged in general surgery was called to the hospital to attend a middle-aged man whose leg had been injured when a limb from a tree had fallen on him. X-rays were taken and it was ascertained that there was a comminuted fracture of the right tibia with a considerable amount of swelling and bruising and with the leg bowed outward. The doctor determined that an open operation was necessary to reduce the fracture. The following day the operation was performed and the bones were held into position with two separate wires. In inserting one of the wires the tip of a curved needle broke off but the point could not be recovered. The doctor decided against probing for it feeling that to do so would cause unnecessary trauma. A plaster

cast was applied which was permitted to remain on the leg for six weeks. It was found necessary at the end of that time to make an incision and replace one of the wires which had become loosened. A second cast was applied which was permitted to remain on the leg for a further period of time. About three months after the original injury under a local anesthesia the doctor took out the wires. The final result was that the patient had a good functional leg with no deformity in the foot, ankle or knee. The broken tip of the needle, however, remained imbedded in the leg. At the end of a reasonable length of time the patient was able to walk normally without a cane and to drive his car.

A malpractice action was brought against the surgeon in which the charge was made that he had been negligent in permitting the needle to break and the plaintiff claimed that as a result of said negligence it was necessary for him to undergo two subsequent operations for the purpose of having the needle removed.

The action came on for trial before a Court and Jury and it was established that the two subsequent operations were in fact performed by some other physician. The defendant in his testimony admitted that the needle broke. He also testified that the breaking of the needle was caused by no negligence on his part and that in his best judgment it was advisable to permit the needle to remain within the leg as he felt it would do no harm.

At the close of all the testimony, on motion of the attorney for the defendant the complaint was dismissed, the Court thereby exonerating defendant of all charges of malpractice.

NATIONAL SOCIAL HYGIENE DAY

Plans for the first National Social Hygiene Day, to be held February 3, are announced by the American Social Hygiene Association, of 50 West Fiftieth Street, New York City. On this day, state and community voluntary organizations interested in the control of syphilis and gonorrhea and other social hygiene problems, with the advice and approval of health authorities and the medical and allied professions, are planning to hold meetings all over the United States.

In New York City, the American Social Hygiene Association will hold its annual meeting on February third. Also the Social Hygiene Council of Greater New York will hold its Fifth Annual Regional Conference

at the Hotel Pennsylvania on the same day. It is expected that public leaders, including Surgeon General Parran, President Ray Lyman Wilbur of Stanford University, President of the American Social Hygiene Association and former Secretary of the Interior, will speak to these meetings. National agencies and many of their state and community organizations which include social hygiene activities in their yearly programs are planning to participate. It is probable that a nation-wide radio hook up will provide addresses of great importance from high government officials and civic leaders in different parts of the country as a climax to the activities of the First National Social Hygiene Day.

And Here is the Ordinance

In order to aid medical societies which plan similar campaigns in their own cities, it may be useful to quote Buffalo's ordinance, which resulted in making its streets easier to explore. It reads

It shall be the duty of every owner of a building in the City of Buffalo to cause to be displayed thereon the street number of said building, and at all times to maintain such number in compliance with the provision of this chapter (Section 1 of Chapter XXVII)

The figure or figures comprising said number shall be at least four inches in height and shall be placed on said building in such a

manner as to be legible plainly from the center of said street at all times between sunrise and sunset. The color of said figures shall be in sharp contrast to the color of their background. Such numbers shall be placed on the top riser of the steps leading to the front entrance of said building, or other permanent place on the front of the building

Any person, firm or corporation who violates any provision of this section shall be liable to a fine or penalty of not to exceed \$25

"Top riser" in the ordinance was opposed by the medical society because the number might be obscured by snow, but was inserted by the Corporation Counsel's office, which drew the ordinance

MEDICAL RELIEF TO SPANISH CIVIL WAR VICTIMS

An urgent humanitarian appeal for medical aid to the victims of Spain's Civil War has been addressed to physicians of this country by a national committee of eminent American members of the profession. This committee is sponsoring the work of the Medical Bureau of the American Friends of Spanish Democracy, 20 Vesey Street, New York City. The Medical Bureau is now organizing an American ambulance corps and a fifty-bed surgical hospital, the first unit of which is expected to leave this country within the next few weeks. A sanitation corps and a base hospital for civilians evacuated from Madrid is also planned.

Urging that the medical profession cooperate in this relief project, Walter B Cannon, professor of physiology, Harvard University Medical School, in a telegram to the Medical Bureau stated, "Anyone knowing the torments of war victims even under the most favorable conditions can imagine how pain and anguish are intensified by need and neglect. I sincerely trust that aid may be given to the suffering defenders of Spanish Democracy."

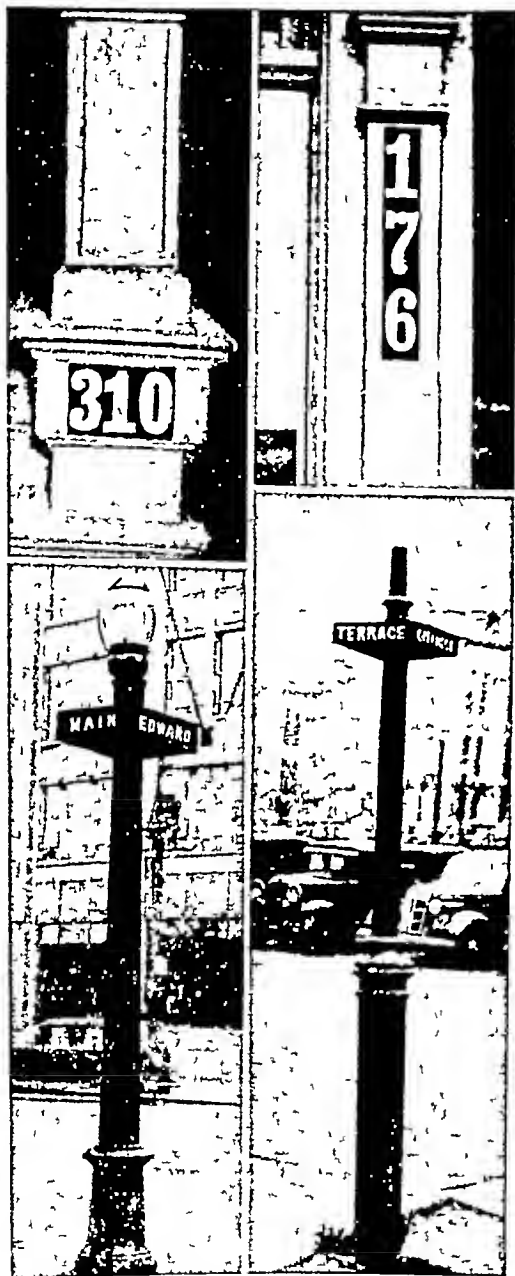
The Medical Bureau was created in this country in response to the Spanish Loyalists' Government plea for diphtheria toxoid to prevent a threatened epidemic among the children of Madrid following one of the early air raids. Since then the civilian population has been subjected to more harrowing experiences than the population of any other modern capital. With the destruction of hundreds of homes, thousands of refugees have been threatened with various epidemics.

Four specially constructed ambulances

have already been purchased with funds donated by American citizens. These, together with the fifty-bed surgical hospital staffed by American physicians, surgeons and nurses, will comprise the first unit. They are expected to leave for Spain within a month. The personnel is now being chosen from more than 120 volunteers by a special examining board of physicians and surgeons.

The national sponsoring committee includes the following prominent members of the profession: Drs Thomas Addis, Leland Stanford University Medical School, George Baehr, Ernst Boas, E M Bluestone, New York City, Walter B Cannon, Harvard University Medical School, Haven Emerson, Columbia University Medical School, Frederic A Gibbs, Harvard University Medical School, Samuel J Kopetzky, New York City, Samuel A Levine, Peter Bent Brigham Hospital, Boston, John P Peters, Yale University Medical School, William H Park, New York City, Henry E Sigerist, Johns Hopkins University, Institute of the History of Medicine.

Local committees for each borough have been organized and a special city-wide committee of physicians is now being created to handle the drive in New York City. Physicians who desire to aid are urged to communicate with the headquarters of the Medical Bureau at 20 Vesey Street, telephone Barclay 7-3811 or 3812. Money is needed to complete the equipment of the surgical hospital. Contributions are urgently solicited. Supplies such as diphtheria toxoid, typhoid vaccine, insulin, bandages and surgical instruments, transfusion sets, and sterilization equipment are also needed.



WITH THE PROBLEM OF POOR HOUSE-NUMBERS CONQUERED, THE NEXT OBJECTIVE IS IMPROVED STREET SIGNS

was placed wherever the owner happened to place it, and then forgotten. It was painted over when the house was painted, and if it fell off, it was not replaced.

The result was thousands of homes without a number of any kind, thousands more where it could not be found at night, and even at best, it was a go as you please affair, and never thought of by the owner or tenants

It was a real hardship for physicians and still worse for patients, for much valuable time was lost by both. Many tragedies have resulted from this loss of time spent while doctors were searching for numbers.

Our committee on Legislation put our society on record as requesting that something be done about this, first in the interest of the sick, and secondly—for the benefit of physicians—and the score of other classes of citizens whose occupation made it necessary to find numbers.

It came as a complete surprise to our society who had suffered so long but did not think of trying to correct it.

It came also as a complete surprise to the members of our Common Council who had not thought of its seriousness until it was pointed out to them—and when it was, I wish to say to their everlasting credit—every last one of them voted for it—the Mayor signed the ordinance—the Police commissioner saw to its enforcement and in ninety days, we had a city of six hundred thousand people with most of its ninety thousand homes displaying a four inch number—that can be seen day or night—from the center of the street.

And what a paradise it is for a doctor to drive along any street now—and read the house numbers from his automobile.

The numbers have cost from five to ten cents each. Anyone can manufacture them—anyone can sell them—so there is no question or possibility of monopoly or graft.

The plan called for a great deal of publicity of course, but we could not have put it over by our method without the help of the daily press.

Without the help of the press we would have been obliged to ask for a large appropriation—and an army of workers, and even if we got it—it would have taken two or three years to cover the city and would have cost the taxpayer one hundred times in taxes what it cost them to buy their own numbers.

I believe every doctor in the state would be interested in our story—and I think the Journal would be rendering our profession a great service in giving this little information as to how doctors might proceed to change conditions in their own cities and towns.

I am enclosing a few of the newspaper clippings—that will help you to summarize our plan—and our method of bringing it before the public.

Necessarily, as chairman of our committee on Legislation, I had to accept a great deal of unwanted publicity, but our members knew that someone had to accept it under our plan of promoting it, and they are very grateful to the newspapers who helped us so much, and to the Legislative Committee for what has been accomplished, and to the general public for their wonderful response to our appeal.

Yours very truly,

JAS L GALLAGHER, M.D

act and abridged form his ideas and views obtained in his encyclopedic work "Studies in the Psychology of Sex" in 7 volumes. For sheer erudition Ellis has no superior. The book begins with a consideration of the biological foundation of sex. He discusses the role various sensations play in the stages preparatory to the sexual act. Masturbation is treated as a broad biologic fact with sympathy and understanding. In the chapter on sexual deviations he discusses homosexuality, fetishism and various other abnormalities of sex, which he considers as symbolic representations of the sexual urge. Although he gives credit to Freud for his contributions to sexology, he does not entirely agree with his views. There is an abundance of sound advice to those who by virtue of sex frustration or other hindrances have developed neurotic symptoms. It is unnecessary for the reviewer to go into detail about the merits of this book. Suffice it to say that it represents the labor of a lifetime by a master in his chosen field. It is a book for all intelligent readers who wish to obtain a comprehensive and clear view of many of the sexual problems which may confront them.

JOSEPH SMITH

Williams Obstetrics A Textbook for the Use of Students and Practitioners By Henry J. Stander, M.D. Seventh edition. Octavo of 1269 pages, illustrated. New York, D. Appleton Century Company, 1936. Cloth, \$10.00.

Williams' Obstetrics has been accepted as an outstanding work on the subject, not alone for the student and practitioner, but as a reference work as well. For any man to undertake a new edition meant accepting a task that might impair the value of the book, as well as his own reputation. It was quite natural that this task should be undertaken by Stander, for many years a close associate of Williams and one of his outstanding disciples. The result is one of the finest treatises on obstetrics that it has been the reviewer's privilege to read.

The chapter on Maturation, Fertilization and Development of the Ovum is unusually excellent, the chapter on Hormones is well written and easily understandable.

The chapter on Anesthesia, Analgesia and Anesthesia is a fine evaluation of all methods, past and present, employed in obstetrics and should be reprinted in some of our popular magazines to correct the impressions produced by articles published by some of our so-called obstetricians and pharmaceutical houses.

The chapter devoted to Multiple Pregnancy is clear, concise and up to date. That on toxemia is an excellent exposition of the

knowledge at hand. Stander, like all other writers, discourses volubly against radical treatment (and we subscribe to this) advocating conservative treatment until fully dilated, then forceps or version. What the reviewer would like to know (and there are many like him) is this: what is his treatment of the woman who, in her first pregnancy, reaches the stage of 35 or more weeks of pregnancy, has a big baby, an uneffaced rigid cervix and is eclamptic? A satisfactory answer to this question is still eagerly awaited by the multitude of obstetricians.

We would rather he had said less about manual dilatation and more about Dührssen Incisions. As for Vaginal Cesarean Section we feel that it cannot be recommended after the period of viability.

Deformity of the pelvis is treated most thoroughly and a really satisfactory definition of "test of Labor" is set down. The discussion of induction of premature labor in disproportion is one that the few remaining induction enthusiasts should read carefully.

The management of placenta previa as outlined by Stander conforms to the views as persistently advocated by the reviewer.

JOSHUA RONSHEIM

A Textbook of Pathology By W. G. MacCallum. Sixth edition, entirely reset. Octavo of 1277 pages, illustrated. Philadelphia, W. B. Saunders Company, 1936. Cloth, \$10.00.

This well known standard work has been entirely reset for its new edition. The individual and practical etiological attitude of the volume, as well as its field of usefulness, is too well known for elaboration. Only direct comparison with the previous 1932 edition can show the numerous changes in text and illustrations. Particularly noteworthy, however, are the enlarged and altered chapters dealing with virus infections, vitamin deficiencies, and endocrine disturbances. Not the least of its merits is the excellent reproduction of its illustrations.

IRVING M. DERBY

Royat Treatment in Cardiovascular Disease By Pierre N. Deschamps, M.D. Octavo of 108 pages. Baltimore, William Wood & Company, 1935. Cloth, \$2.00.

With remarkable clarity, Deschamps presents the case for the treatment of hypertension, cardiac insufficiency, angina pectoris and irritable arterial states by carbon dioxide baths. He calls upon a rich familiarity with clinical cardiology for guidance, and very thoroughly discusses the pharmacodynamics

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

A Text-Book of Neuro-Anatomy By Albert Kuntz, M.D. Second edition, thoroughly revised. Octavo of 519 pages, illustrated. Philadelphia, Lea & Febiger, 1936. Cloth, \$6.00.

A textbook to be successful, must be kept up to date by fairly frequent new editions to maintain its popularity. This volume, the second edition, is such an attempt. It can best be described as a real effort to simplify the study of the nervous system. In its 26 chapters, very thoroughly integrated, and pursuing a very careful plan based on the appreciation of fundamentals, this concept of simplicity is attained.

As in all works on neuro-anatomy, the heart of the work is in its illustrations—a total of 307 drawings decorating its pages. References pertinent to the subject are found at the end of each chapter. To the student the clear concise summary at the end of every chapter will be welcome.

The book is of a handy size, and can be carried about easily in a brief case. We feel that Dr. Kuntz has improved definitely on his earlier edition, and that the student will be pleased with the results of his second effort.

HAROLD MERWARTH

An American Doctor's Odyssey Adventures in Forty-five Countries. By Victor Heiser, M.D. Octavo of 544 pages. New York, W. W. Norton & Company, Inc., 1936. Cloth, \$3.50.

A remarkably interesting narrative of a busy doctor's life in odd corners of the world, adventures in forty-five countries Dr. Heiser calls it. The great public health battle in the Philippines and the fight waged by the Rockefeller Foundation on tropical diseases and plagues are interestingly told. Dr. Heiser is always at the front, waging war on malaria, leprosy, cholera, smallpox, beri-beri at their very sources in the vermin infested East. The ancient scourges of mankind are now almost under control, because medicine has tracked down rats, fleas, mosquitoes and the like with persistence and ingenuity worthy of story book detectives. Dr. Heiser is the super Sherlock Holmes of modern tropical medicine.

The chapter on smallpox is the most powerful indictment of the antivaccinationist ever written. The opening chapter on the Johnstown flood is pure literature, nothing better ever done. Rarely finding a tedious page, the physician will get a tremendous thrill, he will glow with pride and enlarge his knowledge of diseases little known to many of us and never seen. It is highly recommended for the medical profession, no one should miss it.

CHARLES A. GORDON

An Introduction to Psychological Medicine By R. G. Gordon, M.D., N. G. Harris, M.D. and J. R. Rees, M.D. Octavo of 300 pages. New York, Oxford University Press, 1936. Cloth.

In recent years greater attention is given to psychological medicine by those in charge of curricula in medical schools. No longer is the medical student expected to satisfy the requirements in his studies of psychiatry and allied subjects by simply visiting a State Hospital or attending lectures in psychiatry. He is now trained in medical psychology in its broadest implication, i.e. in psychiatry, psychopathology, the neuroses, and general maladaptations. The book under discussion is an admirable work that supplies a guide for the student of human behavior and its disorders. There are five sections in the book, devoted to psychology in relation to psychological medicine, psychopathology, psychoneuroses, psychoses, and mental deficiency. In reading the book, one is impressed with the thoroughness and with the philosophical approach of the authors in the treatment of the subject matter. It is the product of men who have had a very rich experience in their particular field. It is highly recommended to medical schools and to the general profession.

IRVING J. SANDS

Psychology of Sex. A Manual for Students By Havelock Ellis. Octavo of 377 pages. New York, Emerson Books, Inc., 1936. Cloth, \$3.00.

We are indebted to Havelock Ellis for another book on the psychology of sex. In substance this book presents in a com-

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SUPPURATION IN THE PNEUMATIC ANTELABYRINTHINE PORTION OF THE PETROUS PYRAMID

HENRY K. TAYLOR, M D, F A C P, *New York City*

From the Roentgen Ray Department, Beth Israel Hospital, Dr I S Hirsch, director

Within recent years, more attention has been focused on the subject of suppurative lesions in the petrous portion of the temporal bone than heretofore. Since the symptom complex described by Kopetzky¹ in 1931, suppurative lesions are being recognized clinically, and because of clinical variations, considerable differences of opinion almost bordering on confusion have resulted. Variations in the interpretation of roentgenograms have also contributed in no small measure to this confusion.

To help clarify many mooted points of this subject, a comprehensive symposium was held before the American Otological Society in Toronto in May 1935.²

From an anatomical standpoint, the petrous portion of the temporal bone may be pneumatic, diploetic, mixed, and also have compact bone. The pneumatic bone may have small or large cells, or both. In the mixed type, the extent of pneumatization may vary considerably. The pneumatic cells may be diffuse, or in isolated groups, the latter appearing as foci surrounded by areas of diploetic or compact bone. The pneumatization may or may not extend to the very tip of the petrous pyramid. The symptomatology and the roentgen findings will vary, depending upon the extent and location of the af-

ected pneumatic structure. Guild³ has ably pointed out the wide range of variation in size, shape, and structure of the normal petrous pyramid.

This presentation deals only with the petrous pyramid which contains pneumatic structure, the pneumatic cells extending into that portion of the pyramid anteromedial to the labyrinth, irrespective of whether pneumatization is complete or incomplete.

Guild,³ quoting Jones, comments on the erroneous descriptive term of *petrous apex*. The labyrinth is practically the only constant in the pyramid and it should be used as a basis for terminology. Hence the term antelabyrinthine, as suggested by Jones,⁴ for that portion of the pyramid anteromedial to the labyrinth, is much better than the incorrect one of petrous apex. The antelabyrinthine portion of the pyramid, which may be two cm in length, has been referred to as the petrous apex. Fowler⁵ criticizes the inaccuracy of the term petrous apex, for all men are not agreed on just what is included in the petrous apex. He includes that portion of the pyramid anterior and medial to the arcuate eminence, as petrous apex.

Wilson⁶ studied the petrous pyramids in fifty children, aged five weeks to fifteen years, and described the petrous

and therapeutic applications of this well-known continental hydropathic treatment.

He cites the experience with CO₂ baths at Spa in Belgium, and Bad Nauheim in Germany, but deals especially with the "cure" at Royat in the Auvergne (France). Americans, physician and lay-man alike, are notably luke-warm towards spa treatments, but this study can be recommended as a frank scientific review of the CO₂ therapy. Now that our own Saratoga spa presents this method of treatment, we should particularly know what others have accomplished.

A personal visit to Royat has made the perusal of this little volume a special pleasure.

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The problem is, for the most part, presented as a clinical one. Stress is placed upon prophylaxis, and many practical points as to prevention and treatment of the conditions, as well as the management of the obstetrical issue, make the reading of this work well-worth while.

WILLIAM C. MEAGHER

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M. Axt

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M. A. GOLDZIEHER

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Fowler⁵ urges the recording of the exposure factors in each case, so that the same technic may be used in re-examination. He cites an instance with an error in interpretation because the technical factors were not identical in two different examinations.

From the roentgen standpoint, there are two types of suppurative lesions occurring in the antelabyrinthine portion of the pyramid. One type is manifested by a destructive lesion, and the other by a productive lesion.

When the lesion is of a destructive nature, there is a coalescence of cells, trabeculae are usually not visible, although they may appear fragmented. The antelabyrinthine area shows a decrease in density, while the labyrinthine and postlabyrinthine areas show an increase in density. When the halistheresis is pronounced the contours of the antelabyrinth may be faintly visualized or not at all. The non-visualization of the antelabyrinth is no indication of a perforation.

When pneumatization in the antelabyrinth is incomplete, the pathology may not be readily recognized. The decalcification, which is sharply limited by the labyrinth, will be more diagnostic and more readily recognizable than small isolated areas of destruction. Areas of destruction, while present, may be obscured by the nonpneumatic bone. When the antelabyrinth is completely pneumatized, the changes are the same as found in a coalescent mastoiditis.

This lesion is relatively acute, and may occur with two different clinical pictures.

1. It may occur with an acute coalescent mastoiditis, or soon after as a complication following mastoidectomy (Fig 1). If drainage from the antelabyrinthine area, either through the ear canal or mastoid wound is interfered with, certain clinical signs and symptoms appear, which, if left alone, will terminate in a meningitis.

2. If drainage is not interfered with, no clinical signs or symptoms appear, this type may be referred to as subacute.⁸ (Fig 2). A normal convalescence follows, except that an otorrhea persists.

The otorrhea in the above two types may persist from the time of surgery, or, there may be complete healing of the wound with cessation of the aural discharge, and then reappearance of the discharge after a varying interval of time. In the type where drainage is adequate, is not interfered with, where no clinical signs or symptoms are present other than the discharge, *symptoms may suddenly appear indicating inadequate drainage*. This requires surgery as a life saving measure. It is conceivable that blockage of drainage may be of an evanescent nature. Alarming symptoms may be present and suddenly disappear with the institution of free drainage. The reverse may also happen.

From an anatomical standpoint, it is possible for a suppurative lesion in the antelabyrinth to appear as a complication to an acute otitis media.

When the lesion is productive in character, the entire pyramid shows an increase in density, the trabeculae may be thickened or no cells or trabeculae may be visible, a productive osteitis is present (Fig 3 and 4). A sclerosing process involves the pyramid. This is a chronic lesion. In many cases of chronic otorrhea, the focus of infection may be located in the antelabyrinthine portion of the pyramid. In this type, there are no symp-



Fig 2. Left antelabyrinth. Coalescence of cells—intense atrophy. Clinically Otorrhea following mastoid surgery, no other symptoms. Suppurative lesion with adequate drainage (subacute).



Fig 1 Right antelabyrinth. Coalescence of cells—intense atrophy. Clinically Suppurative lesion with inadequate drainage (acute)

apex as being "medial to the internal auditory meatus and the bony capsule of the cochlea and terminates at the synchondrosis of the basi-occipital and the sphenoid"

While most authors used the term of petrous apex erroneously, practically all referred to the same anatomical portion of the petrous pyramid—that portion anterior and medial to the labyrinth. In order to avoid confusion and to adopt a descriptive nomenclature, I believe the suggestion of Jones is an excellent one, and that the erroneous term *petrous apex* should be discarded in favor of the more accurate term *antelabyrinthine* portion of the pyramid or *antelabyrinth**. This excludes any pneumatic structure about the semicircular canals or cochlea coils of the otic capsule. These latter cells may be referred to as *labyrinthine* or *perilabyrinthine*, with further subdivisions as to exact location, proximity to the semicircular canals or cochlea coils, superiorly, inferiorly, anteriorly or posteriorly. For the cells lateral to the semicircular canals, (mastoid) Guild³ suggests the name of *postlabyrinthine* cells.

There are many ways of demonstrating the petrous pyramid on a roentgenogram. Each position for demonstrating the pyramid has value. The popular positions

used for demonstrating the suppurative lesions in the antelabyrinth are axial projections, of the base of the skull, and oblique views of the skull. With the axial projections, the petrous pyramids are rayed simultaneously. The ones commonly used are (1) inferosuperior, (2) superoinferior, and (3) posteroanterior with the pyramids projected into the orbits. In the oblique views of the skull, each pyramid is rayed singly and the popular positions are (1) Stenvers, and (2) reversed Stenver, or the Granger modification of the Arcelin position.

I prefer to use the inferosuperior projection of the base of the skull and the Granger modification of the Arcelin position for demonstrating the petrous pyramids. Dr Frederick M Law uses the superoinferior projection. I have found it easier to determine the extent and nature of the pneumatization in a film of the base of the skull. This position should be included in the routine examination of the mastoid process. I recommended this procedure five years ago and still find it very useful.⁷ Law concurs in this view. Fowler,⁸ Seydell,⁹ and others emphasize this. The literature reveals that many otologists and roentgenologists consider this procedure valuable and have incorporated it in their routine roentgen examination of the mastoid processes. Fowler,⁸ recommends that the P-A view be included.

When a complicating lesion is suspected in the antelabyrinthine portion of the pyramid, the routine roentgen examination should include the mastoid areas, a film of the base of the skull, and the pyramids in the Stenver or reversed Stenver position*.

A film at the base of the skull made at the time of the original mastoid examination, compared with a film of the base of the skull made at the time of an otitic complication, will immediately determine the presence or absence of a lesion in the antelabyrinthine area. In addition, the pyramid in the Stenver or reversed Stenver position will corroborate the findings. In the event that no suppurative lesion exists in the antelabyrinth,

* I usually employ the reversed Stenver position when I include an oblique view of the skull.

* Guild³ suggested the term *mediolabyrinthine*.

perforation of the superior wall of the pyramid associated with an epidural abscess may sometimes be detected in the oblique view of the skull. This cannot be detected in a film of the base of the skull, but may be detected in a P-A view.

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Fig 2. Left antelabyrinth. Coalescence of cells—intense atrophy. Clinically Otorrhea following mastoid surgery, no other symptoms. Suppurative lesion with adequate drainage (subacute).



Fig 3 Left Pyramid No pneumatic structure visible. There are productive changes involving the pyramid. Clinically Persistent otorrhea following mastoid surgery. Mastoidectomy two years previously. Suppurative lesion in antelabyrinthine area with adequate drainage (chronic).

In addition to the findings just described, the petrous pyramid shows changes from the normal with *any otitic infection*, even though no suppurative lesion in the pyramid exists. To quote Fowler,¹⁰

The air cells communicate with one another and, more important still, they communicate with the middle ear, so that if there is an inflammatory process in the middle ear there is usually more or less inflammatory reaction in the mastoid and the petrous cells. That is, with every otitis media there is always more or less mastoiditis, and if there are cells in the petrosae, always more or less petrositis. The important point is that infection may well be apparent in roentgenograms, but x-ray changes in the petrosae do not necessarily mean operative petrositis any more than x-ray changes in the mastoid necessarily mean operative mastoiditis.

It is because of the variations in the appearance of the pneumatized pyramid, in the presence of an otitic infection,¹¹



Fig 4 Same as Fig 3 in reversed Stenver position also showing the productive bone changes involving the left pyramid.

toms other than the otorrhea. There is no interference with drainage. When drainage is interfered with, alarming symptoms present themselves.

In the type, with a persistent otorrhea, an acute reinfection may occur. When this happens, while drainage was formerly free, the reinfection causes an obstruction to interfere with drainage. Jones⁴ considers the reinfection of a chronic or prolonged process with obstruction to drainage as the most dangerous type

without a complicating suppurative lesion in the antelabyrinth, that variations in opinion have resulted.

A perforation in the antelabyrinthine area of the pyramid may occur when a suppurative lesion is present. When the perforation involves the superior surface, it may be recognized in the reversed Stenver position, and also in the P-A view. It cannot be recognized in a film of the base of the skull.

A perforation through any surface

other than the superior, cannot be detected unless a contrast substance which had been injected into the pyramid, escaped into the cranial cavity or into the posterior pharyngeal wall. The contrast substance can be injected into the fistulous tract if present, or through the drill hole in the Almour operation.¹ I have never seen a perforation along the base or anterior surface of the pyramid with an extension of the lesion into the posterior pharyngeal wall.

In one instance, I observed a perforation through the posterior surface of the pyramid with the formation of a cerebellar epidural abscess. The contrast substance was instilled into the fistulous tract and found an exit into the posterior cranial fossa.

The contrast substance entering into the cranial cavity may be localized and walled off at the site of the perforation, or it may enter all the fossae along the base of the skull. When it extends posteriorly, it usually dissects the layers of the tentorium and is not found below it.

When the contrast substance is found below the tentorium, the prognosis is bad.

Conclusions

1 The term petrous apex should be abandoned. The subdivisions of the pyramid should be designated antelabyrinth, labyrinth or perilabyrinth, and postlabyrinth.

2 The pneumatic structure in the petrous pyramid can be demonstrated roentgenographically. Pathological changes occurring in the antelabyrinth following an otitic infection, may be acute, subacute or chronic. The acute and subacute varieties show destructive changes while the chronic variety shows productive changes in the antelabyrinth.

3 The roentgenogram reveals changes in the appearance of the antelabyrinth with every otitic infection. These changes are not necessarily due to a suppurative lesion in the antelabyrinth.

667 MADISON AVE.

References

- 1 Kopetzky, Samuel J. and Almour, Ralph. *Ann Otol Rhin & Laryng*, Vol 39 No 4 1930 and Vol 40, 1, 2, & 3 1931.
- 2 Symposium. *Ibid*, 44 1003, 1935.
- 3 Guild, Stacy R. *Ibid* 44 1011 1935.
- 4 Jones, Marvin F. *Ibid* 44 1036, 1935.
- 5 Fowler, Jr. Edmund P. *Ibid* 44 1056, 1935.
- 6 Wilson J. Gordon. *Ibid* 44 1048, 1935.
- 7 Taylor, Henry K. *Ibid*, 39 367, 1931.
- 8 Seydell, Ernest M. *Ibid* 44 1068 1935.
- 9 Taylor, Henry K. *Arch Otolaryng* 18 458, 1933.
- 10 Fowler, Jr., Edmund P. *J.A.M.A* 102 1651, 1934.
- 11 Taylor Henry K. *Am J Roent & Rad Ther* 33 767 1935.

LATEST WRINKLE OF NAZI PERSECUTION

The repercussions of Nazism seem endless. The medical refugees from Nazi hostility flood near-by lands, of course, and Czechoslovakia has naturally been deluged. Native doctors protested, so the government ruled that a medical practitioner must be of Czechoslovakian nationality, by birth, naturalization or marriage. Marriage, like charity, may cover a multitude of sins! As told in the foreign correspondence of the *Medical Record*, the new law brought about a situation unique in the annals of medical practice. Many doctors married Czechoslovakian citizens, men or women, as the case

required, and thus complied with the laws on licensure. Later on this practice degenerated into a real business. A young doctor would marry a Czechoslovak lady "for a consideration", he would obtain his license on the grounds of his diploma plus the marriage certificate, and as soon as his shingle was out he would divorce his partner and so remain not only a full-fledged practising physician, or surgeon, but also a fully legal Czechoslovak citizen. Until now the government has not yet found a solution to this aspect of the problem.

LITTLE RECOGNIZED TYPES OF ALLERGY

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Thirty-two years have passed since Theobald Smith,¹ in his studies of diphtheria, ran out of guinea pigs, reinoculated with horse serum several that had previously been given antitoxin, and was astonished to find that, whereas the first dose had been innocuous, the second caused sudden death. It is twenty-six years since Meltzer,² in a half column article, called attention to the similarity of the symptoms shown by these animals dying of anaphylaxis to those of human beings with asthma, and suggested that asthma was a mild form of anaphylactic shock. Twenty-four years ago Schloss³ put some milk on a scratch on the arm of a child that had an idiosyncrasy against milk and saw the prompt production of a wheal.

From these three observations, in the last score of years has grown an entirely new branch of medicine, a completely novel conception of many previously unexplainable diseases and another class of recruits to our ever-increasing army of specialists. Allergy and the allergist are the outcome of these studies of Smith, Meltzer, and Schloss.

The recognition of allergy as a new specialty in medicine and the acceptance of the principles underlying it as a means of curing many diseases previously considered incurable, has met in some quarters the same opposition as did the introduction of vaccination by Jenner, of antiseptics by Lister, and clean obstetrics by Holmes. During the last twenty years, however, allergy has come into its own, and today the physician who will attempt to treat a case of asthma, or of eczema, without giving the patient the opportunity of having his case studied as to his allergic idiosyncrasies may well be considered to be giving his patient about as fair a deal as does he who sets a broken thigh without having recourse to the x-ray, or neglects to give antitoxin in diphtheria.

Ten years ago not one physician in a

hundred knew the meaning of the word allergy. Today there are few indeed so reactionary that they will not admit that in cases of asthma, hay fever, eczema, urticaria, and angioneurotic edema knowledge of the etiology of the disease can often be obtained by a series of skin tests, and in many cases these recurring intractable diseases can be cured by following up the knowledge so obtained. The value of allergic studies for these five diseases is so well-established that today it needs no brief. We all know it as a fact whether we make use of that knowledge by referring our cases to an allergist for scientific study, or go on with the purely palliative methods of treatment of the last century.

Most of the medical profession, however, when thinking of the allergic diseases picture in their mind these five conditions and stop there. Very few appreciate how far afield the immense amount of clinical research in allergy has gone and how much evidence has been accumulating pointing to the allergic origin of some of our most common and most puzzling clinical entities.

An allergic reaction, or shock, is caused by the absorption into the system of a foreign protein to which the patient, through inheritance and previous environment, has become sensitized. This protein may be acquired by inhalation, ingestion, or contact, or it may be generated in the body itself. It may be inspired as the pollen of flowers, dander, or hair of animals, or furs, feathers, clothing, scents, powders or dust, and in fact any protein which may be present floating in the air. It may be ingested in the form of foods. It may gain entrance by direct contact with the skin as in the case of flowers, furs, clothing, and dyes. Lastly, it may be generated in the patient's own body, a result of digestion, or more commonly, as the products of bacterial or fungus action in cases of focal infection. When the specific foreign

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protein gains entrance to the body of the person previously sensitized to it, one or more of three things may occur—local edema, smooth muscle spasm or increased glandular secretion. These changes can take place in any part, or any tissue, of the body and, according to the nature and the location of the reaction, many and various clinical symptoms may develop.

While all physicians who keep abreast of the progress of medical science today recognize the true nature of asthma and seasonal hay fever, many do not appreciate that several other diseases of the respiratory tract may be of allergic origin.

The most common of these is the symptom complex, long known to the rhinologist as hypertrophic, or vasomotor, rhinitis, and to the allergist as perennial hay fever. The symptoms which may be recurrent or almost constant have little relation to the season. The patient who previously may have been quite well suddenly has an attack which, if it had occurred in June or in August, would have been diagnosed hay fever. There is burning and itching of the eyes, nose, throat, and roof of the mouth. There is lacrimation, sneezing, and a profuse watery discharge from the nose. The eyes may be swollen shut and the nose enlarged and turgid. On examination the nasal mucous membranes are swollen, boggy, and, instead of being red as in an acute rhinitis, they are of a glistening pearl gray. The discharge from the nose, if stained, is found to contain a great number of eosinophiles. The turbinates are swollen, nasal drainage is obstructed, and, if the condition has been of long standing, there are usually nasal polypi and chronic swelling of the lining of the paranasal sinuses.

This is the type of case that has been the *bête noire* of the rhinologist. Turbinates have been removed, polypi have been snared, sinuses have been drained, and in a few months the patients have returned with the story that after a few weeks of partial relief the symptoms have returned as bad, or even worse, than before. The general opinion today is that all of these cases are of allergic origin. Rhinologists today appreciate this and

are referring them more and more to the allergist to find the underlying cause of the condition. Polypi are not the cause of the nasal turgescence, but are the result of the edema which is but an allergic reaction to some foreign protein. While most of these cases are activated by inhalation of the emanation of hairs, feathers scents, especially orris root, or wave sets as flaxseed, or gum acacia, or dust, others can be caused by the ingestion of some food protein. The most common food offender in this disease is wheat, although eggs come a close second. Other cases seem to be the result of allergic sensitivity to bacterial toxines, produced in foci of infection, perhaps in the head, perhaps in some distant part of the body.

Rhinological operations upon these patients are unjustified unless the patient has first been studied from the allergic viewpoint and either the offending source of irritation eliminated or the patient desensitized by proper treatment based upon the allergic findings. After this has been done, if there still remain pathological conditions causing nasal obstruction, operation may be done with fair hope of a permanent cure. Without the removal of the allergic cause, the operation is no more logical than is the constant mopping up of a wet floor without mending the hole in the roof.

The allergic reaction, if it extends to the pharynx, may cause redness and burning of the throat often mistaken for recurrent pharyngitis, and if it reaches the larynx may result in edema of that organ. It is interesting to see what a large proportion of allergic patients give a history of croup in infancy and childhood. There has been very little work done on spasmodic croup as an allergic manifestation, but it is very possible that some investigation along this line will add this fearsome, if harmless, affection of childhood to the allergic family.

Although, when the bronchial tubes are involved, the usual result is asthma, the reaction may take another form and produce a dry irritating cough usually diagnosed bronchitis. When one has seen an infant suffering from repeated attacks of bronchitis entirely alleviated by removing a canary from his room, or

a boy coughing day and night for four days every time he touches a cat, one wonders how many more cases of recurrent and chronic bronchitis may not be due to similar easily remedial causes

One allergist of wide experience* has gone so far as to describe what he calls allergic pseudobronchopneumonia. In these cases the child is taken suddenly ill with fever, dyspnea, cyanosis, and rales in his chest. In fact he has all the typical symptoms of a severe bronchopneumonia. Unlike the true disease, however, the symptoms all disappear in from twelve to thirty-six hours and more rapidly if treated with ephedrine or adrenalin. These attacks may occur at frequent intervals. He suggests that in all cases where children have frequent attacks of bronchopneumonia of short duration the possibility of an allergic origin should be given due consideration.

There are few diseases which in the aggregate cause more hours of maternal worry than does that which is commonly called catching cold. "Colds" in frequency probably exceed all other illnesses put together. Still how little we really know of the cause of the disease and how little we can do to prevent and cure it. Rhinorrhea, pharyngitis, laryngitis, bronchitis, pneumonitis are all grouped under this all embracing term. Most of these attacks are probably true infections. Yet when one considers that every symptom complex grouped under this classification can be reproduced in allergic patients by the specific protein to which they are sensitive, one naturally wonders how many of our sufferers from repeated "colds" are really children undergoing an allergic reaction. It would seem likely that if every case of recurring colds were considered as at least a possible case of allergy, and investigated from this viewpoint much childhood suffering and maternal anxiety might be prevented. It is certain that not all respiratory affections are allergic in origin. It is just as certain that many, now not recognized as such, are true allergies.

If the allergic manifestations appear in the gastrointestinal system the symptoms vary with the location and the character of the lesions. All are familiar with the sudden edema of the lips and tongue

which will occur in the child with an idiosyncrasy to egg almost immediately this food comes in contact with the child's mouth. Few, however, appreciate that many of the cases of aphthous stomatitis, popularly called canker sores, are of allergic origin and can be prevented and cured by identifying the offending protein and removing it from the dietary. Such cases occurring only once or at rare intervals, are probably of infectious origin and may even be mild forms of Vincent's Angina. The troublesome cases of recurring canker sore, however, which keep the mouth uncomfortable more or less constantly and are generally blamed on indigestion, or constipation, should be held under suspicion of being of allergic origin and treated accordingly. If the patient shows other allergic affections this precaution becomes imperative.

If an allergic reaction can manifest itself by swelling of the lips, or ulceration of the cheeks or tongue, it is reasonable to suppose that after the offending protein has been swallowed it will continue to produce similar changes in the stomach and intestines. Clinical observation has confirmed this supposition. It has been amply proven that the three types of the allergic reaction—local edema, muscle spasm, and hypersecretion—may all occur in the stomach and intestines in the allergic patient upon the ingestion of the offending protein.

The extensive studies of many careful observers prove beyond a doubt that many of our cases of chronic and recurring digestive disturbances are due to swelling of the walls of the intestines and spasm of the musculature of the bowel as part of an allergic reaction. Occasionally cases occur in which there is a condition of angioneurotic edema of the intestinal wall so marked that a tumor-like mass can be picked up in the fingers. In these cases there may be complete closing of the intestinal lumen and all the evidences of acute obstruction. These symptoms usually disappear in twenty-four hours, or more rapidly following an injection of adrenalin. In other cases the allergic lesions may cause abdominal pain and tenderness, either general or localized, easily mistaken for an involvement of the ap-

pendix or gall-bladder. In these cases, if the offending protein can be identified; and it is usually one of the common ones as wheat, milk or eggs, and eliminated from the diet, the symptoms promptly disappear to recur immediately following the reingestion of the same food. In those cases of supposed chronic appendicitis, or gall-bladder disease, where the patient has returned following an operation with the cheering news that the symptoms are as bad as ever, the surgeon often could have saved himself much chagrin if he had thought a little more about the possibility of gastrointestinal allergy before he advised operation. Of course when one has definite symptoms of an acute appendicitis, or cholecystitis, one cannot afford to waste time required for an allergic investigation and immediate operation is indicated, but in many of the indefinite subacute and chronic cases where operations are recommended chiefly because the patient has suffered recurring attacks of abdominal pains and the physician is at a loss to know what further to do, one should at least inquire carefully into the question of an allergic family and past history, and give some thought as to whether this particular patient may not have a better chance of alleviation if placed in the hands of an allergist rather than of a surgeon. Many chronic dyspeptics have been completely cured of their symptoms and have been saved the danger, discomfort, and expense of a useless abdominal operation by the allergist discovering that he had an idiosyncrasy against some article in his diet.

There are few common diseases concerning which we are etiologically so thoroughly at sea, or in whose treatment we receive more discouraging setbacks than in the case of gastric and duodenal ulcers. Some interesting observations suggest that in some of these cases at least allergy may be a factor.

In 1925 Ivy and Shapiro⁵ sensitized dogs with a pyloric pouch and rabbits to various proteins. After they had become sensitized he injected the same protein into the gastric mucosa. In a few days the animals developed typical punched-out ulcers indistinguishable from peptic ulcers in man. Control animals that had

not been previously sensitized showed no such ulcers.

In 1931 Kern and Stewart⁶ reported thirty-two unselected cases of duodenal ulcer. Fifty per cent of them gave either a family or personal history of allergic disease, and sixty per cent gave one or more reactions to skin tests. In a considerable number of these cases the symptoms of ulcer could be relieved by removing the offending protein from the diet and would return immediately upon its reingestion.

Recently Gay⁷ of St. Louis reported a series of peptic ulcers studied from the allergic viewpoint by means of skin tests, elimination diets and the leukopenic index. He was able to control the symptoms of his patients by regulating the diet according to the results of his allergic studies. It is interesting to note that several of his cases who had made no progress on the Sippy diet were found to be hypersensitive to milk. These cases showed prompt improvement when milk was eliminated and they were fed such heterodoxical foods as cauliflower, apples, string beans, cabbage, and tomatoes.

In the absence of personal experience with the allergic study of gastric and duodenal ulcer one is loath to wax enthusiastic. Certainly, however, these findings are most suggestive and hold out hopes of results more beneficial than are usually obtained by the methods of treatment now in vogue. If a few more cases of peptic ulcer were referred to the allergist for investigation, it is possible that much new light could be thrown upon the puzzling question of etiology and treatment of the disease.

When the allergic reaction takes the form of hypersecretion of the intestinal glands large amounts of mucus are poured into the bowel. If to this is added smooth muscle contractions we get the typical symptom complex known as mucous colitis. Since Vaughn⁸ first (1922) described mucous colitis as an allergic disease, students of allergy have come more and more to believe that many of these cases are the direct result of the ingestion of food to which the patients are sensitive, and some have gone so far as to say that all such cases are allergic. If you can relieve these chronic

sufferers by such a simple procedure as elimination of egg from the diet and save them from the discomfort and nuisance of the popular and fashionable high colonic irrigations, they will rise up and call you blessed

If the intestinal congestion and ulceration due to allergy is extensive, it may be accompanied by the extravasation of blood. Lintz⁹ has found occult blood in the stools of a large number of patients following attacks of asthma, and other writers have described macroscopic hemorrhages from the bowel which they believed were due to an allergic reaction of the intestinal mucous membrane

If the allergic reaction occurs inside the cranial cavity it may cause definite and even violent neurological symptoms. If it takes the form of contraction of the muscles of the cerebral arteries, the result will be a local cerebral anemia. If it shows itself as an urticaria, or angio-neurotic edema of the brain or meninges, the pathological condition becomes to all intents and purposes an acute evanescent brain tumor.

Careful observation during the past dozen years has shown that practically any one of the cardinal symptoms of brain tumor may occur intermittently in patients as a result of an allergic condition. A few observers have explained certain peculiar forms of transient paralysis by attributing them to either arteriospasm, or local brain edema, of allergic origin. Others have produced evidence that cases of recurrent vomiting, and especially the condition of childhood called cyclic vomiting, a disagreeable symptom complex which has never been adequately explained, are really due to allergic reactions in the brain, or directly on the gastric mucous membrane.

The third manifestation of brain pressure, headache, is one of the most common, if not universally accepted results of allergy. It is seventeen years since three French investigators¹⁰ called attention to the similarities between migraine and asthma and urticaria, in its recurrence without apparent cause, and its association with other allergic diseases. Vaughan¹¹ a few years later proved conclusively that a considerable percentage of cases of migraine are allergic and that

after the offending protein, most commonly wheat, has been discovered the attacks can be prevented and produced at will by withholding, or feeding it. Other symptoms of increased cerebral pressure, scintillating scotomata, dizziness, and vomiting which so frequently accompany the headache in migraine, all point to an acute, if transient, brain tumefaction. It is difficult to imagine any process which could produce a brain tumor, coming on suddenly, disappearing as suddenly, and then recurring at regular intervals except the acute edema of an allergic shock. Opinions differ as to the percentage of cases of migraine which are allergic varying according to the enthusiasm of the author all the way from fifteen to one hundred per cent.

The fourth classical symptom of brain pressure, convulsion, as a result of an allergic edema of the brain is one in which I have been intensely interested for the last five years in the form of infantile convulsions and epilepsy. There has not been a great deal of work done on infantile convulsions, but what has been done points strongly to allergy as a cause in some cases. I vividly recall one baby who was having from one to five convulsions a day. This child gave positive skin reactions to oats, beef, apple, date, celery, spinach, chicken, duck and goose feathers, dog hair, and cottonseed. During the two weeks consumed in testing, the child remained in the hospital and continued to have several convulsions daily. On completing the study and eliminating the offending proteins from the diet and environment, the attacks ceased immediately and did not recur during the remaining ten days of hospitalization.

Epilepsy is generally considered a hopelessly incurable disease and a condition the true etiology of which has never been discovered. The truth of the matter is that probably the symptom complex which we call epilepsy is a manifestation of several quite distinct and diverse pathological processes. The work of some dozen investigators in various parts of the world point strongly to the probability that at least some cases of epilepsy are allergic in origin and can be completely cured if treated as such. An acute localized cerebral edema due to

allergy would seem theoretically as rational an explanation of the symptoms of epilepsy as any that has as yet been offered. Recently Davidoff and Kapeloff¹² have carried out some interesting experiments on dogs. They sensitized the left cerebral motor area in several animals by first injury to the region, and then injecting horse serum or egg albumin. Following this, whenever horse serum or egg albumin was injected intravenously either transient paralysis or convulsive motions appeared in the right legs.

My personal observations confirm the relation between epilepsy and allergy for in several cases I have discovered in typical cases of idiopathic epilepsy definite protein hypersensitiveness, and by following out appropriate treatment as the result of an allergic investigation have been gratified to procure a complete cure. My first case of this kind which started my interest in allergic epilepsy, was that of a young girl who had had epileptic attacks for four years finally recurring twice a week. As she also had asthma I did skin tests on her. She was sensitive to radish, cheese, cottonseed, and cattle hair. The foods were eliminated from her diet and cotton from her environment. As she lived on a farm, cattle could not be avoided and for eight months she received weekly inoculations with cattle hair. Not only was she cured of her asthma, but to my astonishment her epileptic attacks rapidly decreased in frequency, and she has had no convulsions since November 1931. Other cases, perhaps less dramatic than this, have convinced me that some cases of epilepsy are in truth cerebral allergy, and if they can be recognized and treated before organic brain degeneration has set in complete cures may be obtained.

No one claims to be able to cure all cases of recurrent headache and epilepsy by treating them as manifestations of cerebral allergy. On the other hand, if we can benefit even a small percentage of these pitiful creatures doomed to a lifetime of suffering and misery, by the simple procedure of finding to what proteins they are sensitive and eliminating them we have done a work in which we can take great satisfaction. Is it fair to deprive these sufferers of this chance?

A common concomitant of hay fever is itching and running of the eyes. Vernal conjunctivitis is simply an allergic reaction to a pollen with, or without, the accompanying nasal symptoms. Various authors have described cases of blephoritis, conjunctivitis, scleritis, and corneal ulcer due to an idiosyncrasy against some food, orris root or some cosmetic. Where any eye lesion recurs, either seasonally or at irregular intervals, its allergic origin should be kept in mind.

Arthritis is a term which covers a series of clinical entities varying greatly both as to etiology and the course of the affliction. In the septic joint, caused by direct infection of such organisms as the streptococcus or the gonococcus the etiological factor is easily discovered. In many other types, however, although among the most common of human afflictions our knowledge of the etiological factor is meager. We know little as to the etiology of such a common disease as acute articular rheumatism, except that it seems to be associated with diseased tonsils or bad teeth. When it comes to rheumatoid arthritis, or arthritis deformans, our ignorance is abysmal.

The theory has been propounded that acute rheumatic fever is closely related to the acute joint swelling often accompanying serum sickness after injection of anti-toxin, but that, instead of being an anaphylactic reaction to the injection of the foreign protein, it is the allergic reaction to toxin developed at the site of the focal infection. While little has been done to tie acute rheumatism up to the allergies, some very interesting results have been obtained in chronic arthritis.

As far back as 1924 Turnbull¹³ of Boston reported a series of cases of chronic arthritis in which definite food sensitizations were discovered, and by regulating the diet accordingly the cases all were markedly improved or entirely cured.

Freiberg¹⁴ (1929) reported an experimental study in which he produced arthritis in rabbits by repeated injections of bacterial filtrates and the following year some clinical observations bearing out the theory that at least some cases of chronic arthritis were allergic reactions to bacterial toxins. He took cultures from all

possible sources of focal infections, isolated the various bacteria, and made individual autogenous vaccines from each organism found and then did endermal tests on the patient with each vaccine. Those which reacted were then combined in the proper proportion and the patient was given desensitizing doses of this combined vaccine beginning with minute doses. Of thirteen cases he reported seven complete cures, in one of which the disease was of fourteen years standing, four improvements, and only two failures. I have used a modification of Freiberg's method on one boy who had been bed-ridden for a year with chronic arthritis. This past summer he has been playing baseball and running as well as the other boys. It is hardly to be expected when an arthritis is so long-standing that there are marked bony changes that much can be done for them. If, however, these cases can be investigated early, the cause discovered, and the patient desensitized by carefully regulated inoculations, it is probable that many of these patients may be saved from becoming chronic cripples.

I am not trying to give the impression that all diseases of mankind are allergic, and that by scratching the arm we can gain information which will cure all illnesses. I do wish, however, to leave the thought with you that the allergic reaction can do more than cause asthma, eczema, hay fever, and urticaria. It can affect any organ in the body. When you have a disease process of which you do not know the etiology and for which you have been able to do nothing therapeutically of lasting benefit, just stop and think. Can this be allergic?—and if you think it can, find out if it is!

In determining whether a particular case is allergic we have several distinct aids. A careful family history is of the greatest value. The power to become allergically sensitized is hereditary and a family history of other allergic diseases in ancestors and collateral relatives gives important information. A thorough personal history is equally important. Has the individual patient suffered from eczema in childhood, asthma, hay fever, hives or migraine? Are his attacks seasonal and periodic or do they come on in especial localities or under particular con-

ditions? Remember that a person who has one allergic manifestation is very apt to have others. Have a blood examination made and note carefully the proportion of eosinophiles. Have nasal secretions examined for the same cells. Eosinophilia is a strong evidence of allergy.

A new aid recently described is the leukopenic index.¹⁶ It has recently been shown that if a patient ingests a food to which he is allergic, instead of the expected digestive leukocytosis, repeated leukocyte counts will show a marked drop in the white count lasting for one to two hours.

If from any of the above you are led to suspect that your case is allergic, turn your patient over to an allergist. Unless you are very familiar with the technique of an allergic study, do not attempt it yourself. The science of allergy does not consist in renting a test set from a druggist and making a few scratches on the arm. The true allergist knows how much faith to put in the tests. From long experience he is able to interpret his results. The tests are not the whole story. The best they can do is to give us a hint. Following these hints, careful dietary and environmental regulations must be prescribed, and the results properly explained. Cultures must be taken, vaccines made, and tests made with these. The dosage of therapeutic inoculation must be checked by endermal testing and the proper dose determined. Environments, habits, occupation, even friends and neighbors must be considered in solving each case. Time, patience, and something of the detective instinct are required if one would be a successful allergist.

Whatever you do, do not think of the new science of allergy as a passing fad. It is a branch of medicine which touches practically every one of our specialties. Internist, neurologist, ophthalmologist, rhinologist, dermatologist are all daily, whether they appreciate it or not, treating cases of allergy and unless they recognize them as such their treatment is futile. Seeking the cooperation of the allergist just as you do of the roentgenologist in cases of doubtful diagnosis and unavailing therapeutics will add much to your reputation as a physician, and to the comfort and health of some of your most troublesome patients.

References

- 1 Smith, Theobald *Jour Med Research*, 12 385, 1904
- 2 Meltzer *Jour Am Med Assn* 55 1021, 1910
- 3 Schloss, Oscar *Am Jour Diseases of Children* 3 341, 1912
- 4 Balyeat, Ray M *Jour Oklahoma State Med Assn*, July 1931
- 5 Ivy, A. C & Shapiro, P F *J A M A* 85 1131, 1925
- 6 Kern, Richard A and Stewart, Sloan G *Jour Allergy*, 3 51 1931
- 7 Gay, L P *J A M A*, 106 969, 1936
- 8 Vaughan, Warren T *Virginia Medical Monthly* Sept. 1922
- 9 Lintz, William *Boston Med & Surg Jour*, 190 980, 1924
- 10 Pagniez, Vallery Radot, and Nast *Pressé Médicale* 27 172, 1919
- 11 Vaughan Warren T *J A M A* 88 1383, 1927
- 12 Davidoff, Leo M and Kopeloff, Nicholas *Proc Soc Experimental Biology & Med* 31 980, 1934
- 13 Turnbull, John A *J A M A* 82 1757, 1924
- 14 Freiberg, Joseph A *Archives of Surgery*, 18 645 1929, *Jour Lab & Clin Med* 15 1109, 1930
- 15 Vaughan Warren T *Jour Allergy*, 5 601, 1934 *Ibid* 6 78 1935

BIRTH CONTROL LAWS REINTERPRETED

On December 7, 1936, the United States Circuit Court of Appeals of the Second Circuit handed down a unanimous decision of major importance to physicians

The test case in question dealt with the legality of the importation of contraceptives from abroad, and, specifically, with the importation of a package of Japanese pessaries sent to Dr Hannah M Stone, a New York City gynecologist, for research purposes. The Customs authorities refused to admit this package on the basis of the Comstock law of 1873

Last February this case was brought before Judge Grover Moscowitz of the District Court who directed that the package of contraceptives be surrendered to Dr Stone since they were intended for legitimate medical use and the statute in question applied only to contraceptives for illegitimate use. The case was appealed by the government to the higher court whose decision proved even more sweeping than that of Judge Moscowitz. This decision when added to a previous ruling of the same court relating to the use of the United States mails (the Youngs Case in 1930) fully defines the physician's rights in this matter. The judges stated

It is true that in 1873, when the Comstock Act was passed, information now available as to the evils resulting in many cases from conception was most limited. We are satisfied that this statute, as well as all the acts we have referred to, embraced only such articles as Congress would have denounced as immoral if it had understood all the conditions under which they were to be used. Its design, in our opinion, was not to prevent the importation sale or carriage by mail of things which might intelligently be employed by conscientious and com-

petent physicians for the purpose of saving life or promoting the well being of their patients

The Court further pointed out that the Comstock Bill, as originally introduced in the Senate, contained the words "except on a prescription of a physician in good standing, given in good faith," but that those words were omitted from the bill as it was ultimately passed. "The remarks when the bill was up for passage in final form, indicate that the scope of the measure was not well understood and that the language used was to be left largely for future interpretation," the judges held

Mr Morris Ernst, chief of the defense counsel, pointed out that the Circuit Court's decision "means the end of birth control laws" and that it makes unnecessary any attempt for federal legislation regarding the rights of the medical profession in the prescription of contraceptives

The last vestige of the illegality of medically-prescribed contraception has been removed

In commenting upon this decision, Dr Eric M Matsner, Executive Secretary, National Medical Council on Birth Control, states

This decision paves the way for the increase in the number of contraceptive services in the outpatient department of all American hospitals of which at the present time there are only sixty-five. This legal interpretation brings a dual responsibility to the medical profession in the standardization and improvement of contraceptive materials and in making these available to all classes of society. If the medical profession is to control the widespread use of contraceptives it is essential that further research be undertaken by recognized medical institutions and that more adequate instruction be given in medical schools

THERAPY OF ACNE VULGARIS WITH HORMONE PREPARATIONS

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Historical

Acne does not appear to have been recognized by the oldest Greek physicians Galen, however, and Aetius (542) were acquainted with it. According to Greenhill,¹ the word should really be acme, from the Greek ἀκμή and the error in mistaking the m for n arose with Aetius, who thought that the disease occurred at the acme of the system. With these exceptions there is scarcely a reference to acne to be found in ancient or mediaeval medical literature. Not even the works of Mercurialis, or Haffenreffer, especially devoted to the subject of cutaneous diseases, make the slightest mention of it. It was not until the sixteenth century that it was again noted by Gorraeus (1578) who said "Acne is a small hard papule on the face, called by the Greeks ἰσθός, by the Latins varus."² Willan and Bateman in 1817 divided it into acne simplex, punctata, indurata, and rosacea. Erasmus Wilson in 1842 gave the name acne vulgaris to the entity that we know today, and separated it from acne rosacea.

Incidence

Acne is undoubtedly the most common skin disease of the second and third decades of life. It is estimated³ that acne patients constitute about 85 per cent of all cases seen in dermatologic practice. Bloch's⁴ summaries of the results of the examination of 4191 children between the ages of six to nineteen years, of both sexes, show that if one considers the comedo the essential lesion of acne, a few such lesions occur in an amazingly high percentage, sixty-four per cent in this series. The percentage of individuals suffering from acne increases with age, and reaches its maximum in the seventeenth

year for girls, and the eighteenth year for boys, only 34 per cent of girls in that group, and 06 per cent of boys were entirely free from the eruption.

On the basis then of the above figures alone, it would seem that the development of a few acne lesions at the age of puberty is physiologically normal. It is only when the lesions are unusually numerous, severe or persistent that we can consider acne a disease.

Etiology and Review of the Literature

Many attempts have been made to approach the problem of the etiology of acne chemically, metabolically, and by histological and bacteriological methods, with however, little success. Unna,⁵ in 1893, first described a microbacillus, termed acne bacillus, Sabouraud⁶ regarded acne as a local infectious disease of the skin based on a primary seborrhea, Gilchrist⁷ and later Ketron⁸ laid stress on the Bacillus Acnes, Whitfield⁹ emphasized the importance of gastrointestinal disturbances.

On clinical grounds, it has long been suspected that acne vulgaris is caused by some endocrine disturbance, presumably by disturbance of the gonads, and many observers have commented on it. Thus Hollander¹⁰ was impressed with the correctness of the conception that the underlying etiologic factor in acne is somewhere in the domain of the endocrine glands, probably the gonads. According to Schamberg,¹¹ when the phenomenon of the relapse during menstruation in persons with acne is considered in conjunction with the initial onset of acne at the approach of puberty, the inference appears to be justified that an internal secretion from the sex glands plays an important role. Darier¹² stated that localized acne

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of the chin in young women is supposed almost certainly, to indicate utero-ovarian trouble

Cunningham and Luntsford¹³ conducted an interesting investigation among women college students, comparing 2974 girls with acne, with 3185 who did not have acne as controls. No difference was found in respect to the incidence of common disorders, such as constipation, incidence of colds, state of nutrition as expressed by weight, or conditions of the nose and throat, to which a contributory influence on acne is usually ascribed. No relationship between the presence or absence of acne in the fifteen to thirty-four year age group, and such menstrual characteristics as age of beginning, duration, irregularity in interval, amount of pain and flow was demonstrated, thyroid enlargements were found to be associated with a slight increase in acne incidence. In connection with this last finding, it is of interest to note the possibility expressed by Sulzberger¹⁴ and his coworkers, that increased thyroid activity, frequently coincidental with increased gonad activity and leading to increase in circulating thyroxin (the iodine-containing hormone) might explain acne vulgaris as essentially of the same nature as a very chronic iodide acne. Attempts to prove this experimentally by means of thyroxin patch tests did not, however, lend strength to this possibility.

The work of Stokes and King,¹⁵ in demonstrating that there is a familial and heritable element in predisposition to acne vulgaris is significant, and important in prognosis and treatment.

The late Bruno Bloch⁴ called acne, among other diseases, a dyshormonal dermatosis. He noted the fact that eunuchs are said to be immune from acne, and that there have been pathologic cases in which acne appeared in the first years of life when (owing to supra-renal tumor) sexual maturity was precociously developed. In a series of interesting tables and graphs showing the correlation of acne, on one hand, and the commencement of the menses and the appearance of pubic and axillary hair, on the other, he demonstrated clearly that in any age group those sexually developed show a higher percentage of acne than those not sexually developed.

It was Bloch's opinion that acne in its first phase is a consequence of the physiological function of the sex glands, analogous to that which we in general assume for the development of the normal secondary sexual features, such as the formation of terminal hair. The degree of their formation is undoubtedly different. This may be dependent on the fact that the production of sex hormone is varied in strength in each individual, or (and this seems more likely) that the follicular apparatus of the skin (the receptor mechanism) is individually different in its sensibility to this hormone (as for example the type of beard varies in different men). As a result we are faced by the fact that in acne the normal physiological action of a ductless gland—the sex gland—in the skin leads thru transition stages to a final effect which is pathological—a real lesion of the skin, namely acne.

Clinical Investigations

A large amount of circumstantial evidence, clinical intuition, and conjecture implicating the sex glands in the etiology of acne has thus been accumulated, but until recently there was no means of demonstrating exactly the variations from the normal of the function of any sex gland. The newer knowledge of ovarian function, however, has provided a fairly precise method for determining the excretion of estrogenic substance in blood and urine, both qualitatively and quantitatively.

This was initiated by the studies of Stockard and Papanicolaou,¹⁶ Evans and Long,¹⁷ and Allen,¹⁸ and depends on the fact that synchronously with the cyclical changes that take place in the ovaries, there occurs a cyclical change in the uterus and vagina of the animals used, and that the vaginal secretions partake of this change. The estrogenic substance is concentrated by lipid extraction of the blood or urine. It is unnecessary here to go into detail regarding the principles and technic of its isolation and recognition. In our work the method described by Kurzrok and Ratner¹⁹ was used for extracting the hormone from the urine, and that of Frank and Goldberger²⁰ for extraction from the blood. The vaginal spread of the castrated rat is used as indicator.

For the sake of completeness, although the author has had no experience with it, some mention will be made of the testis hormone. This was recognized by McGee²¹ in 1927 in lipid extracts of the testes. The test for the testis hormone is not as clearly defined, and is slower than that for estrogenic substance in the female, and is accomplished by means of the capon test (comb, wattles, and spurs).

It is important, at this juncture, to emphasize the discovery by Smith²² and shortly after by Zondek and Asheim²³ that both ovary and testis remain dormant unless stimulated by the secretion of the adenohypophysis (anterior pituitary or prepituitary gland) and that this gonadotropic factor activates alike the gonads of both sexes.

It was thought that evidence of normality of ovarian function would be indicated by a study of the excretion of estrogenic substance in the urine and blood of patients with acne. Kurzrok's²⁴ studies have shown that normal women between the ages of sex maturity and the menopause excrete from ten to twenty rat units of estrogenic substance per liter of urine throughout the menstrual cycle.

The urines of thirty-four young women who applied to the Vanderbilt Clinic for treatment of acne were examined. The age range was eleven to thirty-three years, twenty-one being under twenty years of age.

The results were as follows:

Strongly positive reaction (10-20 rat units)	No of patients 6
Slightly positive (4 rat units)	82% { 1
Negative reaction	27

In the blood, the work of Frank and his associates²⁵ tends to show that in the normal fertile menstruating woman the concentration of estrogenic substance undergoes regular cyclic variations, and also that the renal permeability of these substances varies in the individual. In view of these possibilities, it seemed desirable to repeat the above observations, estimating premenstrual values for estrogenic substance in the blood of patients with acne.

In normal fertile menstruating women, Frank and Goldberger found one mouse unit of estrogenic substance in forty cubic centimeters of blood taken from the tenth

to the third day premenstrually in forty-four per cent of their patients, while from the third to the first day premenstrually at least one mouse unit was present in the blood of one hundred per cent of the patients. (Average for the entire period seventy-two per cent.) Neustaedter²⁶ found estrogenic substance in the blood of seventy-five per cent of his patients in a similar interval, Mazer and Goldstem²⁷ found the percentage slightly higher in their series (eighty-five per cent).

With these figures representing average norms, we may compare them with the findings in normal menstruating women with acne. Twenty-nine consecutive patients with acne with normal menstrual histories were examined. In none of the patients studied were any other acne-producing factors, dietetic or chemical, detected. Their ages ranged from eleven and one-half years to thirty-four years, and the menstrual interval ranged from twenty-one to thirty-one days.

Forty cubic centimeters of venous blood obtained within seven days of menstruation was assayed for estrogenic substance by the method of Frank and Goldberger. The results were as follows:

Strongly positive reaction (1 mouse unit)	No of patients 2
Weakly positive (less than one mouse unit)	93% { 16
Negative reaction	11

Results of Treatment

Van Studdiford²⁸ treated a number of female patients with acne with a variety of endocrine products, including desiccated ovarian extract, and orchic extract. More recently fifteen patients were treated with estrogenic substance, three doses being given by injection on alternate days one week premenstrually. Of these patients, eleven improved. Sixteen patients in another series were treated with a preparation of gonadotropic substance postmenstrually, as a stimulative measure, followed by the injection of estrogenic substance premenstrually, as a substitutional measure. Eight of the patients treated in this manner showed improvement.

Michael,²⁹ working in cooperation with gynecologists in order to employ the newer endocrine products in the most

suitable manner, treated twenty-six acne patients with hormone therapy. The therapeutic results were poor, and discouraging so far as the influence of the hormone treatment on the acne was concerned.

Lawrence and Feigenbaum³⁰ treated six males and eight females with pregnancy urine extract, with results sufficiently satisfactory to warrant further study. In a subsequent report, Lawrence³¹ treated a series of thirty patients in the same manner, ten were regarded as cured, as they had had no relapse two months after treatment has ceased, while eleven were definitely improved.

The patients in my series number thirty-eight females and two males, practically all of whom were followed for almost two years. The ages of the female patients ranged from thirteen to thirty-three years, the average age being nineteen and eight-tenths. Physical examination, apart from the presence of acne vulgaris, was essentially negative in all, except for two patients who had pulmonary tuberculosis in arrested stages. One patient showed a basal metabolism rate of plus thirty-five per cent, although there were no clinical signs of hyperthyroidism. Seven of the patients were married.

An analysis of the menstrual histories of the patients studied failed to reveal any relation between the acne and any particular menstrual characteristic. A number of the patients reported premenstrual aggravation of the eruption, while a few thought that it was better at that time.

Treatment consisted of five injections of one cubic centimeter each, of a preparation of estrogenic substance (fifty rat units) given at daily intervals, followed by the same number and dosage of a pregnancy urine preparation (containing one hundred rat units to each cubic centimeter) instituted postmenstrually. This amount of treatment was termed one course. After the next period, a similar course of treatment was administered. During this time no local applications or treatments were prescribed.

The two male patients, aged seventeen and eighteen years, were given one cubic centimeter of pregnancy urine extract three times weekly for several weeks, one

made a speedy and complete recovery, while the other showed no improvement.

The results of treatment of the female patients are as follows:

	No of patients	Average no of courses per pt
Definitely improved	13	2.3
Slightly improved	10	1.8
No improvement	15	1.4

It is evident that the total amount of treatment administered bears a definite relation to the end result, as the patients who improved received almost twice as much as those who did not (2.3 courses compared with 1.4).

In connection with this type of therapy, it is pertinent to call attention to the possible ill effects attending prolonged treatment with estrogenic substances. Kunde et al³² in 1930 showed that continued high dosage of estrogenic substances has a distinctly sclerosing effect on the ovaries. Numerous reports have also appeared relating to the carcinogenic properties of estrogenic substances, one observer³³ states that mammary cancer developed in male mice following treatment with these substances, while others³⁴ saw atypical growths, resembling cancerous changes in the uterine cervix of monkeys after prolonged treatment. Recent biochemical studies of Dodds,³⁵ and Marran,³⁶ among others, have demonstrated the close chemical and biological relationships between carcinogenic compounds, estrogenic substances, and Vitamin D, or calciferol.

Comment

The treatment of acne is still a problem, mainly as a result of uncertainty as to its cause, roentgen therapy, formerly regarded as a specific, has not proven completely satisfactory in all cases. It is believed that on the basis of the foregoing investigations one may assume that a definite relationship exists between the estrogenic hormone and acne, and that a deficient secretion of this hormone may prove to be the direct or indirect factor in the causation of one type of acne. While it is known that the anterior pituitary gland governs or regulates gonadal activity, no information is available as to the apparent dysfunction, if any, in the link between it and the ovary. In this con-

nection a possible, although very remote explanation of part of the improvement following roentgen irradiation may be attempted. It is conceivable, that, in the course of routine filtered roentgen therapy for acne, the pituitary gland is affected by the irradiation administered, and in consequence induces a normal gonadal response.³⁷

The evidence is strong then, that one type of acne is caused by disturbance in the sex endocrines. Just what that disturbance is, or how it acts, is not clear. Endocrine therapy for acne is not yet reliable because we do not know the best preparations to use, or how best to administer them. At the same time, in addition to any so-called specific treatment, an appreciation of the secondary factors involved in the management of any acne patient is very important, these have been very clearly outlined by Wise and Sulzberger,³⁸ and need no re-emphasis here.

Conclusions

Estimation of estrogenic substance in the urine and in the blood in two independent series of females with acne yielded

parallel results (1) Eighty-two per cent of patients showed absence or subnormal quantity in the urine, (2) Ninety three per cent of patients showed absence or subnormal quantity in the blood.

This leads to the belief that associated with acne there is abnormality of formation or of utilization of the sex hormone. The exact nature of this aberration and the direction it takes are unknown. It is as yet undetermined whether lack of estrogenic substance or some other basic fault is the cause of acne.

Treatment of these patients with preparations of estrogenic substance and gonadotropic substance produced some favorable results (sixty per cent improvement).

Prolonged treatment with estrogenic substances is not without danger, sclerosis of the ovaries, and carcinogenesis have been reported.

The basic principles underlying the general management of patients with acne must not be overlooked, regardless of what specific therapy may be employed.

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References

- 1 Greenhill, in Tilbury Fox *Diseases of the Skin*, 1st American Edition p. 297, 1871
- 2 Hebra *Diseases of the Skin*, 2 280, New Sydenham Society, London, 1865
- 3 Darier, J. *A textbook of Dermatology* edited by S. Politzer, Lea and Febiger, 1920
- 4 Bloch, B. *Brit J Dermat*, 43 61, 1931
- 5 Unna P. G. *Histopathology of Diseases of the Skin* Macmillan & Co., New York, 1896
- 6 Sabouraud R. L. *Arch dermat syph*, Hop St. Louis 2 537, 1930
- 7 Gilechrist Tr. *Amer Dermat Assoc*, p 97, 1899
- 8 Keiron, L. W. *Arch Dermat & Syph* 15 568
- 9 Whitfield, A. *Brit J Dermat* 46 257, 1934
- 10 Hollander L. *Arch Dermat & Syph*, 3 593, 1921
- 11 Schamberg, J. F. *Ibid*, 4 293, 1921
- 12 Darier, J. *Precis de Dermatologie* Masson et Cie, Paris, p 508, 1928
- 13 Cunningham, R. L. and Luntford, C. J. *California and Western Medicine* 35 22, 1931
- 14 Sulzberger, M. B. Rosenberg A. and Sher, J. *New York State J Med*, 34 899, 1934
- 15 Stokes J. H. and King, A. D. *Arch Dermat & Syph*, 26 456, 1932
- 16 Stockard, C. R. and Papanicolaou G. N. *Amer J Anat* 22 225, 1917
- 17 Long, J. A. and Evans, H. M. *Univ Calif Pub Physiol* 6 1, 1922
- 18 Allen *Amer J Anat*, 30 297, 1922
- 19 Kuzrok R. and Ratner S. *Am J Obst & Gyn* 23 689, 1932
- 20 Frank, R. T. and Goldberger, M. A. *JAMA* 90 106, 1928
- 21 McGee, L. C. *Proc Inst Med Chicago*, 6 242, 1927
- 22 Smith P. E. *Proc Soc Exper Biol and Med*, 24 131, 1926
- 23 Zondek B. and Ascheim, S. *Ztschrift Geburth u Gynak*, 90 378, 1926
- 24 Kuzrok, R. *New York State J Med*, 32 1287, 1932
- 25 Frank, R. T. and Goldberger, M. A. *JAMA*, 94 1197, 1930
- 26 Neustaedter, Theo. Unpublished observations.
- 27 Mazer, C. and Goldstein L. *Clinical Endocrinology of the Female*, W B Saunders Co., Phila., p 165, 1932
- 28 Van Studdiford M. T. *Arch Dermat & Syph*, 31 333, 1935
- 29 Michael, J. C. *JAMA*, 105 327, 1935
- 30 Lawrence C. H. and Feigenbaum J. *England J Med* 212 1213, 1935
- 31 Lawrence, C. H. *JAMA*, 106 983, 1936
- 32 Kunde, M. M., D'Amour, F. E., Gustavson, G., and Carlson, A. J. *Proc Exper Biol & Med*, 28 122, 1932
- 33 Lacassagne A. *Compt rend Acad d sc*, 195 630, 1932
- 34 Engle, E. T. and Smith P. E. *Anat Rec*, 61 471, 1935
- 35 Dadds, E. C. *Lancet* 1 931, 1 987 1 1018, 1934
- 36 Marrian G. F. *Physiol Rev*, 13 185, 1933
- 37 Eddiken Quoted by Mazer and Goldstein (see Ref 27)
- 38 Wise, F. and Sulzberger, M. B. *Practical Medicine Year Book, Derm & Syph* 7 1933

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ULCERATIVE COLITIS

Bacteriological Aspects

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The early recognition of the etiology in a case of ulcerative colitis is extremely important. The appalling morbidity of this disease could be greatly reduced if every physician would take the stand that an ulcerative colitis is amebic or bacterial in origin, unless proven otherwise. Furthermore, the policy of prescribing antiseptics and opiates for a bloody diarrhea, before a thorough bacteriological investigation, is a pernicious one because the etiological study is made very difficult, if not impossible. The prognosis also becomes progressively worse. The vicious chain of events such as diarrhea, loss of blood, anemia, dietary reduction, avitaminosis, loss of weight, weakness, chronicity, and psychoneurotic

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changes, soon lead to a state which is difficult to combat even when the causative agent is finally detected and specific therapy instituted.

Progress in the handling of this problem has been aided by the invention of new instruments, improvement in cultural technic, and added accurate serologic tests. In April 1934, the writer described a Sigmoid Aspirator¹ for obtaining fresh sterile saline suspensions of rectosigmoidal contents from which stool examinations could be made more accurately. In July of the same year, a Simple Sigmoidoscopic Aspirator² was described by means of which material for examination can be obtained under sterile precautions through the Sigmoidoscope directly from the ulcers in the rectum or sigmoid. These instruments (Fig 1 and 2) have been largely respon-



Fig 1 Sigmoid Aspirator in position

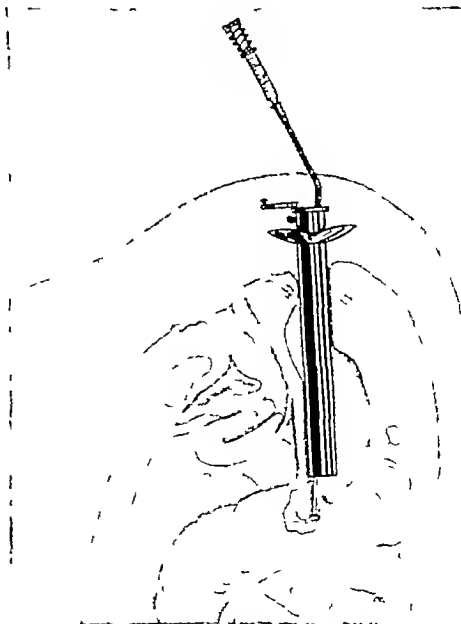


Fig 2 Sigmoidoscopic Aspirator in contact with mucosal lesion under direct vision through sigmoidoscope

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References

- 1 Greenhill, in Tilbury Fox *Diseases of the Skin*, 1st American Edition, p 297, 1871
- 2 Sebra *Diseases of the Skin*, 2 280, New Sydenham Society, London, 1865
- 3 Darier, J. *A textbook of Dermatology*, edited by S. Politzer, Lea and Febiger 1920
- 4 Bloch, B. *Brit J Dermat*, 43 61, 1931
- 5 Unna P. G. *Histopathology of Diseases of the Skin* Macmillan & Co, New York, 1896
- 6 Sabouraud, R. L. *Arch dermato syph*, Hop St Louis 2 537, 1930
- 7 Gilchrist, Tr. *Amer Dermat Assoc*, p 97, 1899
- 8 Ketrion, L. W. *Arch Dermat & Syph* 15 568, 1927
- 9 Whitfield A. *Brit J Dermat* 46 257 1934
- 10 Hollander L. *Arch Dermat & Syph*, 3 593, 1921
- 11 Schamberg, J. F. *Ibid*, 4 293 1921
- 12 Darier, J. *Precis de Dermatologie*, Masson et Cie, Paris, 508, 1928
- 13 Cunningham, R. L. and Luntsford, C. J. *California and Western Medicine* 35 22 1931
- 14 Sulzberger, M. B., Rosenberg A. and Sher J. *New York State J Med*, 34 899, 1934
- 15 Stokes, J. H. and King, A. D. *Arch Dermat & Syph*, 26 456, 1932
- 16 Stockard, C. R. and Papanicolaou G. N. *Amer J Anat*, 22 225 1917
- 17 Long J. A. and Evans, H. M. *Univ Calif Pub Physiol* 6 1, 1922
- 18 Allen *Amer J Anat*, 30 297, 1922
- 19 Kurzrok R. and Ratner S. *Am J Obst & Gyn* 23 689, 1932
- 20 Frank, R. T. and Goldberger M. A. *J.A.M.A* 90 106, 1928
- 21 McGee, L. C. *Proc Inst Med Chicago*, 6.24⁹ 1927
- 22 Smith, P. E. *Proc Soc Exper Biol and Med*, 24 131 1926
- 23 Zondek, B. and Ascheim, S. *Ztschrft Gebirsk*, "Gynak", 90 378, 1926
- 24 Kurzrok, R. *New York State J Med*, 32 1287, 1932
- 25 Frank, R. T. and Goldberger, M. A. *J.A.M.A* 94 1197, 1930
- 26 Neustaedt, Theo. Unpublished observations.
- 27 Mazer, C. and Goldstein L. *Clinical Endocrinology of the Female*, W. B. Saunders Co. Phila. P 165, 1932
- 28 Van Studdiford M. T. *Arch Dermat & Syph*, 31 333, 1935
- 29 Michael, J. C. *J.A.M.A*, 105 327, 1935
- 30 Lawrence C. H. and Feigenbaum J. *New England J Med* 212 1213 1935
- 31 Lawrence C. H. *J.A.M.A*, 106 983 1936.
- 32 Kunde, M. M. D'Amour, F. E. Gustavson, G., and Carlson, A. J. *Proc Exper Biol & Med*, 28 122, 1932
- 33 Lacasagne, A. *Compt rend Acad. d sc*, 195 630 1932
- 34 Engle, E. T. and Smith, P. E. *Anat Rec*, 61 471, 1935
- 35 Dodds, E. C. *Lancet*, 1 931 1 987 1 104⁹, 1934
- 36 Marrian G. F. *Physiol Rev* 13 185 1933
- 37 Eidecken Quoted by Mazer and Goldstein, (see Ref 27)
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paratyphoid B bacillus in one case, and a pure culture of nonhemolytic streptococci in one case. The diplostreptococcus was not considered of primary etiologic importance when found fairly frequently associated with a bacillary or amebic infection. For this reason, only three cases are classified as primary infections with the diplostreptococcus of Bargaen. Twelve cases showed positive dysentery agglutination tests. In eleven of these, dysentery phages were present. Only dysentery phage was found in two cases. Two cases were repeatedly negative serologically and bacteriologically. In other words, thirty-two of the thirty-six patients revealed specific infections by culture or serology (Table II). There were six cases of non-ulcerative colitis in which dysentery bacilli were isolated on culture, but which were not included in this report.

Comment

Some clinicians believe that the *Entameba histolytica*, or the dysentery bacilli,

even when found, are of questionable etiologic significance in ulcerative colitis. The excellent results with antamebic therapy easily disproves this belief as far as the *Entameba histolytica* is concerned. Whether this is true regarding the dysentery organisms is still a moot question. However, given a patient with a mucopurulent bloody diarrhea associated with tenesmus and fever, the finding of dysentery bacilli in the discharges appears to be of definite diagnostic value. Similarly, the finding of the diplostreptococcus of Bargaen, or the paratyphoid bacillus in practically pure culture, directly from the ulcerative lesion should influence the conduct of the case by the clinician.

Since experience has shown that it is difficult to isolate dysentery bacilli in the chronic stage of the disease, agglutination tests were undertaken to detect these cases. The interpretation of the results looms large in the eyes of the critical. When the technical work is properly and sufficiently carried out with controls and

TABLE I—SIGNIFICANT FINDINGS IN 36 CASES OF SO-CALLED NON-SPECIFIC ULCERATIVE COLITIS

Patient	Duration	Etiology	Agglutination	Bacteriophage
R. K.	Acute	E histolytica	Negative	Negative
L. G.	Acute	B Flexner	Negative	Shiga Flexner Hiss Mt Desert
H. R.	Acute	B Flexner	Hiss & Mt Desert	Hiss Mt Desert Shiga Sonne Flexner
M. P.	Acute	Nonhem Strep	Negative	Mt Desert
F. B.	Acute	None	Flexner Hiss	Sonne
M. E.	Acute	None	Hiss	Shiga
M. S.	Chronic	B Flexner	Negative	Negative
R. P.	Chronic	B Flexner	Negative	Negative
H. S.	Chronic	B Flexner	Negative	Negative
F. D.	Chronic	B Flexner	Negative	Negative
S. R.	Chronic	B Flexner & E hist	Negative	Negative
Y. B.	Chronic	B Flexner	Flexner	Negative
B. H.	Chronic	Flexner	Hiss	Negative
C. S.	Chronic	Shiga	Hiss & Mt. Desert	Negative
M. P.	Chronic	E histolytica	Hiss	Negative
H. M.	Chronic	E histolytica	Hiss	Negative
M. C.	Chronic	E histolytica	Hiss Flexner	Negative
S. K.	Chronic	E histolytica	Negative	Negative
A. S.	Chronic	Bargaen dip	Negative	Negative
G. S.	Chronic	Bargaen dip	Negative	Negative
L. S.	Chronic	Bargaen dip	Negative	Negative
P. W.	Chronic	Paratyphoid B	Mt Desert	Negative
G. G.	Chronic	None	Negative	Hiss & Mt Desert
F. B.	Chronic	None	Negative	Flexner
M. G.	Chronic	None	Negative	Negative
C. P.	Chronic	None	Negative	Negative
H. M.	Chronic	None	Hiss	Hiss
P. G.	Chronic	None	Flexner Hiss & Mt. D	Hiss & Mt. Desert
B. B.	Chronic	None	Hiss	Hiss
B. L.	Chronic	None	Flexner Hiss	Negative
S. D.	Chronic	None	Flexner	Hiss
M. B.	Chronic	None	Flexner	Shiga Flexner Hiss Sonne Mt Desert
A. C.	Chronic	None	Flexner	Shiga Flexner Mt Desert & Hiss
B. G.	Chronic	None	Hiss	Mt Desert
			Flexner & Mt Desert	Mt Desert

TABLE II—PERCENTAGE OF PATIENTS WITH SPECIFIC FINDINGS

No. of patients	E. hist	B. Dys	Post-streptococcal	Diplostrep of Bargaen	Paratyphoid B	Nonhemolytic strep
Percentage	5	10	12	3	1	1
	13.8	27.7	33.3	8.3	2.8	2.8

sible for the greater number of specific findings in the cases of ulcerative colitis reported below

Methods of Study

Success in isolating the offending organism depends entirely upon the strict technic used, and the number of specimens examined. A minimum of seventy-two hours is required to determine whether or not a dysentery bacillus is present in the aspirated specimen. Therefore, to rush the bacteriologist for a report only invites error.

The routine procedure consists of the following:

No medication is permitted for at least three days prior to examination, and roentgenologic studies should not be attempted during this period. The patient may be given a saline irrigation early on the morning of examination.

The use of a soap suds enema should be guarded against as the soap interferes with culturing and isolation of pathogenic organisms. It also inhibits the motility of amebae when present, and renders their recognition more difficult.

In adults, the purulent bloody exudate is aspirated directly from the base of the ulcer under direct vision through the Sigmoidoscope. After the specimen is obtained it is immediately examined at the bedside for the *Entameba histolytica*, using a warmstage microscope. Cultures are made on blood agar, on five or six Endoplates, and in glucose broth. Plain broth tubes are also inoculated for the detection of bacteriophage. At the same time, smears are made for study with acid-fast and Gram stains. It is essential that all culturing be done at the bedside. The predominating organism of the smear is noted, and the result is compared with the cultural findings. (At present we use in addition to Endo's media, plates of MacConkey's bile salt agar and brilliant-green agar.) About ten c.c. of blood is collected for dysentery agglutination tests. If the findings are negative at the end of seventy-two hours, the procedure is repeated until three to five negatives are obtained before the case can be classed as one of nonspecific ulcerative colitis. Although this investigation is time-consuming, the seriousness of the disease justifies it. Recently, a patient was sigmoidoscoped five times before the aspirated specimens finally revealed the Flexner dysentery bacillus on culture. In most cases, two or more sigmoidoscopic examinations with aspiration of

material were necessary before positive findings were obtained.

If the patient is an infant, a saline suspension is aspirated by means of a catheter inserted into the rectum. The free end of the catheter is attached to a sterile ten c.c. syringe containing warm sterile saline solution. The saline is injected and aspirated repeatedly until a satisfactory suspension is obtained. With an older child the same routine can be followed, although it is preferable to aspirate directly from the lesion through a child-size sigmoidoscope.

Examination of stool specimens alone are unreliable. A patient (M F) fifty-five years of age was seen in the dispensary complaining of a bloody diarrhea, intermittently, for a period of twenty-five years. Stool specimens were sent to the laboratory on numerous occasions with negative bacteriological reports. Finally, a warmstage microscopic examination of exudate aspirated direct from the ulcerations through the sigmoidoscope revealed fields swarming with actively motile amebae containing ingested red blood cells. Antamebic therapy promptly cured this patient.

Similarly, a sixteen year old girl (M S) with chronic ulcerative colitis gave a five year history of illness with many admissions to hospitals, but at no time was anything of significance found in her stools. Bedside culturing of aspirated exudate direct from the lesions revealed many colonies of the Flexner dysentery organism.

Carriers of amebae or dysentery bacilli are best followed up by culturing specimens aspirated direct from the inflamed mucous membrane, rather than by studying cultures made from the stool. An experience occurred recently where stool cultures of a convalescent were repeatedly negative, while culture of one aspirated specimen yielded colonies of dysentery bacilli.

Results of Study

From May 1 to December 1, 1935, during a period of seven months, thirty-six cases of ulcerative colitis were studied in the above manner (Table I). Most of these had been diagnosed as nonspecific from the sigmoidoscopic appearance, or from a negative stool examination on one or two occasions. Nevertheless, dysentery bacilli were isolated from aspirated specimens in ten cases, including a double infection with the *Entameba histolytica* in one case, the *Entameba histolytica* in five cases, the *diplostreptococcus* of Bagen in practically pure culture in three cases,

PNEUMONIC TYPE OF BACILLARY DYSENTERY

JOSEPH FELSEN, M D, *New York City*

In a previous communication¹ it was stated that bacillary dysentery was a systemic disease due to *B dysenteriae* and its toxins in which the intestinal lesions represented only part of a more generalized pathology. It was further stated that the clinical manifestations arising from disordered function in other organs sometimes overshadowed the classical dysenteric symptoms attributable to the intestinal tract. The meningitic, appendicular, and agranulocytoid types have been described.^{2,4} Several additional examples of the protean character of bacillary dysentery have recently been noted in the New York City area in which the disease simulated lobar pneumonia at the onset.

The association of upper respiratory symptoms with mesenteric lymphadenitis in acute bacillary dysentery has previously been encountered chiefly in children, particularly in the Sonne-Duval type.⁵ The present form has thus far been noted only in adults and all have been of the Flexner type. During the incubation period of twenty-four to forty-eight hours the patient complains of malaise, headache, anorexia, nausea, and indefinite muscle pains or "body aches." This is followed by a chill and sharp rise in temperature which may reach 105 or 106°F. There is marked prostration, a rapid pulse, and a short non-productive cough. The face is flushed, but there appears to be no respiratory difficulty or pain referable to the chest. Upon auscultation some fine moist rales are heard which persist after coughing. The cough is very transitory, but a roentgenogram of the chest of one patient taken during the first twenty-four hours showed a definite localized area of increased density, approximately ten cm in diameter, suggestive of a beginning pneumonic consolidation. Subsequent pictures, however, revealed this to be an abortive process with complete subsidence of the pathology in about forty-eight hours.

There is nothing as yet to indicate the

true nature of the infection, although the clinical impression is that of acute lobar pneumonia. Within twenty-four hours, however, the patient complains of abdominal discomfort or cramps which is soon followed by frequent blood-tinged, mucoid bowel movements. These may amount to as many as thirty during twenty-four hours. Frequently there is marked tenesmus and the bowel movement consists wholly of blood-flecked mucus. In one instance this material contained *B dysenteriae* Flexner in pure culture. With the onset of diarrhea the temperature may recede slightly.

The clinical course is now typical of bacillary dysentery with its dehydrating and exhausting watery bowel movements and almost continuous cramps. Spastic ileum and sigmoid are readily palpated and, where the abdominal wall is thin, enlarged mesenteric or mesocolic nodes may be felt at or near the ileocecal angle. Sigmoidoscopic examination on successive days reveals the characteristic three stage pathology of the intestinal lesions, namely (1) Punctate follicular hyperplasia (of the solitary acuminate lymph nodules), (2) Punctate follicular necrosis with discrete ulceration, (3) Confluent ulceration with geographic or serpiginous mucosal denudation. The mild cases often do not progress beyond the second stage. The average duration of the disease is seven to ten days by which time the temperature has gradually receded to normal, the intestinal movements have markedly subsided, and the general mental and physical state have greatly improved. There then follows a period of obstinate constipation which represents Nature's effort at splinting the bowel to favor healing. Any patient whose intestinal lesions have not healed by the end of the third week should be regarded as a potential case of chronic distal ileitis or ulcerative colitis. Prompt treatment and persistent follow-up in the early stage of chronic dysentery are essential for the ultimate cure of this most obstinate disease. In this connection

positive sera, and using agglutinable organisms, the findings are of significance. A definite agglutination with Shiga or Sonne dysentery strains in dilutions of 1:40 or higher is considered diagnostic. With the Flexner, Hiss, and Mt. Desert strains, an agglutination of 1:160 is required for a positive diagnosis. Furthermore, repeated agglutination tests showing a definite rise in the titer of the patient's serum has been considered of even greater value in establishing the final diagnosis.

The presence, or absence, of dysentery bacteriophage in the rectal discharges of a patient suffering with ulcerative colitis, is of interest purely from a confirmatory point of view. Felsen³ (New York) and Feemster⁴ (Boston) have shown that valuable evidence may be obtained by studying the stool for the presence of dysentery phage. Friedemann⁵ in 1921, felt that the lytic effect of the phage might be responsible for the difficulty in recovering the dysentery organisms. In this series, two patients showed dysentery bacilli and dysentery phages at the same time.

Summary and Conclusions

1. An effort should be made to deter-

mine the etiology of any case of ulcerative colitis as early as possible.

2. Material for bacteriologic study should preferably be obtained by aspirating exudate direct from the lesion through the sigmoidoscope.

3. Specimens must be examined and cultured repeatedly if previous findings are negative.

4. No medication should be given for at least seventy-two hours prior to cultural studies.

5. Intensive investigation of thirty-six cases of ulcerative colitis, acute and chronic, revealed the *Entamoeba histolytica* and the dysentery bacilli as the most common etiologic agents. Next in frequency, is the *diplostreptococcus* of Bargen.

6. Progress in the etiology of ulcerative colitis will depend upon the close cooperation between the clinician and the laboratory staff.

955 EASTERN PARKWAY

References

1. Fradkin, W. Z. J. A. M. A. 102:1381, 1934.
2. Idem. *Ibid.* 103:21, 1934.
3. Felsen, J. N. Y. State Jour. of Med. 35:576, 1935.
4. Feemster, Roy F. J. Infect. Dis. 55:190, 1934.
5. Friedemann, U. Deut. Med. Woch., 43:1524, 1921.

"PACIFIC COAST ABORTION RING"

The abortion industry has reached a point where a "tristate illegal operations syndicate" was recently exposed on the Pacific Coast, doing business in Washington, Oregon, and California. The principals were haled before Judge Arthur Crum, of the Superior Court for the County of Los Angeles, the trial was short, sharp and decisive, and eleven of them were found guilty and promptly sent to the penitentiary.

We are told in *California and Western Medicine* that the "syndicate" secured, among other activities, the cooperation of a former enforcement officer of the California Board of Medical Examiners, now for the time being committed to jail by the Court because of his efforts to intimidate witnesses for the State.

The leaders of the syndicate, indeed be-

came so brazen that they even gave defiance to the California Examining Board, in the belief that the safeguards and loopholes, which their legal counselors had advised them to use in their operations, would be sufficient to protect them from attack by the State's authorities. The syndicate's plan of operation was originally conceived by a lay citizen of the State of Washington, a lumberman who went so far as to create a "Medical Acceptance Corporation" (after the style of automobile financing agencies), so that payments, with rates of interest appropriate under the circumstances, might be secured from some of the patients. So-called clinics were established in about ten of the Coast cities. The money profits are stated to have approximated an annual sum of something like one million dollars!

POSTOPERATIVE SEDATION

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This study was undertaken with the purpose of determining what value there may be in systematized postoperative sedation of surgical patients, with the employment of a routine drug treatment. Barbituric acid derivatives, as examples of well-known and widely-used drugs, were the sedatives under consideration.

The material studied comprised one hundred cases of gynecological surgery. The average age of the patients was thirty-four. Three of them had symptoms of cardiac dysfunction of mild degree. Otherwise they were patients of normal health except for their gynecological conditions.

There were 114 operations on these patients, sixty-seven of which were done through abdominal incisions, nine were drained, and in two the combined abdomino-perineal approach was used. There were fourteen operations for vaginal repair, ten for cervical repair, and twenty-three cases which included dilatation and curettage.

In the hundred cases studied, fifty-nine of them were given barbituric acid derivatives and the dosages were computed as comparable to that of phenobarbital, which was the single derivative most frequently used.

Preliminary Narcotics and Anesthetics

Morphine grain 1/6 and atropine grain 1/150 were used as a preliminary narcotic in seventy-two cases, of which sixty-nine were for gas-ether anesthetics, two for gas-oxygen, and one for ethylene. Morphine grain 1/4 was used in eight cases, six of them with spinal anesthetics, and two with gas-ether. Morphine grain 1/6 was used ten times, five for gas-ether, two for gas-oxygen, and three for spinal anesthetics. No preliminary narcotic was used in ten instances, of which seven had gas-ether, and one each had gas-oxygen, ether, and local anesthetics.

Postoperative Narcotics

The routine postoperative care included morphine for the first twenty-four or forty-eight hours. By way of indicating that this series of cases had what may be regarded as usual doses the following data were revealed:

8 cases had no morphine following the operation
7 cases had morphine not exceeding grain 1/4 as a total
21 cases had morphine not exceeding grain 1/2 as a total
23 cases had morphine not exceeding grain 3/4 as a total
21 cases had morphine not exceeding grain 1 as a total
19 cases had morphine not exceeding grain 1 1/2 as a total
1 case had morphine not exceeding grain 2 as a total

In addition thirty-one cases had codeine, fourteen of them using more than two grains and seventeen using less than two grains.

Postoperative Sedation

As mentioned earlier, the sedative chiefly employed was phenobarbital, and when other barbiturates were used (in a small percentage of cases) comparable doses of phenobarbital were substituted, for the data. Fifty-nine cases were given phenobarbital. In contrast, forty-one received practically no postoperative medication beyond the morphine and codeine limits already described.

The phenobarbital was administered in doses of 1 1/2 grains, 1 grain, and 1/2 grain two or three times a day, starting usually on the day after operation. The higher dosages would be used at first and the lower ones then used to taper off the sedation as the patient gradually returned to normal condition.

The figures compiled from the charts of the patients showed that the average dose was 24 grains of phenobarbital per day, and the average number of days for its use was nine.

it is important to remember that acute bacillary dysentery may affect any part of the small or large intestine, but has a special predilection for the distal ileum and colon. It is at these very sites that the chronic lesions are also found (chronic distal ileitis, nonspecific granuloma, chronic ulcerative colitis).

Diagnosis of the pneumonic form of bacillary dysentery is based upon the clinical symptomatology already outlined, positive fecal culture during the first week and a rising agglutination titer and bacteriophage after the first week. The time factor as stated is a general one and subject to individual variations. Abortive forms of the disease may last only a few days. The importance of early recognition of this unusual form of bacillary dysentery need hardly be stressed from the standpoint of contact infection. Unless prompt isolation is effected early in the disease many secondary cases may arise since the intestinal contents are often teeming with specific organisms during the first week.

Therapy varies with the stage at which the disease is encountered. Castor oil should be used early in imitation of Nature's attempt to eliminate the organisms and toxins and to prevent their reabsorption through ulcerated areas. Antidysentery serum is most effective during the first twenty-four to forty-eight hours. Bacillary dysentery is usually a self-limited disease with a tendency to spontaneous recovery in about ninety per cent of the cases within ten days. The other ten per cent develop the chronic lesions above noted, these figures being based upon the follow-up studies of the Jersey City epi-

demic⁶ due to the Flexner organism. For dehydration and toxemia, liberal amounts of fluid by mouth or five per cent dextrose in normal saline by phlebotomy should be used. In chronic dysentery the use of D-C vaccine, D-C antiviral, and intestinal oxygenation is advisable.⁷

Active immunization against the primary and secondary invaders (*B dysenteriae*, *enterococcus*, *B coli*) is now being employed routinely in every case of acute dysentery as soon as the clinical condition permits. Used in conjunction with preventive therapy (i.e. public health measures directed against acute dysentery) it is expected to bring about a lowered incidence or perhaps complete eradication of the chronic intractable forms of the disease.

Summary

The pneumonic form of bacillary dysentery is characterized by its abrupt onset with chill, marked hyperpyrexia, and pulmonary manifestations. These are very transitory and are succeeded within twenty-four hours by the intestinal symptoms characteristic of dysentery. The protean nature of bacillary dysentery is noted and the essentials of diagnosis and therapy outlined.

667 MADISON AVE.

References

- 1 Felsen, J. *Am J Path.* 12 395, 1936
- 2 Felsen, J., Rundlett, E. V., Sullivan, J., and Gorenberg, H. *J. A. M. A.* 103 1055, 1934
- 3 Felsen, J. *Am J Dis Child* 50 661, 1935
- 4 Idem, N. Y. *STATF J MED* 35 1037, 1935
- 5 Felsen, J. and Osolsky, A. G. *J. A. M. A.* 103 966, 1934
- 6 Felsen, J. and Gorenberg, H. *Am. J. M. Sc.* 192 S53, 1936
- 7 Felsen, J. *Am J Dig Dis and Nut* 3 86, 1936

The division of psychiatry of the department of hospitals, city of New York, held an interesting meeting on December 16, at the Bellevue Hospital, New York City.

On the program were Dr S S Goldwater, chairman, commissioner, department of hospitals, Dr Samuel W Hamilton, national committee for mental hygiene, "The Problem of Psychiatric Care in New York City," Mr Stanley P Davies, general director, charity organization society "Psychiatry from the Standpoint of Social

Agencies," Dr Karl M Bowman, director, division of psychiatry, "Activities of the Division." Then followed five-minute discussions by Hon A H MacCormack, commissioner, department of correction, Dr Frederick W Parsons, commissioner, state department of mental hygiene, Dr Foster Kennedy, Mr Douglas P Falconer, general secretary, Brooklyn bureau of charities, and Hon Cornelius F Collins, justice, court of general sessions.

POSITION OF THE URETERS AND TRIGONE IN PROLAPSUS UTERI

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In gynecology one of the largest groups during or past middle age consists of cases of prolapsus uteri where the ligaments and fasciae have been torn or relaxed allowing the pelvic organs to descend. In these cases the vaginal wall may present beyond the introitus, the cervix may appear or the uterus itself may be palpable outside the vulva. The operation of choice¹ may be anterior and posterior colporrhaphy, posterior colporrhaphy and suspension, transposition²⁻⁴ with amputation of the cervix or vaginal hysterectomy⁵. Whatever operation is chosen, the ureter and trigone are two of the most important structures in the anatomy of the region.⁶⁻¹⁰

In operating upon these patients, we should naturally expect to find the ureter in the same relations to surrounding structures as in the normal subject, i.e. passing under the uterine vessels below the base of the broad ligament lateral to where it is inserted into the cervix. It seems from our observations that this relationship may be distorted and the extent of prolapse of the trigone and the ureters is not always obvious clinically upon vaginal examination.

In Tandler and Halban's⁷⁻⁸ "Anatomie und Aetiologie der Genital Prolapse beim Weibe" they state that "the trigone runs in the greatest number of cases stretched backwards and forms a part of the anterior wall of the cystocele." The border between the abdominal portion of the bladder and the cystocele corresponds to the genital hiatus.⁹ They also state that "dilatation and hypertrophy of the ureters is almost typical. The dilatation exists mechanically through obstruction which occurs at the hernial ring as the site of constriction of the ureters." Only in those prolapses is there no hydrourer

in which the cystocele is so small that the ureter opens into the bladder above the genital hiatus." In another place, they say "often only the recessus retrouretericus, often also the trigonum and bladder fundus, finally also a part of the body of the bladder appears pulled into cystocele."

Brettauer and Rubin¹¹ state "the pull on the ureters exerted by the abnormally dependent cervix and uterus forms a constriction about the point where the post-mortem studies of Tandler and Halban and our pyelograms on the living subject show it to be." The constriction to which the prolapsed bladder is subjected at this genital rupture ring is shared by the ureters and hence result the stasis and dilatation." They believe the compression is due to the uterine vessels.

Kelly¹² says in a rare form the bladder may stay within the pelvis, in prolapsus uteri.

Philipp and Krantz¹³ in their work on prolapse of the bladder, state that the bladder in the trigonal portion is unyielding.

Our attention was first called to the importance of the position of the trigone in prolapsus uteri in July 1933. A patient (M S, aged 59) came with a complete procidentia and in addition a walnut-sized fibroid at the cervico-fundal junction, which presented outside the introitus. We expected some difficulty in operating and decided that cystoscopic examination might be of value in showing the relationship of the bladder and ureters to this tumor. This cystoscopy showed that with the uterus prolapsed the ureters were about four inches from the tenaculum on the cervix, i.e. there was relatively little prolapse of the ureters—less than one would have expected from Tandler and Halban's studies on the cadaver.

This led us to cystoscope other patients with prolapse and since then we have cystoscoped twenty-two other women

I wish to thank Dr Anne Elizabeth Kühner and Miss Margaret Bowie, R N, of the Department of Urology for their help in this work.

Postoperative Course

The postoperative course of the patients was followed and a record made to see whether those patients who received phenobarbital or its equivalent had more or less of the postoperative complaints than those who were given no routine sedatives. Those who received the phenobarbital did so in regular daily doses without specific regard to complaints.

The details of the findings may be briefly stated under the headings indicated below.

1 Distention and gas pains These complaints are judged by the amount of bowel activity impelled for their relief.

All cases with phenobarbital required an average of one cathartic or enema for one day only.

Two-thirds of the cases without phenobarbital required an average of 24 enemas for an average of two days.

2 Coughs Two cases with phenobarbital (0.3% of such cases) had sufficient coughing to be recorded on nurses' notes. Ten cases without phenobarbital (24% of such cases) had coughs for an average time of 26 days.

3 Hospitalization The abdominal cases which received phenobarbital were discharged from the hospital on an average of about the fifteenth day, whereas, those who did not receive the medication were discharged on an average of approximately the nineteenth day.

The perineal-cervical cases with and without phenobarbital were discharged on an average of the tenth and ninth days, respectively.

It should be noted that all these cases were treated by one doctor, who would be expected to use similar criteria for discharging all the patients.

Summary

One hundred gynecological cases which had been operated upon by one man were studied with the purpose of determining the value of routine postoperative sedation.

The anesthetics and pre- and postopera-

tive narcotics for the types of operations in each group were practically identical throughout the series. In the hundred cases reviewed, fifty-nine of them had been given barbiturates in routine doses, and the remaining forty-one had no regular sedation.

Distention and gas pains, as indicated by cathartics and enemas given, were more pronounced in the non-barbiturate group. Coughs were markedly more frequent in the patients without the phenobarbital. The abdominal cases with the routine sedation were discharged from the hospital on an average of four days earlier than those without the sedative routinely prescribed.

Comment

It has been said that figures may be obtained to prove anything. Unfortunately the data revealed in this study were not so convincing as the general impression which is given to an observer of this series of patients. Not only did the patients receiving the routine barbiturates seem more comfortable and less disturbed during their convalescence than those without that therapy, but happily the figures showed that the abdominal cases left the hospital four days earlier on an average, than the cases without phenobarbital.

It is the belief of the writers that the decrease in the distention and coughing was of benefit to those patients receiving barbiturates, not only in lessening their distress but being of some import in their recovery. Also, the patients' sense of comfort and peace of mind are enhanced by routine sedation.

It is worthy of note that there has been no tendency for patients to seek further sedation after the drug was stopped, either before or after discharge from the hospital.

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Hastily gotten together or impromptu medical programs occasionally do measure up to a good standard, but in the long run, that society has the more valuable meetings

whose program committee properly fulfills its functions by carefully planning in advance.

—*California and Western Medicine*



Fig 2a Uterus prolapsed, tenaculum on cervix. Two piece catheter with x-ray portion ending at urethral meatus no prolapse of trigone and ureters (Case 2)

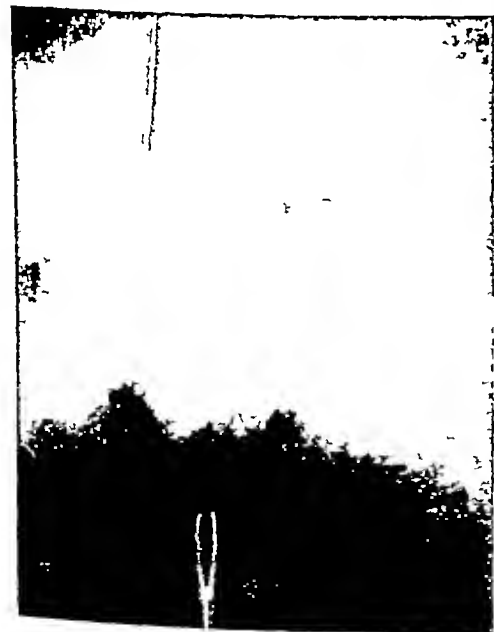


Fig 2b Cystogram of same case with uterus prolapsed



Fig 3a Considerable prolapse of ureters and trigone and descent of urethra. Pointer rests on urethral meatus (Case 3)



Fig 3b Same case after operation

and hence the degree of prolapse of the trigone and the ureters

Seven cases are presented in which cystoscopic studies demonstrate the variation which may occur in the position of the trigone and ureters

CASE 1 FW, age sixty-six, a patient with complete prolapse since 1894, there was a descensus of the urethra, a prolapse of the ureters, and a prolapse of the bladder

toscope was put in again after being withdrawn to see that the catheters remained in position. In this way the comparison of the first and second plates showed the change of position of the ureteral meati



Fig 1a Descent of urethra and prolapse of ureters (Case 1)



Fig 1c. Lateral cystogram of same case.



Fig 1b Cystogram of same case.

Of these twenty-three patients, eleven have been operated upon by various methods and it now appears that cystoscopy may be of some aid in deciding the operative procedure, i.e. the degree of prolapse of the trigone and the ureters may be an important deciding factor in choosing the type of operation

The method followed at first was simple cystoscopy with ordinary x-ray catheters and in some cases cystogram. After we had done several cases, Dr. Anna Hubert suggested a two piece catheter with the upper x-ray portion ending at the ureteral meatus, thus marking on the x-ray the location of this meatus and hence the trigone and the position of the lower portions of the ureters.

The cystoscope was inserted as in routine cystoscopy after the prolapse had been replaced. Some of these cases showed marked fasciculation and trabeculation as well as distortion of the bladder, urinary retention, residual urine, and a membranous exudate of pus which made it difficult to find the ureters and necessitated treatment before catheterizing the ureters. When the ureteral catheters were passed, and the cystoscope withdrawn, a plate was made. The first plate was taken with the prolapse replaced. The uterus was then allowed to descend, a tenaculum placed on the cervix, and a second plate made. In some of the early cases the cystoscope was not withdrawn but it was found that it tended to support the structures, and in all later cases it was withdrawn. In some cases the cyst-



Fig 6a. Little or no descensus of ureters (Case 6)



Fig 6b. Little descensus of bladder

amination was "the urethra is held up fairly well, large cystocele, complete prolapse." Cystoscopy showed prolapse of the ureters and urethra. This case was carefully operated upon by one of the most expert members of the staff. The result with simple anterior and posterior colporrhaphy was poor. She returned with a cystocele and was given a pessary.

In this case, before operation the prolapse of the ureters and urethra was not diagnosed clinically, although it was evident upon cystoscopic examination (Fig 5).

CASE 6 D L, age forty-four. Complained that the uterus had been falling down for three months. "The womb seems to come clear down." The vaginal examination showed the cervix projecting beyond the vulva, cystocele, rectocele, fundus large, posterior.

Cystoscopy showed little descensus of the ureters, little or no descensus of the bladder. Operation: amputation of the cervix, perineorrhaphy, Gilliam suspension. The result was good (Fig 6a-b).

CASE 7 V P is shown because it is unlike any of the preceding. This patient has had two operations for prolapse and still has a very large prolapse. In this case, however, the rectocele is the more prominent part of the prolapse. The cervix is about two inches beyond the vulva but almost the whole posterior vaginal wall is prolapsed. There are a large rectocele and an entero-

cele posteriorly, anteriorly a band beneath the urethra holds firmly. Cystoscopy shows the trigone just below the pubis and the ureters in a fairly deep loop below this. Evidently all the pelvic organs but the trigone descended causing the ureter to lengthen and form a loop as the result of descent of the posterior part of the pelvic floor (Fig 7).

It appears from studies with the cystoscope upon living subjects that in pro-



Fig 7. Different type of case (Case 7)

down nearly to the tenaculum at the external os. This patient was not operated upon and the x-rays are shown merely to illustrate a type of complete prolapse of the ureters and trigone. This is what one would expect to find in all cases (Fig 1a-c).

CASE 2 I.H., age sixty-three, suffered from a laceration thirty-one years ago and



Fig 4a Before operation, no great degree of prolapse of trigone and ureters (Case 4)



Fig 4b After operation

came complaining of a mass between the legs. She had no urinary symptoms, no frequency or dribbling, and stated that the urine was "hard to come out." We found no prolapse of the urethral meatus, but a complete procidentia with prolapse of the anterior and posterior walls of the vagina.

The top of the fundus was beyond the vulva. There was a firm band immediately below the urethra across the urogenital triangle. On cystoscopy we found practically no prolapse of the ureters showing that the portion of the bladder which had been carried down was the posterior wall and not the trigone. This case is shown to illustrate the opposite type from case 1 (Fig 2a-b).

CASE 3 M.R., age fifty-eight, came complaining of dribbling of urine and a mass between the legs. She had complete prolapse of the uterus and the urethra torn away from the pubis. Cystoscopy showed pro-



Fig 5 A type of case repaired frequently by anterior and posterior colporrhaphy with poor result. Pointer rests on urethral meatus. (Case 5)

lapse of ureters. Postoperative plates show a good result which is also found clinically (Fig 3a-b).

These patients both had interposition operations. In the case where the trigone was prolapsed it was necessary to suspend the fundus very high beneath the urethra.

CASE 4 D.T., age sixty-nine. Complete uterine prolapse. Cystoscopy showed no great degree of prolapse of the ureters. In terposition operation. At operation there was a definite band from either side of the cervix at the level of the internal os, the two branches joining above in the middle line at the posterior portion of the trigone.

Postoperative result was good (Fig 4a-b).

CASE 5 J.L., age forty-seven. She was operated upon in Michigan fourteen years ago for "fallen womb," an abdominal operation. The condition recurred in two months and the doctor wanted her to have another operation. The note made on vaginal ex-

TONSILLECTOMY VS. ELECTRIC COAGULATION

The Present Status

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In reviewing the medical literature on the use of electricity and its application to medicine, I find that about every seven or ten years for the past half century, electricity in some form or other has been introduced as a cure-all, or as a substitute for surgery in some of its phases. The fad has run its course for a couple of years only to decline and reach its true status where it may remain for a while, until some enthusiast, or group of enthusiasts, revives it again for another period. However, we must acknowledge that with every wave of enthusiasm there is an improvement in the apparatus and in the method of application.

We, of the regular school, are quite often criticized for our obstinacy in refusing to accept all the wonders of electricity as applied to medicine. Because of the fact that there are some virtues in the newer methods, such as the different lights and high-frequency currents, the electrocoagulation and cutting current, there has opened up quite a field for the irregulars who have taken advantage of the opportunity and have advertised widely and enthusiastically in the second rate journals, the public press, and through syndicated articles. These advertisements have been so extensive, and the public has become so conversant with the application of electricity in some of its phases, that many of my confreres have been forced to equip their offices with electrical apparatus in self-defense, and to satisfy some of their patients who come to them demanding electric treatment. It is upon these regular men who have approached the problem with an open mind and who are willing to be converted, if the facts were sufficient to convert them, that I have depended for some of the data from which this paper is written.

I can recall that in 1924 or 1925 there was a considerable amount of written material on the subject of the use of radium for the removal of tonsils, and I

am sorry to say that some of the literature at that time had the sanction of, or was written by, some of the men who were prominent in otolaryngology. About this time, the writer, through the courtesy of one of the largest radium companies in America, had consigned to him a fair amount of radium to be used in the clinics of Manhattan Eye, Ear and Throat Hospital. Among the experiments we carried on at that time was the use of radium as a substitute for tonsillectomy. Our results were so disappointing that I took a trip to a distant city to interview the gentleman who had written so strongly about the virtues of radium as a substitute for tonsillectomy. He assured me that I must be away off in my technic or otherwise I would get results, and I left him feeling that my radium wasn't radium at all. However, a trip to the local special hospital and a talk with the interns and other doctors around the hospital convinced me that the gentleman in question was much too enthusiastic to give an honest opinion on the value of radium in removing tonsils. Hence, I have been very skeptical about much that I have read concerning the value of electrocoagulation.

Another method of removing tonsils which was being used about this time was x-ray, and many people were spending their money to have their tonsils removed by this method at twenty-five dollars per application. I am sure that many of you can remember the numerous and convincing articles which were written about the ease and thoroughness with which tonsils could be shrunk by x-ray therapy without sequelae, complications, or bad results. This phase, fad, cycle, or whatever you may call it, lasted about two years until the skin burns, dry throats, secondary tonsillitis, and necessary tonsillectomies became so numerous that the men advocating this form of treatment felt that it was the better part of discretion

lapsus uteri there are varying degrees of prolapse of the trigone of the bladder and the ureters and also varying degrees of descent of the urethra. This would seem to presuppose varying degrees of prolapse of the trigonum urogenitalis. Indeed, in some cases there is a little or no prolapse of the trigone and ureters and the portion of the bladder which is carried down is the posterior bladder wall or fundus. This is the portion which is closely bound to the anterior surface of the neck of the uterus and to the upper part of the wall of the vagina.⁶ This variation in the anatomy, we believe, may account for the fact that some cases are cured without any difficulty, and others return for operation time after time. Where there is prolapse of the trigone the repair seems much more often unsuccessful, and if the trigone is prolapsed it must be replaced to effect a cure. A simple repair will probably not suffice.

Prolapses also vary according to which wall of the vagina descends first and in some cases apparently the drag of a rectocele may pull the ureter down in a loop below the ureteral orifice.

Besides the position of the trigone and the ureters, in prolapsus, the position of the urethra is important, i.e., the degree of urethral descent or the extent to which the urethra is pulled away from the pubis. This is shown partly by the position of

the external meatus with relation to the pubis as seen in the x-rays. It is also shown by the direction which the urethra follows from the external meatus, i.e., whether its direction from the meatus is upward behind the pubis, or downward, as the patient lies on the table. This is easily shown by inserting a catheter into it and is not always obvious upon palpation. If the urethra is torn away from the pubis or if the trigone is prolapsed the case is difficult to cure and both must be replaced. In the interposition operation in these cases the uterus must be sutured near enough the pubis to prevent the recurrence of the cystocele, i.e., the suture through the vaginal tissues under the pubic arch and through the fundus should be high enough to sling the urethra and trigone up in their proper position.

Conclusion

In prolapsus uteri there may be associated varying degrees of prolapse of the trigone and the ureters. It appears that where there has been sufficient trauma to cause the trigone and ureters to prolapse, the case is more difficult to cure. Where the trigone and ureters and urethra have descended, they must be replaced to effect a cure. In difficult cases cystoscopy may be of help.

104 E. 40 St.

References

- 1 Mayo W J *J.A.M.A.*, 59 1421, 1912
- 2 Dührssen *Arch. fur Gyn.*, 47 H2 285, 1894
- 3 Watkins T J *Amer Jour Obs and Dis of Women and Children* 65 No 2 1912
- 4 Everett, H S *Surg., Gyn and Obst* 61 403, 1935
- 5 Goffe B H *Ibid.*, 57 763, 1933
- 6 Cunningham, D J *Manual of Practical Anatomy*, 8th ed page 491, 1930
- 7 Tandler and Halbau *Anatomie und Aetiologie der Genital Prolapse beim Weib* Wien and Leipzig, 1907
- 8 Idem *Topographie des Weiblichen Ureters* Wien and Leipzig 1901
- 9 Farrar, L. K. P. *Fascia and Ligaments of the Pelvic Floor* Gynecology, page 288-304 H A. Kelly New York and London, 1928
- 10 Rawls, R. M. *Urethrocele Cystocele and Uterine Prolapse* Cutting Nelson New Loose Leaf, Vol. 1, page 337-342
- 11 Brettauer and Rubin *Am Jour Obst & Gyn.* 6 696, 1923
- 12 Kelly H. A. *Operative Gynecology*, p. 622 1909
- 13 Philipp E and Krantz, H *Zentralblatt fur Gyn* 58 3025, 1934

The physician who has not had the comprehensive experience of general practice has neither the perspective nor the spiritual discipline for genuine professional achievement—*New York Medical Week*

medical meetings is significant of an effort to keep one's medical information dated today—Dr R L Sensenich president, Indiana State Medical Association

Attendance at a reasonable number of

Were it not for the poverty of the soil in defensive essences, the seeds of disease would never grow—Leonard Williams

and granulation, a sloughing area. They say that in old people it is the procedure of choice. I do not see their argument here, for the writer and many of his conferees do not hesitate to operate on persons sixty-five or seventy years of age because they fear hemorrhages or complications. I do not believe that old people bleed any more than younger adults, and sometimes they bleed less, and they convalesce just as rapidly. I recently operated upon a doctor's father, seventy years of age, removing his tonsils under local anesthetic for a persistent iridocyclitis. In addition, this second class of men say that in luetic cases, electrocoagulation should be used. Who wants to take the tonsils out of a fellow in secondary lues, what is the need for it? If the patient is under treatment or has had treatment, he will not run any more risk than any other. If he hasn't had treatment, his tonsils should not be removed by any method until he has had sufficient treatment. As for tuberculosis, certainly you would not advise an operation upon an active case of tuberculosis, such as a bed case or a semi-bed case. When they are up and around, such cases even though they may occasionally have a positive sputum, do excellently under a local tonsillectomy.

The third type of man is the one who would have you believe that no other procedure should be considered except electrocoagulation and I think he is better depicted by quoting some of the statements he makes about the horrors of surgical tonsillectomies. The following paragraphs are taken from an extract of an article written by Dr. John J. Sullivan, Jr., of Scranton, Penn. (*Pennsylvania Medical Journal*, July 1933) in which he quotes from an article written by John Henry Millstone, M.D. of Chicago, and apparently Dr. Millstone writes the following paragraphs about the shortcomings of surgical tonsillectomies:

Electrocoagulation of the Tonsils

John J. Sullivan, Jr.

1 Complications The various complications encountered in surgical removal of the tonsils are practically nil in coagulation such as primary hemorrhages, aspirating pneumonia from general anesthetics, lobar

and bronchopneumonia, lung abscess, gangrene of the lung, and sudden toxemia and pyemia, due to a sudden absorption of mycotic emboli from suddenly opening wide vessels and lymphatic spaces in the tonsillar bed.

2 Economic advantages The removal of the tonsils by coagulation is an office procedure, involving literally no shock, whether it is done by multiple or one-stage method. It removes the expense and fear of being confined to a hospital. As the patient is ambulant, there is no time lost from his vocation.

3 Loss of voice Singers and public speakers dread and fear removal of tonsils. There is always the apprehension of the possibility of injuring their voices and robbing them of their livelihood. If coagulation is carried out properly, there is no interference or mutilation of the throat.

4 Hemorrhage The operation itself is a bloodless procedure. There is never primary hemorrhage. Sometimes there may be a slight secondary hemorrhage at the time the residue is desquamating.

5 Pain It is interesting to listen to the stories of individuals who have had their tonsils removed by surgical enucleation. It sounds like the stories of barbarism and the torture of prehistoric days. It is true there is some discomfort and slight reaction from six to twelve hours following coagulation, but never the agonizing suffering that is associated with surgical removal. In surgical removal the so-called capsule is removed, laying bare the muscles of deglutition. On account of the mechanical trauma of the snare, Sluder, dissector, scissors, and tenaculæ, every swallow of the patient is associated with terrific and excruciating pain.

6 Loss of sleep All of us are familiar with the long, restless, irritable nights of those patients who have had their tonsils removed by surgery, differing from the comfort exhibited by patients following coagulation.

7 Nourishment It is often from two to four weeks before a patient is able to partake of food following surgical removal. The loss of weight and cachexia are sometimes severe. Following coagulation, patients may immediately partake of soft diet and within three days return to their normal, regular meals.

The man who wrote this is the type of man who is selling the public, throwing electrocoagulation into disrepute, and killing whatever virtue it may have in

for them to fold up their tents and pass out quietly. So it has been many moons since you or I read an article advocating the use of x-ray or radium for the removal of tonsils.

Now in this period of depression, those who have positions and who have need to have their tonsils removed, but who cannot stay away from the office long enough to have them taken out in the orthodox manner, are told rather definitely by a well-meaning friend that it is not necessary for them to lose any time from their work to have their tonsils removed. All that is necessary for such a person is to find a general practitioner or some specialist who has been visited by a salesman from one of the many electric companies putting out high-frequency machines, this doctor will take out his tonsils in from one to fifteen visits to his office, and hence, it will not be necessary for the patient to stay away from work, and the fee will be commensurate with his means. He may run the risk of having a severe hemorrhage on anywhere from the fifth to the fifteenth day, he may have an acute attack of tonsillitis superimposed upon his already sore throat, and to help things along, a peritonsillar abscess may visit him about the third or fourth day following his first treatment, but the sad part of it is that, with these few complications, he still will not have his tonsils thoroughly removed.

I believe that many of us will agree that much of the present day enthusiasm for the electrocoagulation of tonsils has been brought about by the high pressure salesmanship of the companies selling high-frequency machines. They have invaded the highways and byways and have sold machines to men who have never before had a piece of electrical apparatus in their office. With their singing of "so much per visit" and "the price of the machine within the limits of all of us," they have foisted upon the public a great number of poorly trained electrotherapists.

Now in summing up the literature on this subject, we find that the men using electrocoagulation may be divided into three classes: first, those who have used electrotherapy for a number of years in some form or other and who have become well-qualified and expert in the use of

their apparatus, and who do not hesitate to say that anyone unfamiliar or untrained in surgical tonsillectomy should never attempt electrocoagulation of tonsils. Many of these men make the statement that it requires much skill and training to become expert with a high-frequency current. They also say that it is almost impossible to remove all of the tonsil tissue, that there are bound to be some fragments left at the upper pole and behind the anterior pillars, and that you must be very careful not to leave particles of tonsils buried under layers of epithelial tissue. They acknowledge, too, that you do get infection in the remaining stumps, that pharyngeal abscesses, tonsillitis during the process of electrocoagulation, destruction of pillars, edema of the uvula and pillars, cellulitis of the neck, edema of the larynx, post-operative hemorrhage, and severe post-operative hemorrhage, even resulting in death, may occur. The writer knows of one case of such a severe hemorrhage.

The second class of men, it seems to me, may be described as those younger and enthusiastic and fairly well-trained men who have taken up electrocoagulation very earnestly and are trying to make it fill a place for the cases which they deem unsuited for surgical tonsillectomy. These men tell us that it is not the operation of choice, that if there is no contraindication to surgical tonsillectomy, surgical tonsillectomy should be the procedure. However, they say that electrocoagulation, because of the absence of possibility of severe secondary hemorrhage is the operation of choice for cases of hemophilia requiring a tonsillectomy. I have never seen or heard of a hemophiliac who has had his tonsils removed by electrocoagulation, but I feel that the possibility of secondary hemorrhage in a hemophiliac is just as great from electrocoagulation as it would be from surgical tonsillectomy. Personally, I would much prefer to handle a case of secondary hemorrhage in a hemophiliac who had had his tonsils removed in the orthodox manner than one who had electrocoagulation. Those of us who have found it necessary to stop hemorrhages a week following surgical tonsillectomy know what a difficult thing it is sometimes, when you have an indurated, granulating surface. In electrocoagulation, you have, in addition to the induration

-than go for the remaining treatments. All to whom I have spoken have had pain and bleeding and one of my own patients, whom I sent to a confrere of mine for electrocoagulation, was in the hospital twice with hemorrhage and he got so disgusted with me for referring him and letting him in for coagulation that I have not seen him or his family since.

In a state the size of New York, where there are good surgeons of all types available, electrocoagulation as such for the removal of tonsils should play a very small part, and it should be used in the procedure for which it is best suited—that is, as a general cautery for the removal of lymphoid tissue at the base of the tongue, on the pharynx, on the nasal pharynx, or at the base of the tonsil, and for the shrinking of turbinates, and so

forth. If this were a community where careful surgeons were not available and where some of the things happen which they tell us *do* happen after a tonsillectomy in the smaller communities, there is no denying the fact that the patient might be better off with an incomplete electrocoagulation performed.

I do not want to be intolerant of any form of treatment or procedure which will supplant any of the older and more tried methods or which will offer a means of relief to anyone under my care, but I truly say that I cannot recommend electrocoagulation as the method of choice except in the most extreme and unusual circumstances, and then only when the patient has a full knowledge of what he is getting and what he may expect.

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THE DOCTOR'S REPLY

To the frequent query, "Doctor, can you cure me?" suffering, hoping, trusting humanity through the ages has received many answers.

Dr Charlatan replies "Why, certainly! I have had unusual experience in treating your type of case and great success if I do say so myself. If you are not better in six months you can have your money back."

Dr Cocksure "Why, Madame, this is the type of case I specialize in. I have probably seen a dozen cases like yours in the last month. Just leave it to me and I can assure you that you will shortly be a well woman."

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fice every month over an indefinite period of time. Remember I make no promises, only we shall arrest your trouble where it is."

Dr Foolishly Honest "Why, Mrs Doe, I have seen very few patients suffering from your complaint. It is true I have read about it and studied it a bit but I have not seen enough cases like yours yet to be very sure what to say to you. I shall be very glad to try a prescription on you I recently found in a Western medical journal, but you must remember it is all an experiment."

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—*Virginia Medical Monthly*

the eyes of the conservative, conscientious laryngologist

Having outlined these different types of men to you, I feel that you should know that there is considerable difference of opinion among the men in the different classes, particularly in the first and second, as to the methods to be used in electrocoagulation. Some will use desiccation alone, others will use coagulation along with desiccation, others, coagulation alone. Some say remove all the tonsil tissue, some say it is not necessary to remove all the tonsil tissue, but to stop when your patient's symptoms disappear. Others believe that a diathermo-cryptotomy is all that is needed, coagulating deep into the crypts of the tonsil and hence killing the bacteria and forming a sort of autogenous vaccine from the bacteria present in the crypts at the time of the electrocoagulation. Some advise never to get into the crypts of the tonsil because this procedure is likely to cause tonsillitis or a peritonsillar abscess. So you see all is not harmony among the electrocoagulationists, even they cannot decide upon a method which is satisfactory to all. So how can the novice know which way to turn when starting on his road to glory among the electrocoagulationists? The one way he has of learning is the method of trial and error with a standard high-frequency machine.

Let us now compare the two procedures, taking first the surgical tonsillectomy in the ordinary case. To the well-trained and conscientious otolaryngologist, tonsillectomy is truly a surgical procedure. It may be a simple one in some cases and a very difficult one in other cases. The operation does not consist in the use of the Sluder, or any modification thereof, or of the La Force, or any of the new-fangled instruments which are sold to the occasional tonsillectomist, but it means a careful dissection and snare, and more often, just clean dissection without the use of the snare. It is a fallacy to believe that the properly trained and experienced otolaryngologist is always stopping hemorrhages and running into complications, and that he does not have a large percentage of very excellent surgical results. In the modern hospital, the up-to-date tonsillectomy is a fifteen to

thirty minute operation including the time necessary to effect an efficient painless anesthetic, a complete enucleation with a minimum of trauma, a wholesome respect for tissue, and an orderly surgical technic of hemostasis. From the patient's standpoint, he will generally leave the operating room free from pain, but as the anesthetic wears off, there will be some discomfort, pain, and restlessness which can be controlled, he usually sleeps the best part of the night with an opiate and awakens the next morning to be helped by a warm throat irrigation, aspirin, anesthesin, and in eighty per cent of the cases, has orange juice, cereal, and coffee. With the general run of cases, this procedure is the rule and after a few days of discomfort, he is finished. Of course, the question of postoperative hemorrhage in surgical tonsillectomy arises. I think I am safe in saying that about four per cent of our local tonsillectomies have postoperative bleeding which generally is easily controlled either by plugging the fossa, re-injecting the area with novocain, checking up on the bleeding point, and either trying or putting in a suture. Bleeding in local cases usually occurs within six to twelve hours. Bleeding in electrocoagulation takes place before the fifteenth day and then the induration and sloughing make it practically impossible to locate the bleeding point and any attempt to put in a suture is followed by more hemorrhage, making it almost impossible to control the hemorrhage except by pressure.

Contrast the description I have given above with the person who is having his tonsils removed by electrocoagulation. He must make from fifteen to twenty visits to the coagulator at weekly intervals and leave with a sore throat which lasts twenty-four to forty-eight hours with intermittent bleeding and possible pain in his ear. The mental effect on some of the thinking, intelligent people who have let themselves in for a course of this treatment is terrific. One of them told me that he would think about it from one week to the next, and before going to the doctor would stop at the drug store for a sedative of some sort. Another became so disgusted that he had his tonsils removed by surgery rather

can go for the remaining treatments. All whom I have spoken have had pain and bleeding and one of my own patients, whom I sent to a confrere of mine for electrocoagulation, was in the hospital twice with hemorrhage and he got so disgusted with me for referring him and letting him in for coagulation that I have not seen him or his family since.

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—*Virginia Medical Monthly*

CHRONIC DIFFUSE GLOMERULAR NEPHRITIS

Diagnosis, Symptoms, and Treatment

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Past and Present Methods of Treatment

Chronic nephritis has been regarded as a disease whose signs and symptoms depend upon the pathology of the kidney. The treatment of this condition has consequently been carried out with the dominant idea of sparing the kidney as epitomized in the German expression "Schonungstherapie." The method consisted principally in rest, a low protein (lacto-vegetarian) diet, and residence in a warm dry climate. These therapeutic measures accomplished little, but were the best available, they are still used widely today though the study and experience of the past twenty-five years has shown that there are other means of treatment which, although not curative, will yield a longer, more useful, and more enjoyable life than the earlier regime of inactivity and protein starvation. Permanent bed rest is satisfactory for a few months in acute nephritis, but carried on indefinitely for chronic nephritis will result in disuse atrophy of the muscular and glandular tissues, a low protein diet lessens the excretory demands upon the kidney but results, *first*, in tissue deterioration including the kidney itself, *second* in the early development of anemia, and *third*, in a susceptibility to infectious diseases, notably tuberculosis, residence in warm dry climates uproots the patient—children cannot attend school, men cannot follow their occupations, and women leave a struggling household behind them, furthermore, hotel or boarding house life at its best is associated with discomforts and inconveniences which favor colds and infections that can be much more readily avoided by suitable clothing and shelter

in a wintry climate with routine family fireside care

Clinical Conception

The usual concept of nephritis is that it is a disease classified and fully described according to the histological picture of the kidneys. This is the pathologist's point of view and has been accepted in its entirety by physicians in a rather haphazard fashion. However, today the doctor can make diagnoses that are deemed to the pathologist. Functional pathology, the disturbances of physiological processes, has come to assume equal importance to anatomical pathology. Diagnoses such as uremia, hypertension, acidosis, can be confidently made by the physician and only hesitatingly, if at all, by the pathologist. Reasoning along these lines, we have for a number of years been making a clinical diagnosis of Bright's disease under six headings or phases, in the belief that each one of these, to a certain extent at least, exists and progresses regardless of the others and that the most effective treatment can be achieved if they are accorded individual attention and an unbending formula for the handling of chronic nephritis is discarded. The six aspects of chronic nephritis which would be appraised monthly by month and according to which treatment should be regulated, are

- 1 Kidney lesion (albuminuria—acutely the nephritis)
- 2 Edema
- 3 Hypertension
- 4 Impairment of renal function
- 5 Anemia
- 6 Uremia

Read at the Lake Keuka Medical Society Meeting, July 17, 1936

Treatment of Nephritis

The absorption into the circulation of the toxins of the hemolytic streptococcus, usually growing in the tonsil, the pharynx or the respiratory tract, are believed to be responsible for this condition in the kidneys. This was originally postulated by Lohlein in 1907 and has been verified by many investigators since that time. The condition may begin as a fulminating acute diffuse glomerular nephritis or in a cryptic fashion, so that it is discovered by chance on routine or on life insurance examination. The process may go on to complete healing, remain latent or progress to become a fibrosed, secondary contracted kidney, at any time with a lighting up of the infection there may be an acute exacerbation of the nephritis.

The obvious treatment is to clean out the foci of infection. Such operations as tonsillectomy or sinus drainage, can be carried out without damage to the nephritis, there may be an increase in the albuminuria or the edema for a few days but these soon subside and the condition returns to its preoperative state, removal of infectious foci will not improve an existing nephritis, this should be clearly understood by both physician and patient, eradication of the streptococcal infections will obviously lessen the chances of acute exacerbations of the nephritis and will, according to Longcope and his collaborators, retard the progress of slowly advancing lesions.

A low protein diet, the lacto-vegetarian diet of the last generation, it is now realized will not aid the kidney but may even favor cellular degeneration not only in the renal cells but throughout the body. A high protein diet will not damage the kidney but will tend to preserve the integrity of the whole organism. Some of the peoples of India who are strict vegetarians are prone to suffer with nephritis. The minimal quantity of protein in the diet regarded as satisfactory according to Peters, is seventy-five grams plus the quantity of albumin lost in the urine, larger amounts have been advocated but are not necessary.

Exposure to cold and wet, contact with persons who are suffering with "colds" or fever, excessive fatigue, in fact any and all causes which predispose to infections and, consequently, acute exacerbations

of the nephritis should be avoided. Light woolen underwear, when the modern trend can be overcome, is one of the best prophylactic measures.

The presence of albuminuria in itself is no contraindication to attendance at school or college, engaging in gainful occupation or following other duties. The possible exceptions are, for the reasons given in the preceding paragraph, the indulgence in competitive sports, outdoor occupations, and physical effort resulting in marked fatigue. Alcohol should be avoided, not because it is harmful in itself, but because through numbing of the sensibilities, it often is responsible for undue exposure that is instrumental in lighting up infections.

Treatment of Edema

The edema of diffuse glomerular nephritis is of three varieties.

1 The toxins of the hemolytic streptococcus, in acute glomerular nephritis or in acute exacerbations of chronic diffuse glomerular nephritis, damage the capillaries and increase their permeability to the contained blood.

2 Cardiac insufficiency which, as is generally appreciated, may result from prolonged hypertension in chronic diffuse glomerular nephritis, will bring about a type of edema similar to that produced by the failing heart under any circumstances.

3 A lowering of the blood proteins especially the albumin, is accompanied by a diminished osmotic tension in the blood and an escape of fluid into the tissues from the circulation. This is a characteristic symptom in the so-called nephroses, it may also occur in the course of chronic diffuse glomerular nephritis when it is regarded as a nephrotic component of the nephritis.

The treatment of this last form of edema only, is discussed here. It is obvious that the edema of acute nephritis and of cardiac insufficiency in many respects call for a different form of therapy.

Nephrotic edema, as first shown by Albert Epstein, is due to a lessening of the albumin content of the blood. This, because of the consequent lowered osmotic tension, allows the fluid to flow in excess through the vascular walls and accumulate in the tissues causing edema. According to Van Slyke and his associates, the critical level of blood changes which results in the edema is a specific

gravity of 1.023, a total protein content of five per cent, and an albumin concentration of three per cent. One of the main reasons for the loss of blood protein is the albuminuria, whether or not this is the sole explanation of this whole disturbance, remains to be determined. Page has shown that denervation of the kidney will check proteinuria without interfering with the function of the kidney. Whether or not this surgical procedure is feasible in these cases is a matter for future experimentation and study.

The most obvious remedy is the administration of a high protein diet. This certainly does no harm, it appears to check or ease the condition in many cases, though the general experience does not bear out Epstein's contention that it is a cure in most instances. The amounts of protein advocated for daily consumption range from seventy-five to well above 200 grams. The formula of Peters that seventy-five grams plus the amount lost in the urine, is a good one.

Salt restriction is as valuable today as it was when first reported by Widal and Javal, and by Strauss. It has been established that the sodium and not the chloride part of NaCl favors the production of edema. This makes it clear why potassium chloride, about three grams a day, can be advantageously substituted for the sodium chloride, it also shows why most of the "salt substitutes" are not worth considering because they are a combination of sodium with other acids (for instance sodium malate) and since they contain sodium have no advantage over sodium chloride.

Thyroid administration has been widely advocated. It was first suggested because in nephrotic edema the basal metabolism is low. It is an open question whether the basal metabolism is actually lowered or only seemingly so. According to the height and weight standards, it is less than normal, but it is obvious that the edema—that is, fluid accumulation which does not consume oxygen—may give the basal metabolism false values. From the practical point of view, these patients tolerate thyroid medication in large amounts while their plasma cholesterol is high, when it approaches normal the remedy should be discontinued. In one

case of nephrosis as much as ten grams of the thyroid extract per pound of patient were used daily and only produced symptoms of hyperthyroidism when there was a drop in the plasma cholesterol. The effect of thyroid on the edema is not always satisfactory though the same may be said of other forms of treatment.

Diuretics must be managed with great care. Water and sodium chloride, the blandest and also among the most efficacious diuretics, are already present in excess in the tissues of the patient and consequently their administration must be restricted and not increased. Urea in ten gram doses three times a day, is valuable. It should be given in cold water, flavored with fruit juices, after meals, it may be administered with impunity unless the blood urea is at a high level—forty mg. or more of urea nitrogen per 100 c.c. of blood. High protein feeding results in an increase of blood urea which doubtlessly has a diuretic influence.

Salts which bring about an acidosis, especially ammonium chloride and ammonium nitrate, have been advocated as diuretics for use alone or in conjunction with other drugs especially salyrgan and mercupurin. These salts as a rule do not accomplish more than salyrgan or mercupurin alone and their use may be dispensed with, except when diuresis cannot be produced without their aid.

The manner in which digitalis affects the urinary flow has always been a controversial matter. Whenever there is the least sign of cardiac dilatation, whether there appears to be cardiac failure or not, it is worth while to resort to digitalis. It often produces diuresis, whether it does so by relieving renal congestion or by direct action on the kidney, or both, is an open question. The purine products and mercurials are more effective when combined with digitalis. Digitalis is worth a trial in most cases.

The purine derivatives have enjoyed a wider use as diuretics than most of the others. They have not proved effective except when cardiac failure exists. They should be used intermittently, every third or fourth day, like most of the diuretics. Their action is enhanced by digitalis, rest, and other measures which stimulate the circulation. Caffeine or one of the caf-

eine salts in three to ten grain doses, Theobromine (theobromine sodium salicylate or "diuretin," 5 to 10 grains, three or four times a day), Theophylline or "Theocin," three to five grains three times a day, are the ones most commonly used. Theophylline is the most effective, it is prone to cause nausea and vomiting and, as mentioned above, should be used every third or fourth day.

Mercury has long been recognized as an efficient diuretic but it is well-known that calomel and bichloride of mercury may damage the kidney severely even in small doses. A mercurial compound for intravenous use, "novarsuroil," was introduced a few years ago, this proved to be treacherous since it often entailed severe reactions. Since then "salyrgan" and, more recently, "mercupurin," have been put on the market. Why the mercury in these preparations is not as harmful as in others is not clear, but clinical observations bear witness to the fact that they are not. I have one patient suffering with permanent cardiac insufficiency, who during the past four years, has received fully 300 injections of these drugs without any sign of mercurialism or harm to the kidneys. Salyrgan or mercupurin are given in two c.c. doses intravenously or intramuscularly, not more frequently than twice a week. There is a distinct hazard of necrosis with subcutaneous injection so that the intravenous therapy should be carried out under expert guidance only. The mercupurin is the better diuretic as a rule and is less irritating to the subcutaneous tissues. The question of the advisability of using these drugs in the presence of chronic diffuse glomerular nephritis constantly arises. Until there is a greater experience with these mercurials they should not be resorted to under these conditions unless there is the necessity for saving life from the uncontrolled accumulation of fluid, as sometimes occurs beneath the skin and in the body cavities. In some of these cases these mercurials have proved to be good diuretics and apparently have not injured the kidney.

There are some curious facts about these mercurial diuretics. Mercupurin contains theophylline, because of this it is presumed that its effect upon the kidneys

is enhanced and the irritation of the subcutaneous tissues is diminished. Recently the mercupurin without the theophylline has been put upon the market as a suppository called "mercurin." Christian in America, and Parkinson and Thomson in England have reported favorable results with these suppositories. I have used them and found them to augment the flow of urine though less than the intravenous or intramuscular injections. The reason for omitting the theophylline in the suppositories is that they do not produce diuresis when they contain this material. This is an unexplained fact that for the present we are accepting on the statement of the pharmaceutical house which is responsible for the mercurin and mercupurin. By the same source, I have been informed that mercupurin when given by mouth has no effect on the urinary elimination.

The accumulation of fluid may be so great as to require tapping of the chest or abdomen for relief of the mechanical pressure on the lungs, the heart, and the circulation. Under these circumstances, thoracentesis or paracentesis should be done. The drawback of such removal of fluid is that a certain and considerable amount of protein is taken away at the same time and protein loss in this disease is something we wish to avoid if possible, and also the tapping operation in chronic nephritis, especially of the abdomen, is often followed by infection.

Treatment of Hypertension

Hypertension is a common accompaniment of chronic diffuse glomerular nephritis. It may exist either in the absence or in the presence of renal insufficiency. The arterial tension in this disease is prone to acute exacerbations which occur for no apparent reason and which may be the cause of death.

The elevated blood pressure produces the same secondary effects as in essential hypertension, that is, the heart is most likely to be affected with coronary disease and cardiac failure and next in frequency, cerebral arteriosclerosis with its palsies and "hypertensive encephalopathy" becomes a factor in the situation.

The detailed treatment of hypertension will have to be omitted here since it

would occupy more time than we are entitled to give it in this paper. There are only a few points in regard to it that might be stressed. Intermittent, but not complete, rest and mental relaxation accomplish more for this disorder than any other form of treatment, the hypertensive patient should be examined frequently to gain his confidence and to meet his needs, especially incipient cardiac failure, which usually responds very well to treatment, diet should be directed toward relief from overweight, that is, low carbohydrates and fats in the obese, and proteins whether as red meat or white, eggs or fish, may be given with impunity, they do not elevate the blood pressure. Frequent small venesections when the red cell count is above five million, are of distinct value.

Treatment of Impaired Renal Function

Symptoms due to renal insufficiency do not appear until the urea nitrogen in the blood rises to a level of at least sixty mg per hundred c c. Consequently, the proteins in the diet need not be curtailed until that figure is reached. The restriction of proteins will favor the development of an inevitable anemia and malnutrition, and should, as previously discussed, be delayed as long as possible.

The early stages of renal insufficiency are signaled by an inability to concentrate the urine as shown by a lowering and fixation of the specific gravity. When this occurs there is an increased output of urine especially at night—the well-known nocturnal polyuria. The rise in urine volume will for a long time serve to maintain an adequate elimination of urinary solids. The main point in the situation is that under no circumstances should the fluid intake be curtailed but rather that the patient should be encouraged to satisfy his thirst so as to maintain the "compensatory polyuria."

Sometimes excessive thirst and polyuria are relieved if the salt in the diet is drastically restricted. Edema is a complicating factor early in the course of a chronic diffuse glomerular nephritis and usually, before renal insufficiency and compensatory polyuria become a part of the clinical picture, so that as a rule it

is not necessary to consider renal insufficiency and edema at the same time.

Treatment of Malnutrition and Anemia

Malnutrition and anemia so severe as to constitute a cachexia, occur in every case of chronic nephritis when a considerable amount of the kidney tissue has been destroyed. Animal experimentation shows that this comes about when three-quarters of the renal parenchyma more or less is removed. The fact that this does take place is not disputed, but the reason for it is not clear. From the therapeutic point of view, it is wise to anticipate the occurrence of the anemia and for this reason to insist on a rather high protein diet, thus preventing the development of the anemia as far as possible. The patient should be examined frequently, and when the hemoglobin and red cells begin to fall off, liver and iron medication will help the situation somewhat though they will not do away with it completely. Arsenic because of its possible toxic effect on the kidney, has not been tried extensively. When the anemia becomes marked and a regeneration of the hemoglobin and red cells cannot be brought about by the usual means, it is in order to consider blood transfusions.

Transfusions of blood may be given to cases of chronic nephritis with perfect impunity if the preoperative matching of blood is carefully carried out. Blood transfusions will not produce uremic symptoms, will not increase the blood pressure, will not damage the kidney, and will not result in reactions any more frequently than in persons not affected by the nephritis. The transfusions of blood will remedy the anemia and thus improve nutrition and restore physical vigor, beyond this, nothing should be expected from the transfusions. They will not improve renal function, diminish symptoms such as headache, or relieve the edema.

Transfusions of blood should be used before terminal renal insufficiency makes its appearance, so that the patient will receive the full benefit from them. When they are carried out early in the course of the nephritis their effect will be a lasting one and the red blood cell count be maintained at a more or less normal level.

or a long time. When they are carried at late in the disease, usually the anemia rapidly progressive in spite of the transfusions.

In the cases of nephritis associated with anemia, it usually requires a considerable amount of blood to combat the anemia. 500 to 1000 c.c. of blood may be given at one transfusion. The first, and sometimes even the second transfusion may fail to evoke any response as far as the red blood cell count is concerned. Why this is so, is not clear. The second or third transfusion as a rule brings about a rise in the red cell count and it may require even a fourth before the red cell count and hemoglobin are restored to an approximately normal level.

With the former treatment of nephritis which called for a lacto-vegetarian diet from the beginning, anemia and malnutrition proceeded much more rapidly and would frequently outstrip the development of impairment of kidney function and retention uremia. These patients often died as a result of the under-feeding before the uremia would overtake them. When these cases are encountered, their life may be very much prolonged by the judicious use of blood transfusions. In any event at the present time one of the causes of death in chronic nephritis, namely that from malnutrition and anemia, can be set aside by the transfusion of blood.

Treatment of Uremia

The term "uremia" as applied to chronic diffuse glomerular nephritis really implies three different conditions: *first*, the manifestations due to the effect of streptococcus toxins on the central nervous system which accompany acute exacerbations of a chronic nephritis, *second*, the manifestations of hypersensitive encephalopathy, *third*, the effect of renal insufficiency, that is, the retention of urinary excretory products within the body. It is often very difficult to separate these three forms of irritation of the central nervous system for they may occur in combination. It is only the uremia of renal insufficiency often spoken of as retention uremia or asthenic uremia (for the fact that convulsions are not an outstanding symptom) which will be taken up here.

Retention uremia is usually the result of a lowering of the urinary volume, that is, the compensatory polyuria which has enabled the patient to carry on in spite of the diminished amount of kidney tissue. As a routine procedure, it is indicated to administer large amounts of fluid so that the kidneys will have ample material from which to form urine. The skin should not be allowed to become dry. Three to four liters of fluid a day should be given. When there is vomiting, this should be administered as ten per cent glucose in normal saline solution.

The symptoms such as headache, nausea, and vomiting are best controlled by fairly large doses of chloral, in most cases this can be given advantageously by rectum, thirty to sixty grains of chloral at a time in a small amount of starch paste is absorbed readily and is usually effective, when given by mouth it may be administered in smaller doses—ten to twenty grains repeated at intervals if needed. Chloral apparently does not depress the circulation and does not cause any lasting depression or "fogginess" as the barbiturates or morphine products are prone to do. It has an extremely disagreeable taste which nobody thus far has succeeded in disguising, so that the rectal route of administration is often advisable.

When possible, the blood determinations of calcium and sodium chloride at frequent intervals are of help and furnish guides as to when to give and withhold salt and when to administer calcium by mouth or vein. When these blood determinations are not available it is advisable to use calcium liberally and be sure the patient is receiving at least some sodium chloride. The twitchings so characteristic of retention uremia are supposed to be due to a deficiency of calcium in the circulation, however, they are not necessarily relieved by the calcium medication.

The diet for these cases should always be one as low as possible in protein, and high in fat and carbohydrate content. In this connection it is worth while remembering that sugar, corn starch, and tapioca are three foods made up of carbohydrates without any admixture of protein and they, together with fruits and fruit juices, constitute the ideal diet for retention uremia. Alcohol is digested like the car-

bohydrates and may well be used especially in the shape of sherry or port for nutrition and for relief of the monotony of a proteim-free diet

Summary

The treatment of chronic nephritis today recognizes the fact that this disease of the kidneys is made up of several elements which demand individual attention. These are the lesion of the kidney itself, that is, the nephritis, edema, hypertension, impairment of renal function, malnutrition and anemia, uremia. These phases of nephritis are not only treated when they arrive, but the administration of drugs and diet should attempt to anticipate their appearance. All treatment, especially dietetic therapy, is aimed to

maintain the patient in good physical condition and to make no attempt to deny the body necessary nutrition because of efforts at shielding the kidney which are now recognized as being of no value, stress is put upon the idea of feeding a sufficient quantity of foods with a high protein content, especially meats, which do not injure the kidney, alleviate edema, do not cause a rise in blood pressure, prevent malnutrition and anemia, and need only be curtailed when a considerable degree of impairment of renal function makes its appearance. In other words, a high protein diet can be used for the treatment of every phase of chronic diffuse glomerular nephritis except when retention uremia is threatening.

889 LEXINGTON AVE

PERSUASIVE APPROACH WITH THE INFECTIOUS SYPHILIS CARRIER

According to Louise Brown Ingraham, Philadelphia (*Journal A M A*, Dec 12, 1936), the sterilization of the infectious syphilis carrier is a problem that proceeds from the known syphilitic person to the identification, examination and treatment of the unknown.

Compulsion and persuasion are two mediums of accomplishment. These may be applied separately or integrated. Intrusion on the privacy of the patient and the use of his confidential disclosures are important considerations in carrying out the volitional or persuasive approach. The voluntary approach implies freedom of initiative on the part of the follow-up personnel in developing a personalization of appeal. It involves experimentation in technics of persuasion. The confidence of the patient and his voluntary response are entirely dependent on the development and application of these skills.

The voluntary approach as interpreted in this study is not a feeble touch and go process. Rather is it a tender but direct cultivation of the interest of the patient sometimes through friendliness, sometimes through sympathy, often by a generous performance of some personal service. There must be a quick intuitiveness to grasp opportunities, to sense resistance or change in attitude, with a readiness to advance, to retreat, to withdraw. The attention to the patient's interests cannot be transitory, a caring today, tomorrow forgetting. It must result in a constant watchful stimulation

during the entire interval required for case finding. The subject must be kept alive or the patient will forget and cease to bother.

The initial interview is the foundation of all hopes for success with the syphilitic individual. The intelligent interpretation of syphilis may even mean the beginning of effective person to person propaganda for the control of this disease. Effort should be constantly directed toward teaching the patient the manner in which he may seek out his own contacts and persuade them to report for medical examination. The question of whom is to take the initiative in getting the contact in for examination is decided by agreement between the social worker and the patient after the name of the contact has been secured.

The ultimate finding of the whereabouts of the contact is the outcome of the usual methods of searching a neighborhood. To conceal with diplomacy the name of the former is essential and it lessens the possibility of mistaken identity. To draw on his sympathy by suggesting the guilt and humiliation he would feel if he were held responsible for infecting some one is to stir his imagination and save the day. Reluctance to be identified implies the apologetic attitude of the unknown partner, while establishing the knowledge of a sense of responsibility on his part. It changes the emphasis from accusation to communication. The contact senses protection, and confidence matures.

BISMUTH BY MOUTH IN THE TREATMENT OF SYPHILIS

Preliminary Experimental Study with Bismuth Chloride (Bismutrate) in Rabbit Syphilis

CHARLES ROBERT REIN, M D and MARION B SULZBERGER, M D, *New York City*
From the Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital,
Columbia University, Dr George M MacKee, Director, Service of Dr Fred Wise

Following the successful introduction of bismuth in the treatment of syphilis by Sazerac and Levaditi,¹ many attempts were made to administer the drug by the various possible routes. The results of these attempts may be summarized as follows

1 The intramuscular method has proved of practical and general usefulness because the bismuth which is readily absorbed from the intramuscular depots is relatively non-toxic.

2 The intravenous method, however, has fallen into disrepute because of the high toxicity of bismuth by this route

3 The inunction method has also been discarded owing to the inadequate absorption of the drug from the skin.

4 The oral method has been abandoned since the early investigations of Levaditi,² and those of Fournier and Guenot,³ demonstrated its complete inefficacy

However, there have been numerous reports in the literature of severe bismuth intoxication following the oral administration of bismuth salts when administered for example, as a contrast medium in x-ray diagnosis and in the treatment of gastrointestinal disorders. These reports suggest that an occasional extensive absorption of bismuth has taken place from the gastrointestinal tract

Serefis⁴ studied this phenomenon and found that nearly all bismuth salts are converted into bismuth chloride by hydrochloric acid, and that this bismuth chloride formation also takes place in the presence of any other acid, or in the presence of chlorides if lactic acid or lactates are likewise present. Serefis believes that if there is an inflammatory injury of the stomach wall, the acid solution of the bismuth chloride may there be ab-

sorbed. Under normal conditions, however, the bismuth chloride is precipitated as the insoluble bismuth oxychloride in its passage into the alkaline intestinal fluid, and is not absorbed. Under certain conditions, however, the bismuth chloride may combine with polyvalent alcohols and organic acids, or salts of organic acids, in the stomach itself, thus forming complex bismuth compounds. These complex bismuth salts are not immediately precipitated in an alkaline medium and can therefore be absorbed from the intestine

Accordingly, Serefis attempted to evolve a preparation of bismuth chloride which would reach the intestine in an absorbable state. From *in vitro* experiments, he concluded that a stable bismuth compound could be formed by the addition of a polyvalent alcohol (glycerin) and an organic acid (sodium citrate) to the bismuth chloride. To this he added liver extract, because Levaditi and Nicolaï⁵ had long previously demonstrated that organoextracts greatly increase the spirocheticidal power of complex bismuth compounds. This complex bismuth solution, when neutralized with sodium hydroxide, could be ingested in large amounts without producing any irritation of the gastric mucosa. In addition it was not precipitated in an acid, neutral or alkaline medium, nor by dilution

Mulzer and Serefis⁶ report that they have employed such a preparation of stabilized and absorbable bismuth chloride in both rabbit and human syphilis with favorable therapeutic results. They also found that a considerable amount of bismuth was continually excreted in the urine of those individuals who received

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1936

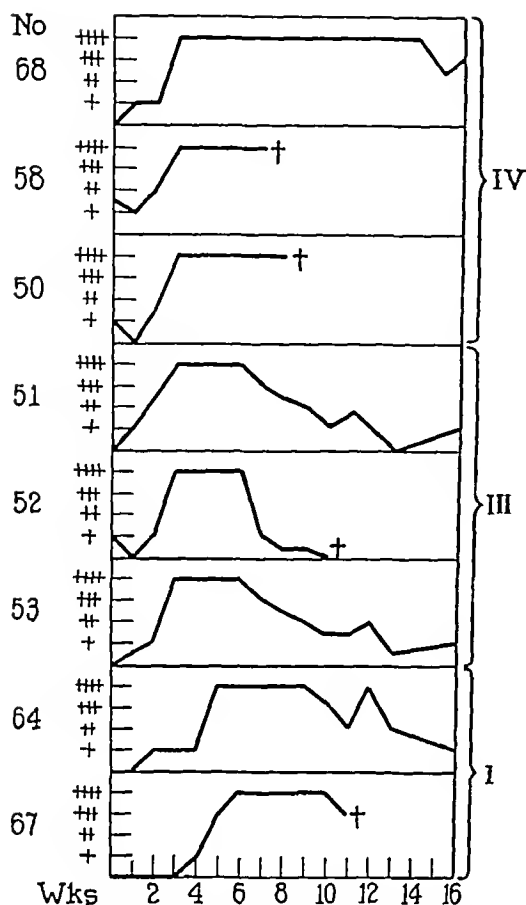


CHART II—KLINE TEST RESULTS IN RABBITS RECEIVING PROPHYLACTIC PLUS PRIMARY ABORTIVE TREATMENT⁸

Group II—Prophylaxis plus primary abortion. (Bismutrate given for three days prior to inoculation and for four days immediately after inoculation)

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this preparation by mouth, thus furnishing additional proof that the bismuth was actually being absorbed from the gastrointestinal tract

These studies, in addition to the recent investigations of Kolmer,⁷ led us⁸ to re-investigate the efficacy of the oral administration of bismuth in experimental syphilis. It seems that oral administration of bismuth in the treatment of syphilis fell into disrepute for two definite reasons. *First*, because there has been no preparation of bismuth which could be adequately and consistently absorbed from the gastrointestinal tract, *second*, the oral administration of bismuth or any other

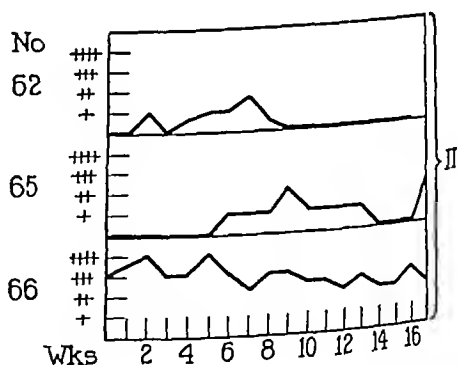
CHART I—KLINE TEST RESULTS IN A POSITIVE CONTROL GROUP AND IN RABBITS RECEIVING BISMUTRATE AT VARIOUS TIMES⁸

Group IV—Positive controls (No bismutrate administered)

Group III—Secondary abortion. (Bismutrate commenced forty-two days after inoculation, twelve days after appearance of chancre)

Group I—Prophylaxis plus treatment. (Bismutrate before inoculation and again beginning forty-two days after inoculation)

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antisyphilitic remedy all too frequently leads to under-treatment. Even though patients are told specifically that this type of medication will not suffice, they are apt to depend on oral medication, especially when they are clinically free of symptoms

For this last reason we do not feel that it is advisable to administer antisyphilitic remedies by mouth as a routine procedure in all stages of syphilis, this is especially true because the use of intravenous and intramuscular injections of the modern drugs is not only increasingly effective, but can, today, be carried out with relative ease in the majority of cases. More-

over, it is sociologically contraindicated to advise oral medication in patients with early syphilis, because by this method the resolution of the lesions is, generally, much slower and the control of the infectiousness of the disease would be inadequate. There are, however, definite indications for oral therapy. Kolmer,⁷ in his recent article, clearly outlines the following indications for the oral administration of bismuth, with which we are in general agreement:

1 In the treatment of acquired or congenital syphilis between courses of arsphenamine or bismuth injections. This affords excellent means of continuing treatment during the intermissions between the courses of injections, or when the patient is unable to receive injections for a long period of time.

2 In the treatment of syphilis of long standing, especially where cardiovascular syphilis exists. This would tend to prepare the patient for other forms of medication and thus prevent Herxheimer reactions.

3 To be given in conjunction with injections of arsphenamine or neoarsphenamine in a so-called "combination" type of treatment.

4 To be given to those syphilitic patients who find it impossible to have medication by intunction or injection, either because of intolerance, or on account of some other reason.

It seems to us that in addition to these indications of Kolmer's, the oral administration of an absorbable bismuth may be of definite value in the "prophylaxis" of syphilis and thus was one of the points borne in mind in our present experiments.

The bismuth chloride preparation employed in our experiments was supplied in large tablets of light brownish color, each weighing five grams, and containing 200 mgs of metallic bismuth. These tablets were not easily soluble in water, but when crushed were brought into a uni-

form chalky aqueous suspension of agreeable taste, resembling that of licorice. This preparation (Bismutrate[†]) is said to contain the following constituents:

Complex Amino-Acid Bismuth salt of oxytricarballic acid (bismuth chloride combined with glycerin, sodium citrate and liver extract.)	67 14%
Sacch. alb	25 60%
Talcum	3 30%
Stearic acid	0 65%
Oleum anisi	0 01%
Succ. glycyrrh	3 30%

Employing this preparation, we carried out the following experiments.⁸ Fifteen adult male, grey chinchilla rabbits, weighing approximately 2500 grams each, were used. These were inoculated on March 21, 1935 with an established and proved virulent strain of *Treponema pallidum*. The inoculations were performed bilaterally, both in the scrotum and testes.

For the purposes of experiment, the animals were divided into four groups as follows:

Group I *Prophylaxis** Rabbits 64 and 67 received Bismutrate on each of three successive days immediately prior to inoculation.

Group II *Prophylaxis plus primary abortion** Rabbits 62, 65, and 66 each received Bismutrate on three successive days immediately prior to inoculation and on four days immediately after inoculation.

Group III *Secondary abortion* Rabbits 51, 52, and 53 received Bismutrate beginning 42 days after inoculation (12 days after the appearance of the primary lesion.) Treatments were given approximately three times weekly during a period of thirty-nine days (a total of 17 treatments per animal).

Group IV *Positive controls* Rabbits 50, 58, and 68 were inoculated but received no treatment.

[†] We are indebted to the Neo-Products Company for placing a large supply of this preparation at our disposal.

* In speaking of the prevention of venereal diseases, "prophylaxis" is the word usually employed to designate those procedures which are carried out *after* 'suspicious' contact, i.e. after infection may have taken place. Strictly speaking, it would seem that "prophylaxis" is not quite the correct term to apply to these procedures, for after infection has taken place, the disease is already present, although not manifested. We, therefore, in our present studies, distinguish between (1) *Prophylaxis* i.e., preventive measures employed *before* infection or before inoculation (2) *Primary abortion* i.e., measures employed during the primary incubation period, *after* infection or inoculation but *before* the appearance of any manifestation (3) *Secondary abortion* i.e. measures employed during the secondary incubation period after the appearance of the primary manifestations, but early enough to abort the course of the disease. (4) *Treatment* i.e. measures employed during any stage of the disease. In this classification, what is ordinarily called "prophylaxis" would be classed as *primary abortion*.

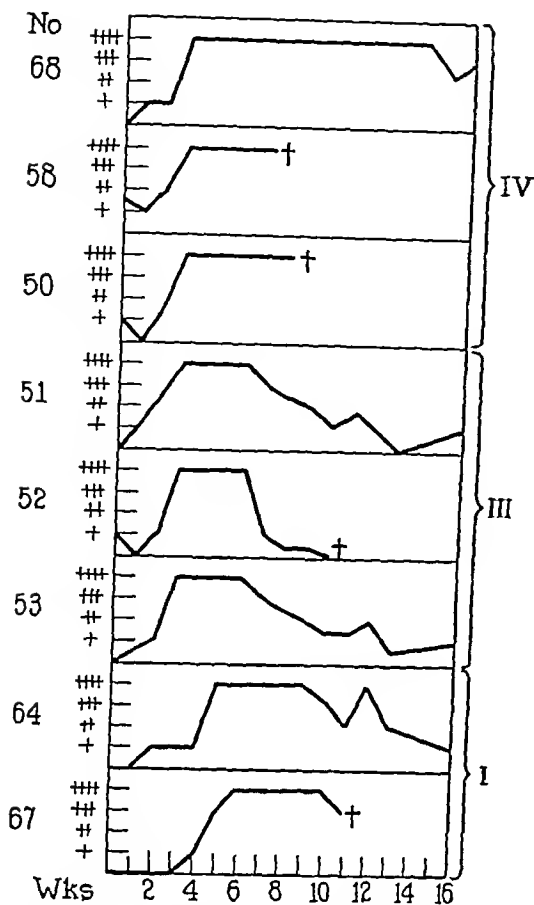


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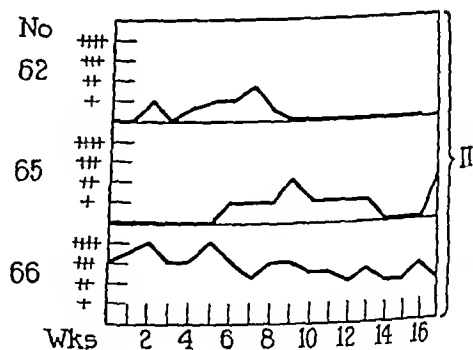
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Group IV *Positive controls* Rabbits 50, 58, and 68 were inoculated but received no treatment.

† We are indebted to the Neo-Products Company for placing a large supply of this preparation at our disposal.

* In speaking of the prevention of venereal diseases, "prophylaxis" is the word usually employed to designate those procedures which are carried out *after* 'suspicious' contact, i.e. after infection may have taken place. Strictly speaking, it would seem that "prophylaxis" is not quite the correct term to apply to these procedures, for after infection has taken place, the disease is already present, although not manifested. We, therefore in our present studies, distinguish between (1) *Prophylaxis* i.e., preventive measures employed *before* infection or before inoculation (2) *Primary abortion* i.e., measures employed during the primary incubation period after infection or inoculation, but *before* the appearance of any manifestation (3) *Secondary abortion* i.e., measures employed during the secondary incubation period after the appearance of the primary manifestations, but early enough to abort the course of the disease (4) *Treatment* i.e., measures employed during any stage of the disease. In this classification, what is ordinarily called "prophylaxis" would be classed as *primary abortion*.

Each treatment consisted of the administration of a suspension containing one five gram tablet of Bismutrate (200 mgs of metallic bismuth) in approximately ten c.c. of distilled water. The suspension was introduced into the stomach through a #12 Fr rubber catheter. This tube was passed through the oral cavity and esophagus into the stomach and the suspension injected by means of a syringe.

The sera were all examined at weekly intervals, beginning with the first examination on the day of inoculation. The Wassermann, Kahn, and Kline tests were performed on all specimens, but since the results were more or less analogous, the Kline test results only are plotted in our graphs (Charts I & II). Typical chancres appeared only in the animals of groups I, III, and IV. However, the animals of group II (i.e. those receiving a combination of both prophylaxis and primary abortion treatment) at no time developed chancres or any other clinical or serologic manifestations of syphilis (Chart II). In those animals in the other groups in which chancres developed, dark field examinations were performed with uniformly positive findings.

As stated, chancres developed in all the animals of group I (prophylaxis group), and in all of group III (secondary abortion group), and of group IV (positive control group). Furthermore, the serologic findings became positive in all three of these groups. However, group I, comprising the rabbits which received Bismutrate before inoculation only, presented a marked delay in the development of positive serology. This seems to indicate that sufficient bismuth was absorbed to delay the development of positive serology. Nevertheless, because of the small number of animals we should not like to attribute too much weight to this finding. However, as can be seen by Charts I and II, the results in Group II (animals receiving prophylaxis plus primary abortion treatment, consisting of three administrations of Bismutrate on the three days immediately before and on four days after inoculation) were in sharp contrast to those in the other three groups. These animals at no time developed chancres, positive serology or any other manifestations of syphilis.

The lymph glands of these animals (62, 65, and 66) were removed and transplanted into new animals (July 2, 1935). These new animals did not develop any clinical or serologic evidence of syphilis. In addition, animals 62, 65, and 66 were reinoculated with the original strain on July 17, and all three developed testicular chancres and positive serology. The results of these experiments are additional proof that syphilis infection did not occur in the animals of group II (prophylaxis plus primary abortion). As the same strain was used there can have been no question of monoinmunity. The "take" of the reinoculation demonstrated that this negative result at first infection was not attributable to a silent course ("Nuller"-Kolle).

In a recent study, Kemp and Rosahn¹ also employed Bismutrate in the treatment of early syphilis in the rabbit. They found that twenty-four daily doses (20 mg of metallic bismuth per kilogram) failed to alter materially the course of early syphilis in five of the six animals treated. Similar unsatisfactory results were obtained with twenty-four daily doses of fifty mg metallic bismuth per kilogram.

The factors in our experiments differed from those of Kemp and Rosahn as follows:

1 Kemp and Rosahn employed twenty four daily doses each containing twenty five or fifty mgs metallic bismuth per kilogram. We used 200 mgs of metallic bismuth per treatment (approximately 80 mg of metallic bismuth per kilogram—group III). Treatments were given approximately three times weekly during a period of thirty-nine days (a total of 17 treatments per animal).

2 Kemp and Rosahn gave the Bismutrate only after inoculation. In our groups I and II the Bismutrate was administered before as well as after inoculation.

Comment

This report is submitted with full knowledge both of the danger of drawing conclusions from such a small series, and of the fallacy of attempting to apply the results of animal experiments to human conditions.

Our findings, together with those of Kemp and Rosahn suggest

1 That this oral bismuth preparation requires further investigation both regarding absorption and regarding possible therapeutic effects

2 That this preparation may, when given in large doses, permit the absorption of bismuth from the gastrointestinal tract of rabbits

3 That there is some possibility of successful prophylaxis and primary abortion of rabbit syphilis with the preparation, and that this effect is worthy of further study

580 FIFTH AVE.

962 PARK AVE.

References

- 1 Saxerac, R. and Levaditi, C. *Ann de l'Inst Pasteur* 36 1, 1922, *Lancet*, 1 639, 1923, *Cr Acad Sciences* 172 1391, 1921
- 2 Levaditi, C. *Pressé med*, 30 633 1922 *Le Bismuth dans le Traitement de la Syphilis*, Masson & Cie. Paris, 1924
- 3 Fournier L. and Guenot, L. *Ann de l'Inst Pasteur* 36 14, 1922, *Cr Acad Sciences*, 173 674, 1921
- 4 Serefis, S. *Med Klin* 30 968, 1934, *Deutsch med Wochschr*, 60 1237, 1934, *Arch f derm und Syph* 171 97, 1934
- 5 Levaditi C. and Nicolau, S. *Am de l'Inst Pasteur* 38 179, 1924
- 6 Mulzer, B. and Serefis, S. *Muench med Wochschr* 81 1525, 1934
- 7 Kolmer, J. A. *Arch Derm. and Syph*, 31 9, 1935
- 8 Rein C. R. and Sulzberger, M. *Ann. Jl Syph* 20 124, 1936
- 9 Kemp, J. and Rosahn, Paul. *Ibid*, March 1936

Discussion

DR. A. BENSON CANNON, *New York City*—While I have had no experience in the oral administration of bismuth in animals, I can readily appreciate the value of this work of Doctor Rein and its application to the treatment of syphilis in human beings. The results of his experiments are exceedingly interesting and well presented in this paper, and while the doctor has been most modest in his conclusions I am sure all of us know how much the working out of such problems adds to the sum total of knowledge of the effective treatment of syphilis.

About two years ago I became very much interested in the administration of bismuth by mouth, and Dr C N Myers and the pharmacist at the Vanderbilt Clinic were good enough to make up several gallons of metallic bismuth in glycerine. This we administered in maximum doses orally to a group of patients with primary and secondary syphilis. Later, I was supplied with a quantity of "Bismutrate" which I gave to another group of patients with primary and secondary syphilis. The observation of each case extended over three to four weeks and during that time there was no appreciable change in the character of the lesions except that in several patients they were decidedly worse and there were still numerous spirochete demonstrated in dark-field examination of secretion taken from the chancre and secondary lesions, especially in the condylomatous lesions. In each instance after the administration of one dose of old arsphenamine, there was begun a rapid disappearance of lesions. Several of the patients developed bismuth lines on the gums and a stomatitis and sometimes other toxic symptoms of absorption of the drug. Most of the patients objected to the

disagreeableness of taking Bismutrate and of its interference with their digestion.

These adverse observations caused us to abandon the treatment of syphilis with oral bismuth. I am sure, though, that we had no patients come to us until several weeks had elapsed after their exposure.

Dr Raiziss in a personal communication said that he had found that the injection method of administering bismuth was at least five times more effective than the oral.

The results that Dr Rein had in group II were particularly gratifying and should encourage further experimentation with this drug.

DR. HERMANN FEIT, *New York City*—I shall never forget my first experience with a French preparation (Trepol) which was brought from Paris before bismuth was available in Germany. We used it on a patient with late secondaries on the scrotum which was treated by Prof Erich Hoffman with all kinds of arsenicals and mercury preparations without any change. After a few trepol injections the lesions completely disappeared. When Dr Rein now introduces a bismuth preparation which probably can be used in men by mouth a gap will be filled because pain is still an impediment in intramuscular bismuth therapy. It would be interesting to determine the arsenic content of the new preparation as all bismuth preparations contain this metal as Abramowitz has shown and the possibility of which we all had suspected. I have shown a patient at the Academy of Medicine with an exfoliating dermatitis who had only bismuth therapy. The dermatitis naturally could not be distinguished from a salvarsan dermatitis.

MUNICIPAL SYPHILIS CONTROL

THOMAS F LAURIE, M D , *Syracuse*

Since January 1, 1936 the plan for control of syphilis as outlined by the New York State Dept of Health has been in operation in Syracuse. Although too early to draw reliable conclusions, it is worth-while to study the results so far obtained in an effort to make improvements.

The activities of the Bureau consist of the following:

- 1 Diagnosis and treatment.
- 2 Epidemiological investigations
- 3 Publicity and Health education
- 4 Instructions and information for physicians

We have a Central Dispensary for the general medical care of indigent patients. In this building is the clinic for Syphilis and Dermatology. Gonorrhea is treated in the Genito-Urinary and Gynecology Clinics in the same building. The clinic has adequate equipment and personnel for the diagnosis and treatment of syphilis. The staff is paid. No physician receives less than \$5.00 for each clinic period. The office of the epidemiologist and his assistants is in close proximity to the clinic. Housed in the same building is the Bureau of Laboratories of the Syracuse Department of Health, all dark-field and serological examinations are made there, and also the supply stations for drugs supplied by the State Health Department.

To prevent the spread of syphilis chief interest centers in the following:

- (1) Detecting the early cases,
 - (2) treatment at the earliest possible moment,
 - (3) searching for the contacts and immediate treatment of them if infected.
- The late cases are of little importance from the standpoint of syphilis transmission. Our main source of information is the Laboratory. All positive dark-field and serological examinations are reported to the Bureau of Social Hygiene office as

soon as possible. If a private patient has a positive dark-field his physician is called and asked to find out if possible the source of infection and to fill out the form prescribed by the State. The Bureau, if requested, will assist the physician. If a clinic patient, the same procedure is carried out by the Bureau. Positive serological reports are examined and an effort made to classify these patients as early or late infections. Private physicians are asked by letter whether the cases are early or late infections. Contact with hospitals is maintained through Social Service and in this way reports are obtained. The response from private physicians has been extremely gratifying as noted in the tabulations. Most of these reports concern late cases however. Reports of early cases are relatively few as are also the number of dark-fields as compared to the number of positive serological examinations in the past few years. Whether or not this is due to a decrease in the number of infections or neglect of physicians to use the laboratory, it is impossible to say at this time. We endeavor to promote by every possible means the importance and necessity of dark-field examination of all genital lesions. No real epidemic has been encountered. This is a good sign providing our efforts at epidemiological investigations have been dependable. It is our belief that finding contacts in large centers is more difficult than in the rural communities. This is probably due to several reasons including the following: (1) In cities people are more liable to move from one location to another, (2) More complex social order, (3) Prostitution more common. We have a negro population of 2,500. Efforts are being made to correct regrettable conditions of the colored people. All early cases and those considered potentially infectious, are registered in

*Read at the Annual Meeting of the Medical Society of the State of New York,
New York City, April 29, 1936*

our files All information regarding each patient and contacts is kept in a separate folder So far we have twenty-four registered patients, of these six are very early cases and the rest are those under treatment at the Dispensary

A comparison between rural and urban epidemiology is interesting Dr Philip J Rafle, District State Health Officer, permitted me to use a report of an epidemic which occurred in and about a nearby village during 1934 and 35.

A young man, with early syphilis under the care of a private physician named a twenty-year old girl, as the source of infection He denied other sex contacts This girl was promptly placed under observation, and found to have a positive blood Wassermann reaction. She readily admitted sexual promiscuity giving the name of twenty-four other contacts, twenty-two of whom were subsequently placed under medical observation. Seven of these persons were found to be infected. In addition, one of these men gave the name of a second young woman to whom he may have transmitted the infection This girl was examined, and the blood Wassermann reaction was positive

It took much time to search out all of these contacts The girl, first mentioned was below average mentality and was willing to divulge all the names of contacts

Compare this with an investigation which is being made in Syracuse

CASE 1 A colored boy, age nineteen, came to Genito-Urinary Clinic at the Dispensary He had a chancre, and the dark-field was positive When questioned regarding contacts, he denied, at first, that he had relations with anyone. Finally, he named a colored girl in Syracuse, giving her name and address He also named a girl in New York City, whom he had "picked up" on the street while visiting there. He did not know her name or address

The girl named, was examined, and found to have infectious vaginal lesions

This colored boy is receiving injections of Mapharsen every five days, and has been regular in coming for treatment

CASE 2 This girl, aged twenty-two, was named by case 1 as the source of his infection She was diagnosed as having an early, infectious syphilis, and was hospitalized at the Venereal Disease Detention Hospital

She gave the names of five men with

whom she had relations in the two months previous to the diagnosis of syphilis One of these men was her husband, from whom she is separated, and apparently had no idea of his whereabouts, therefore, he could not be examined Another man, whom she knew by his first name only, could not be located. Two of the men were examined, one had a negative Wassermann, and no signs of syphilis, the other man was positive, and is now under treatment. The fifth man was also examined, and found to have an early syphilis He is also under treatment

This investigation shows the difficulty in an urban community of locating contacts whose last names are not given and where they move from one location to another In addition there is always the reluctance of a prostitute to disclose names of contacts

No set plans are being followed for an Informational and Health Educational program Advantage is taken of every opportunity to talk to lay groups in factories, churches, clubs, and other organizations In time radio talks will probably be made by members of the Bureau The newspapers as a rule are co-operating and the words "gonorrhea" and "syphilis" are not infrequent in the news articles The Onondaga Health Association has a Social Hygiene Committee interested and cooperating in the activities of the Bureau

There has been most satisfactory co-operation from the medical profession This is evident by the number of cases reported by physicians as compared with hospitals Although no scheduled post-graduate instruction is offered, physicians are always welcome to avail themselves of the opportunities presented and a few have done so Such a course of instruction will probably be given in the near future In the College of Medicine of Syracuse University the senior students receive instructions concerning syphilis control as a part of their course in Public Health

So far as can be determined there has been no opposition to the plan by private practitioners There has been no interference between the relations of the private physicians and his patients and this is as it should be All patients who can afford to pay are referred to their own doctors

The plan has been presented to most hospital staffs in the city and it has met with favor after a free discussion of all phases of it. It is worth while to constantly remind physicians of the plans and activities because they have a right to know and such a policy assures co-operation. The *Bulletins* issued by the U S Public Health Service on venereal disease information containing reports of the latest developments in this field should be had by all physicians. Perhaps a wider distribution of these *Bulletins* will be possible in the future.

The following is an outline of the Bureau organization and activities with the facilities for epidemiological investigation and a report of the results of three months under the present plan.

Bureau of Social Hygiene A separate department of Syracuse Department of Health with its own staff and budget, directly responsible to the Commissioner of Health.

Clinical Director of Bureau—Part time

Syphilis Clinic Two services—each six months—three physicians—part time on each service.

Genito-Urinary Clinic Two services—six months each—two physicians part time on each service. Two full-time nurses, one does follow-up work. In addition, dispensary nurses available for service in clinics.

Epidemiological Personnel

- 1 Director, Physician part time
- 2 Physician part time, follow-up work with private physicians
- 3 Medical Social worker
- 4 Nurse, follow-up and clinic service.
- 5 Secretary, full time
- 6 Clerk, full time (to be appointed)

Location—Syracuse Free Dispensary

Clinics

1 Syphilis Four each week—one held in the evening

2 Gonorrhea Four each week—one held in the evening

Adjuncts of Main Clinics—Venereal Disease Hospital, mainly a detention place for infectious cases, and venereal cases from police court.

- 1 Twelve bed hospital and treatment room.
- 2 Physician—part time
- 3 Two nurses—full time.
- 4 One clerk—part time
- 5 Housekeeper—full time.

Police Court Clinic Small examining room in Matron's quarters, where women arrested for prostitution can be examined. Women found infected are either sentenced to Onondaga County Penitentiary, where they receive treatment, or given suspended sentences and receive treatment at the dispensary.

Scope of Work in 1935

1 917 patients examined in Syphilis Clinic, 730 of these on active treatment.

2 934 patients examined in Gynecological Clinic and Genito-Urinary Clinic.

3 13,296 visits by syphilitic patients, and 3,960 visits by gonorrheal patients.

4 There were 320 new patients admitted to the syphilis clinic, 30 of these were early cases.

5 In addition to above, about 150 patients were referred from Police Court for treatment.

Where Cases Come From

- 1 Referred from all clinics in dispensary
- 2 Referred from hospitals
- 3 Referred from private physicians
- 4 Referred from clinics and physicians outside of Syracuse

TABLE I—REPORTS OF VENEREAL DISEASES

	Jan (1936)	Feb	Mar	Total
Hospitals	32	57	38	127
Police Court	21	11	2	34
Dispensary	1	12	4	17
Private physicians	42	32	36	110
	96	112	80	288

MEDICAL ARTS BLDG.

New York City Plans for Combating Syphilis

CHARLES WALTER CLARKE, M A, M D, F A C P, *New York City*
 Director, Bureau of Social Hygiene, Department of Health, New York City

Aside from the action of favorable or unfavorable natural forces, the possibilities of reducing the prevalence of a communicable disease depend upon our knowledge of the disease, and on the administra-

tive practicability of measures for applying our knowledge effectively. As Hermann Biggs said, "within natural limitations a community can determine its own death rate." Syphilis is a communicable disease.

which ranks high as a cause of disability and death. Do we know enough about syphilis ever to eradicate it? If so, can our knowledge be applied practically? I believe the answer to both of these questions is in the affirmative.

As a matter of fact we know as much about syphilis as we know about any communicable disease including its etiology, pathology, course, diagnosis, treatment, and prognosis. Especially, we know how to render syphilis noninfectious and how to keep it so. If every case of early syphilis or even a large majority of such cases were found and given twenty doses of arsphenamine and forty doses of bismuth or mercury by the continuous method of treatment, the end of this disease would be in sight.

Each week, nearly a thousand newly diagnosed cases of syphilis are reported to the New York City Department of Health, over 50,000 per year but this is only a small part of the vast number in our population. If the prevalence rate of syphilis in New York City is as high as that of the United States as a whole, we must assume that there are in New York City about 378,000 cases, in other words about five per cent of the population. If we spend as much per capita for the medical and custodial care of cases of syphilis as St. Louis spends we must pay out each year about \$17,000,000 for these purposes. At present our best hope of eventual conquest of syphilis and of relief from the burden of its care appears to lie in the fact that syphilis can be rendered noninfectious by treatment. This is the foundation upon which has been built the success that has thus far been attained—success that is brilliant though limited to but a few small countries. In Denmark, a country having about half the population of New York City, syphilis has been reduced from about 700 per 100,000 in 1885 to 35 per 100,000 in 1935. Syphilis is about as uncommon in Copenhagen as typhoid fever is in New York City. In Sweden the highest prevalence rate recorded was in 1919 when an explosive epidemic carried the rate to about 600 per 100,000. In 1934 it has fallen to forty-three. Great Britain has apparently reduced the number of cases of syphilis by one-half since 1920 the highest point. In each of these countries the essential factor in achieving success appears to have been the treatment of infectious cases to render them noninfectious.

We have in New York City almost 14,000 licensed practitioners of medicine. I maintain that these physicians constitute the

shock troops in our battle against syphilis, more valuable than all the many clinics and hospitals, voluntary and official, in the city. Private practitioners collectively see or have the opportunity to see more cases of syphilis than all the institutions combined for these cases, many of them unaware of luetic infection, are visiting general practitioners and specialists for every malady to which the flesh is heir. More general use of modern diagnostic procedures, and a "lower threshold of suspicion" of syphilis would lead to the discovery of many thousand more cases of syphilis and the treatment of these cases, to the enormous benefit of the public health and the profit of the profession.

I

The immediate objective of the New York City Department of Health is to aid private physicians in discovering, treating, and controlling syphilis among patients who go to private practitioners. The practical aids which the Department of Health proposes to offer may be briefly described as follows:

1 Diagnostic Services. The Department of Health laboratory performs serologic tests for syphilis without charge, (215,000 specimens tested last year). At every one of the fourteen diagnostic centers blood specimens are taken for private physicians on request. Expert dark-field examinations and diagnostic consultations are offered in these centers, the reports being sent directly to the physicians. These diagnostic aids are available for all classes of syphilis and physicians are invited to use this service freely without fear of losing their patients.

2 Treatment Services. In order to enable private physicians to care for a larger number of patients having syphilis especially that large body of individuals who cannot pay the full regular fee the Department of Health plans as soon as possible to provide neoarsphenamine, bismuth or mercury in amounts sufficient for one year of the treatment in accordance with modern therapeutic methods. These drugs are to be supplied free upon request without distinction as to the patient's ability to pay the physician a full fee or any fee for his service. This would enable private physicians to give medical care to many patients who can pay only a small fee—fees comparable with those charged by many so-called "pay clinics." Judging from the numerous requests received by the Department of Health there are many physicians

who would be happy to treat certain patients free of charge if the necessary drugs were supplied. Because the funds when available for this purpose are expected for the present to be limited, drugs will be provided to private practitioners only for the treatment of early syphilis, syphilis in pregnancy, and congenital syphilis. Later it is hoped that the same assistance may be extended to all cases of syphilis found under private medical care. Physicians willing to cooperate with the Department of Health in the diagnosis and treatment of syphilis will be asked to report their cases at the time of requesting drugs, if they have not already done so, and supplies will be furnished in four allotments—each sufficient for three months of continuous modern treatment. Every effort will be made to supply the drugs of the physician's preference and by a system convenient for the practitioner. It should be understood that the Department of Health does not plan to require the physician to state that his luetic patient is indigent or unable to pay a fee for medical service, nor will the Department suggest any schedule of fees which the physician should charge if he uses drugs furnished by the Department. It is anticipated, however, that where a patient is able to pay the full specialist fee for medical care, the physician will not wish to administer drugs obtained at public expense.

Upon request, the services of especially selected and trained nurses will be made available to follow up lapsed cases reported by physicians, the nurse for the time being working under the direction of the physician reporting the lapsed case. This is an important feature of the plan since by sufficiently sustained treatment syphilis may be rendered permanently noninfectious and in many cases a clinical cure may be achieved.

3 Epidemiological service After a case of syphilis has been brought under treatment, the next most important duty is to answer the question, "From whom did the patient acquire the disease and to whom may he or she have transmitted it?" This in substance is the epidemiology of syphilis. In early syphilis, syphilis in pregnancy, and congenital syphilis, we have our best opportunity for epidemiologic work and many physicians in their daily practice are doing excellent case-finding work with patients of these types. The Department of Health as soon as possible will offer its services to aid the physician in finding the source of infection of the patient having early syphilis, syphilis complicating pregnancy or congenital syphilis. For this service a group of physicians will be employed and especially trained. The Department will make their

services available to physicians requesting drugs and to any other physician who wishes the cooperation of the epidemiologist in finding sources of infection and in bringing them under treatment, but in no case will action be taken without the approval of the physician with whom we are cooperating. Where this plan has been in operation about twenty-five per cent of the sources of infection have been brought under medical care, through the cooperation of the private physician and the epidemiologist.

4 Educational activities The Sanitary Code requires that every person found by a physician to have syphilis or gonorrhea shall be given a pamphlet of instruction with regard to his infection and the protection of contacts. The Department of Health furnishes this pamphlet to physicians and clinics. New editions in appropriate foreign languages are being prepared. The Department also cooperates in making postgraduate instruction available to physicians, bringing to their attention the most accepted modern ideas and methods of diagnosis and treatment of syphilis.

5 The reporting of syphilis In reporting a case of syphilis or gonorrhea or other communicable disease to the Department of Health, a physician renders a valuable public service. It would be appropriate in New York City as in Great Britain to compensate the physician for this report, and if funds were available, I should be glad to see this done. The least that the Department of Health can do, it seems to me, is to make reporting convenient and free even of the cost of postage. As soon as possible it would be desirable to provide a more convenient form for reporting, and to pay the postage upon receipt of the report. All the physicians will have to do then is to fill in the facts, slip the form into an envelope provided by the Department of Health, and deposit it in the post-box. (Reporting by initials and address is permissible and I wish to emphasize that all reports are strictly confidential, and are kept under lock at the Department of Health.) Direct reporting by physician is of great service to the Department and will be of greater service as our plans get under way, for this source of information will be taken into account in judging the progress of our fight against syphilis.

The plans discussed above are subject to modifications as the need and recommendation of physicians may indicate. We hope that these measures will help to remove the economic barriers that stand in the way of many patients who might be given medical care by private practitioners. These meas-

ures should enable private physicians to participate more fully in the attack on syphilis and bring them to the front as auxiliary health officers

II

The fifty clinics of voluntary hospitals in New York City should play a more important part in the fight against syphilis. It is proposed to aid these clinics to increase the number of indigent patients to whom they give medical care gratuitously. Many of these clinics would be willing and able to provide treatment without charge for a larger number of poverty stricken patients if drugs were supplied by the Department of Health. To clinics which charge only low fees—fees that cannot possibly compete with those of private physicians, it is desirable that the Department of Health should provide drugs to enable them to care for indigent luetic patients. In this manner, facilities are increased and brought closer to those who need them. The Sanitary Code regulates the conduct of these clinics and requires the maintenance of certain standards including adequate personnel for the follow-up of cases. After clinics have exhausted their resources in endeavoring to return lapsed infectious cases to treatment or to bring sources of infection under control, the Department of Health now employs its legal authority to seek out such uncooperative individuals and bring them under medical care. Whenever such cases are reported to the Department of Health, whether by clinics or physicians, appropriate action is taken.

III The City Hospitals

The provision of treatment for syphilis in indigents and others who cannot pay, whether this treatment be ambulatory or inpatient is primarily the function of the various tax-supported hospitals of the city. In spite of the best efforts of the Department of Hospitals and although splendid progress has been made in 1936, the facilities are still very far short of the needs of the city, especially in respect of bed accommodations. The greatest single need in New York City, it is believed, is more bed accommodation for infectious cases of syphilis and gonorrhea whether they be voluntary admissions or legally removed by the order of the Health Department. In the New York City fight against syphilis, scarcely any more important development has occurred than the provision of funds for the payment of physicians rendering

medical services in the syphilis and gonorrhea clinics of the city's hospitals. This will result, it is believed, in much more and much better service for the infected poor.

The relation of the Health authority to the City Hospital clinics is defined by the provisions of the state law and of the Sanitary Code. They provide for the follow-up by the Department of Health of lapsed infectious cases and sources of infection and give the Department power to require examination and treatment if indicated. Certain City Hospitals receive and give medical care to infectious cases of syphilis and gonorrhea removed to them by the authority of the Health Department. Neither the private physician nor the hospital, whether voluntary or official, has the authority to detain forcibly a case of infectious syphilis or gonorrhea. But by bringing such a case to the attention of the Department of Health appropriate action can be and is promptly taken for the full protection of the public health, and such cases are received by a city hospital designated by the Board of Health. More use should be made of this authority vested in the Department of Health, but more bed accommodations are needed before the laws can be used to the fullest extent for these quarantine procedures.

IV The Department of Health

We come at last to the Department of Health. Much of the work and the plans of the Department have been already described. The Department has primarily the duty of promoting, directing, and aiding the attack on syphilis as a communicable disease. As a matter of sound policy it may work through other agencies both official and voluntary to gain its ends. It must supply deficiencies. Thus for the present it is obliged to supply a part of the treatment facilities for the very poor and it now maintains seven treatment centers all of which are crowded to capacity with the unemployed and other very poor infected persons. Still more treatment facilities are badly needed but it is hoped that the larger participation of private physicians, voluntary hospitals, and the increased services of the Department of Hospitals will largely meet this need. When the Department of Health can properly close its treatment clinics it will do so, believing that treatment can eventually best be carried out in and by the city's hospitals.

No permanent service of the Department of Health is more important than that of instruction of the public with regard to

syphilis This in the future will be done to a larger extent and by better methods than in the past Diagnostic services and consultations are believed to be permanent case-finding functions, so long as syphilis remains a major health problem At present there are fourteen centers for these services The epidemiology of syphilis is a permanent obligation and the epidemiological service should be rapidly developed, for by finding and treating the infectious cases, syphilis can be brought under control

The hope of success in combating syphilis, in reducing its prevalence and mortality rates lies in full understanding and cooperation between all who are responsible for any phase of the program We cannot transport to America any European plan, successful as they may have been abroad We must draw up our own blue prints and

build our own public health structure. Useful suggestions come from a study of the Swedish Plan and equally the Danish Plan. They clearly indicate to us the fundamental scientific principles on which their success has been based But what we need for New York, we contend, is a New York Plan—one that is based on the essential medical data, but nicely adapted to our particular social and medical institutions and conditions

Without expecting miracles, but anticipating that the changes will be indicated as we progress, we believe that a start in the right direction has been made and that with the cooperation of our colleagues in private practice and in hospitals, we will, if we persevere, see a radical reduction in the prevalence of syphilis and in the disasters which it causes

THE MORE 'CURES' THE LESS CURE

Manufacturers and purveyors of patent medicines advertised as "cures" for arthritis were held up to ridicule by Dr Laurence H Mayers, professor of medicine at Northwestern University, in an address before a meeting of the American Society for the Study of Arthritis at the New York Academy of Medicine on Dec 3

Dr Mayers explained that there could be no single cure for arthritis, because there are "a thousand" causes of arthritis, and each cause requires separate treatment At the same time, he said, there are 308 trillion possible combinations of drugs, each one advertised as a "cure" for the disease The word, "arthritis," he said, means merely a bone inflammation, regardless of cause

Dr Mayers said that pure food and drug laws are effective only in keeping dangerous drugs off the market, but do not operate against the "quackery" of advertised cures He showed a neat roll of paper, on which he said he had listed the trade names of "cures" The names were typewritten, one name to a line, the lines single-spaced The list was thirty-one feet long

"If an arthritic hobbled into a drug store," he said, "and asked the clerk what he had for arthritis, the clerk could keep him standing there talking continuously for three days, two nights, seven hours and twenty minutes, and he could devote only one minute to each drug, telling the arthritic how and when to use it.

"If the arthritic should then say, 'What I really meant to ask you was what do you have to rub on the joints—I don't

want to take anything by mouth—and I haven't time to wait while you tell me about them, but just make up a sample of each preparation to rub on, and I'll send over and have these picked up as you make them,' he could keep 5,000 druggists busy working for three years preparing samples of the different kinds of liniments And he could use one-third of the ten million of the army of unemployed as messengers, that is, if he wished to finish the delivery in a year"

There is not one of these liniments, Dr Mayers said, that is of any greater therapeutic value than would be the application of a hot, wet towel to the afflicted joint. The potions to be taken by way of mouth are somewhat better, in that they give a temporary relief from pain, but none of them, he said, is a cure for arthritis

He observed that of 100 cases of sickness, eighty patients will recover naturally, eight will die in any event, and only in twelve cases can the doctor be of any assistance "A lot of arthritics get well anyway," he said, "and they will say that whatever they took last cured them"

He spoke of the old-fashioned vendor of "snake oil," who, he said, "started something" But he was an individual, and now he is incorporated, talking over broadcasting stations "to twenty-one cities through seventy-three outlets at \$18,660 an hour, to an audience of indefinite millions and he hires a symphony orchestra and several opera stars, and winds up by selling U-Rub-It instead of snake oil liniment, which was the same thing"

FAMILIAL TELANGIECTASIA WITH RECURRING EPISTAXIS

Successfully Treated With Radium, With a Review of Literature

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We wish to report a case of familial telangiectasia with recurrent epistaxis that was brought to our attention at the Beth Israel Hospital, and which responded remarkably well to radium therapy. Because of the rarity of this condition, we feel that a brief review of the literature on this subject is well-warranted.

Case Report

R. G., aged thirty-nine, housewife was admitted to the Beth Israel Hospital on March 19, 1934, on the Medical Service of Dr. Rothschild. Her complaint was profuse and repeated nasal bleeding.

Her family history was irrelevant. There was no definite history of "bleeders" in the family. Her parents were not blood relatives. The patient did not recall a single member of her family having been affected by a similar condition, with the exception both her parents had many "birth marks." Patient had been married eighteen years and has had three children. One boy aged seven, and a daughter, aged ten, are living and well. The daughter has been troubled with an occasional nose bleed, which she attributed to picking her nose. One child died at the age of twenty-two months of pneumonia. The patient menstruated regularly and normally, and gave no history of bleeding excessively from accidental cuts and other minor injuries sustained in her daily life.

Patient dates back the onset of the present condition to the age of nine, when she was first troubled with nasal bleeding which occurred at infrequent intervals and was of a trivial nature. These attacks gradually increased in frequency and severity, and for short intervals they recurred daily. One year ago she had a profuse nasal hemorrhage which necessitated a transfusion of five hundred c.c. of blood. On the day following the transfusion she developed a

thrombophlebitis of the left leg, which confined her to bed for about ten weeks. For the past few months the bleeding from the nose has become profuse and alarming, recurring at frequent intervals. Just prior to her admission, the patient suffered from a severe attack of epistaxis which brought her into the hospital.

Examination on admission revealed a fairly well-developed and well-nourished, although somewhat pale, middle-aged woman. Head and eyes were negative, pupils reacting to light and accommodation. Examination of the nose disclosed numerous small, ramifying blood vessels on both sides of the nasal septum anteriorly, in Kisselbach's area. These vessels stood out prominently through the thin mucous membrane, especially after the area was blanched with cotton pledgets, consisting of equal parts of ten per cent cocaine and adrenalin. At the lower anterior part of the left side of the septum, near the floor of the nose, there was a very large, wide blood vessel, the site of recent bleeding. The mouth disclosed telangiectatic spots on the anterior and dorsal run of the tongue as well as on the inner side of the left cheek. The pharynx showed several prominent dilated blood vessels, with one bleeding point visible on the left side of the pharyngeal wall. The tonsils were small, cryptic, and diseased. The ears were normal. The heart showed no enlargement on percussion, the sounds were of good quality, and no thrills were felt. There was a loud, harsh, systolic murmur heard all over the precordium with maximum intensity over the aortic area. This murmur was also transmitted to the vessels of the neck. Blood pressure was 115/70. The lungs were clear throughout. The abdomen was negative, liver and spleen were not palpable. Extremities revealed eczematous, dry, and scaly eruption of both lower legs with marked varicosities of both thighs and legs. There were several telangiectases scattered on the face,

From Medical Service of Dr. Marcus A. Rothschild and Oto-Laryngological Service of Dr. Samuel J. Kopetzky, Beth Israel Hospital

back, and abdomen, varying in size from a pinhead to a split pea. There was generalized capillary dilatation of both malar areas, giving the skin a peculiar cyanotic or purplish appearance. There was no lymphadenopathy.

Examination of the blood revealed 4,520,000 red blood cells, 5,600 white blood cells, seventy per cent hemoglobin, one per cent reticulocytes, 179,860 platelets. The bleeding time was $2\frac{1}{2}$ minutes, coagulation time $4\frac{1}{2}$ minutes, with normal clot retraction. Differential count showed fifty-six segmented, thirty-two lymphocytes, eight monocytes, one staff cell, two eosinophiles, and one basophile. Blood calcium was 9.4 mg per one hundred c.c. Blood grouping was #4. Wassermann reaction was negative. Basal metabolism was plus nine. ECG showed QRS, slurred and T_i inverted.

Consultation

Dr. Rothschild, who first saw the patient, diagnosed the condition as one of multiple hemorrhagic telangiectasia, despite any clear-cut familial history.

Dr. Kopetzky, who was called in consultation, noticed the hemorrhagic spots on the tongue and pharynx, as well as the blood clots and crusts on the nasal septum following a recent bleeding. He concurred in the diagnosis as well as to the advisability of the use of radium in this case.

Treatment

On March 28, 1934 the left nostril was cleansed and then blanched with equal parts of ten per cent cocaine and adrenalin applied for ten minutes. An applicator containing thirty-five mgm of radium element, properly screened, was then inserted opposite Kisselbach's area against the prominent blood vessels of the septum. The radium was permitted to remain in the nose for six and a half hours, giving a total dosage of 310 millicurie hours of radiation. No reaction was noted for the next forty-eight hours. On April 3, the right nostril was similarly treated with no reaction following. The patient was discharged from the hospital on April 4, with instructions to return for weekly nasal examinations. No further bleeding occurred except for a slight oozing following the removal of septal scabs.

Examination of the patient on June 26, three months later, revealed the dilated blood vessels practically gone, with Kisselbach's area blanched and smooth. There was a small area covered with a scab, which

upon removal showed a raw surface oozing blood. No further bleeding occurred.

Examination on September 28, six months after radiation, revealed the mucous membrane of the anterior part of the septum blanched, and all the vessels obliterated. Again there was no evidence of bleeding.

Comment

The bleeding in this case arose from the site of an arterial plexus formed by the junction of the inferior maxillary and the extending branch of the palatine artery. The mucous membrane in this area, Kisselbach's area, was so very thin and the veins and arteries so superficial that the slightest trauma, even sneezing or coughing was provocative enough to open them and cause bleeding. Hematological studies of this patient revealed no abnormalities which are the usual findings in these cases of epistaxis. Practically every conceivable method of treatment known had been previously used to stop this patient's bleeding, but with no success, until the application of radium which brought complete relief.

Review of the Literature

The condition of the familial telangiectasia with recurring epistaxis, known as Osler's or Rendu-Osler-Weber's disease, was first reported by Babbington¹ in 1865 in a family in five successive generations. Babbington recognized the familial nature of this affection, but did not mention in his report the underlying pathologic basis for the hemorrhagic tendency. Wilson² in a treatise on "Eruptive Angiomata" records a case of a publican who was troubled with epistaxis and bleeding from the gums, who subsequently developed "red papules" on the face, neck, hands, and arms, but fails to make mention of any family incidence. Various similar reports, notably those of Legg,³ Chiari,⁴ Chauffard,⁵ and Ullmann,⁶ call attention to this interesting condition as a form of hemiophilia. Rendu⁷ described a case of epistaxis with telangiectases with a definite family history, and referred to this condition as "pseudo-hemophilia."

Sir William Osler, in 1901⁸ and again in 1907,¹⁸ first called our attention to this condition as a distinct clinical entity.

He remarked that these telangiectases may be found on other mucous membranes and on the skin, and may be the cause of hemorrhages. Parkes-Weber¹⁶ in 1907 reported a family that presented recurring epistaxis with telangiectases and reviewed the history of eight families previously recorded. In his conclusions he emphasized that this condition affects and is transmitted equally by both sexes, that it is not associated with any hemophilic tendency, and that the angiomas are not congenital but late development defects, and that the tendency to epistaxis is present in early life long before the appearance of the telangiectases. Subsequent reviews by Hanes,^{26,30} Audry,³⁵ Gjessing,^{38,40} Steiner,^{41 a & b} Goldstein,^{46,50,57} East,⁵⁶ and Aubertin⁹² are very comprehensive and extremely illuminating.

Clinical features

It is now well-established that this condition is familial and hereditary and that the inheritance factor in this malady is a dominant one (Gossage¹⁹ and Henle⁴⁹), though atavistic skipping has been reported on several occasions.^{51,71,95} Likewise it has been definitely shown that both sexes are equally affected, and that its transmission is not sex-linked,¹⁰ with perhaps a slight preponderance in females.⁵⁶

The various blood findings, such as bleeding time, coagulation time, clot retraction, blood calcium, platelet count, white blood cell and differential count, and erythrocyte fragility tests are within normal limits.^{16,51,96} A hypochromic anemia is usually found and the degree is dependent upon the severity and duration of the bleeding. In many cases the anemia has been quite marked and troublesome,^{7,8,35,86,90} and not infrequently has resulted in death.^{5,14,17,20,42,74,80,105} When the bleeding has been profuse, the usual concomitant symptoms, such as, weakness, dyspnea on exertion, palpitation, vertigo, fainting, and edema of the legs, are invariably encountered. Most authors stress that the nasal bleeding usually begins at the end of the first decade and that the telangiectases do not become visible until about the middle of

the third or fourth decade,^{16,35,80} Erdheim,⁹⁹ on the other hand, maintains that in over fifty per cent of the cases the telangiectases appear at an early age. In our case the patient was first troubled with epistaxis at the age of nine.

The nasal bleeding is by far the most frequent and annoying feature that is encountered, it is not the only one. Cases of profuse and repeated hemoptysis^{45,50,111} hematemesis^{8,74,84,95,97} hematuria^{9,12,32,56,64} intestinal and rectal bleeding,^{24,39,42,68,74,75,84,98} and hemorrhages into the central nervous system,^{48,59,80,89} with or without associated epistaxis have been reported in familial and hereditary telangiectasia. Of course, it must be admitted that several of the above citations are not true examples of this clinical syndrome inasmuch as either one or another of the cardinal features is lacking. Nevertheless, their inclusion is justifiable since atavistic forms of this affection have been frequently found. The fact that telangiectases have not been found in some of the cases cited above does not necessarily exclude them from this clinical group, as minute angiomas may very readily be overlooked in parenchymatous organs, such as kidneys or lungs.

The blood grouping of four cases reported by Fitz-Hugh⁵ were found to belong to group "O" or type IV (Moss). This author states that individuals who present an associated hepatosplenomegaly develop an increasing intolerance to transfusion in the form of "post-transfusion jaundice," and cites two incidents of death following its use. Van Bogaert¹⁰² concurs with these findings. Adant¹⁰⁰ in his report of three cases found the same type IV in all. In our case too, the blood group was type IV.

Recently Fitz-Hugh⁵ and others^{66,72,80,102} have observed an associated enlargement of liver and spleen, particularly in those patients who have been suffering from repeated and prolonged hemorrhages. Van Bogaert¹⁰² is of the opinion that the hepatosplenomegaly constitutes an integral part of the clinical entity, and is not the result of repeated hemorrhages. Marked varicosities of the legs and thighs^{16,31,67,72,90} and the presence of hemorrhoids^{8,28,32,76,92,97,103} have been frequently observed in the more

advanced stages of this affection Adant¹⁰⁷ believes that the anomaly of spina bifida found in his case is analagous to the developmental defect of the blood vessels. Cases presenting visceroptosis and hernias have been observed in this condition.^{97 109} The presence of a systolic murmur in the absence of any marked degree of anemia has been previously reported on many occasions.^{10 41a 68 81b 89 95} In our case the murmur was quite striking and unusual in quality. In view of the absence of any luetic or rheumatic history and without any definite evidence of arteriosclerosis we ventured to regard it as a result of an inherent developmental valvular defect analogous to the vascular maldevelopments. At any rate, we feel it deserves mention and further observation.

Pathology

The histopathology of the lesions in hereditary telangiectasia has been described by Hanes,²⁰ Gjessing,⁴⁰ Arrak,⁶³ and others.^{67 99} It consists essentially of a developmental defect in the vessel wall and menenchymal tissue of the skin and mucous membranes. The venules and capillaries constituting these telangiectases are dilated and thinned out, being lined by a single layer of endothelium interspersed with a single stratum of connective tissue protruding just under the corium. The papillae and the usual undulations of the stratum germinativum are obliterated. The muscular and elastic layers of the vessel wall are conspicuously deficient. These angiomas vary in size from a pinhead to a split pea and may be punctiform, nodular or of spired variety. They are found mostly over the nasal septum (Kisselbach's area), lips, cheeks, eyelids, scalp, tongue, particularly dorsum, tip and edges, gums and other parts of the buccal mucous membranes, and to a lesser extent over the trunk and extremities. On the finger tips their site of predilection is under the nail bed.^{5 10 25 37 42 69 89 97} Angiomas have also been found in the stomach,⁸ bladder,^{66 94 100} kidneys, respiratory organs (larynx,^{10 92 103} bronchi,⁵¹ and vocal cords^{94 106}), lower bowel,^{84 100} brain and liver.^{84 100} They bleed very readily following the slightest trauma,

and at times without any provocation.²² A severe and profuse epistaxis has been known to follow a mild sneezing, coughing or blowing of nose. Occasionally a change in weather conditions has been found to be the cause of sudden nasal hemorrhage.

Differential diagnosis

The diagnosis of hereditary hemorrhagic telangiectasis is, as a rule, not difficult. The disease with which it is most often confounded is hemophilia. As a matter of fact, several of the original reports were classed in this category.^{3 4 5 6} It can easily be differentiated from hemophilia by the normal coagulation time and by its occurrence in either sex. From purpura it is differentiated by the normal bleeding time, normal clot retraction, negative tourniquet test, and normal platelet count. Cases that present hematemesis, hemoptysis, melena or hematuria may occasionally be confounded with diseases of those organs, such as, tuberculosis, malignancy, etc. In these cases a careful history and the finding of telangiectases have proven helpful in diagnosing this condition. Occasionally it has been mistaken for pernicious anemia⁷¹ and subacute bacterial endocarditis.¹⁰¹ Here again, the nature of the spots, the history of familial incidence, the negative blood findings, and the absence of the cardinal symptoms of those diseases will readily exclude them.

Treatment

The treatment of this affection resolves itself principally to the arrest of bleeding wherever it may occur, and if the anemia is marked, stimulation of the bone marrow is indicated. The use of coagulants, such as calcium, gelatin,³⁰ peptone intramuscularly,¹⁰⁰ cobra and rattlesnake venom¹⁰⁵ and other drugs and sera, long advocated, is without any rationale and of no value, since it has been definitely established that this affection is a hereditary maldevelopment of the vascular apparatus. The administration of iron, arsenic, and liver extracts for the anemia is of value, and its use is, of course, purely symptomatic. Blood

ransfusion is of decided but only temporary benefit when the anemia is marked and the general condition becomes grave

The treatment must primarily be directed toward the destruction or removal, if possible, of the bleeding angiomata. In cases of epistaxis various forms of chemical^{20 44 55b 81a 108} and electrical^{14 15 22 34 63 70} cauterization have been employed, but with only slight or temporary improvement. The application of chromic acid bead and other forms of chemical cautery, such as trichloroacetic acid^{81a 108} and carbon dioxide snow,^{76 78} have proven successful in temporarily stopping the bleeding, but recurrence of hemorrhage has been the rule. The same holds true for cauterization by means of the electric needle. Occasionally cauterization has even been found to aggravate the bleeding.^{83 84} The use of the rubber bag inflation plug recommended by Hurst and Plummer⁸⁴ is of value as an emergency tamponade or preliminary to radiotherapy. Van Wagenen³⁶ reported favorably upon the use of thrombokinasin intranasally as a local hemostat. The application of an oil spray intranasally is of decided benefit in preventing hemorrhages and removing crusts.

The reports about the use of radium in this condition appear more promising. Paul⁴³ reported upon its use stating that the "epistaxis has been greatly

minimized." Mackay and McKenty⁵⁸ have applied it in two cases with apparent success. Hicks and Knox⁸² used it in one case and have reported an amelioration of symptoms, the bleeding having become "much less frequent and much less severe." Plummer⁸⁴ reported definite but only temporary improvement following its use. In our case the beneficial result following several radium applications was quite striking. We feel, therefore, that the use of radium in hereditary hemorrhagic telangiectasia is an invaluable asset in our therapeutic armamentarium, and to all indications may prove to be the treatment of choice in this affection.

Summary

1 A case of recurring epistaxis with multiple telangiectases in which radium treatment has shown a marked amelioration of symptoms is reported.

2 The finding of an unusual cardiac murmur is pointed out, and the possibility that it may be an inherent valvular developmental defect is suggested.

3 A historic resume of hereditary hemorrhagic telangiectasia is given, the salient pathological and clinical features are discussed, and the various therapeutic measures are briefly reviewed.

250 W 94 St

25 W 96 St

References

- 1 Babington B G *Lancet* 2 362, 1865
- 2 Wilson, E J *Cut Med and Dis of Skin*, 1869
- 3 Legg W *Lancet* 2 856 1876
- 4 Chiari O *Erfahrungen a d Gebiete der Hals und Nasenkrank*, pp 60-61 Toeplitz & Deuncke, Vienna 1887
- 5 Chaffard M A *Bull et mem Soc Med Hop de Paris* 13 352, 1896
- 6 Ullman K *Arch J Dermat u Syph*, 35 195, 1896
- 7 Rendu M *Gaz des Hop* 69 1322 1896
- 8 Osler, Sir Wm *Johns Hop Hosp Bull*, 12 333 1901
- 9 Guthrie L G *Lancet* 1 1243 1902
- 10 Josseland E *Bull Soc Med Hop de Lyon*, 1 244 1902
- 11 Kennan R H *Med Press and Circular*, 124 458 1902
- 12 Pearson H B A *Lancet* 1 91 1904
- 13 Hawthorne C O *Ibid*, 1 90, 1906
- 14 Kelly A B *Glasgow Med J* 65 411, 1906
- 15 Bligh Wm *Lancet* 1 506 1907
- 16 Weber Parkes F *Ibid* 2 160 1907
- 17 Gotthell W S *Tr 6th Internat Dermat Cong* 1 165, 1907
- 18 Osler Sir Wm *Quart J Med* 1 53 1907
- 19 Gossage, A M *Ibid* 1 337, 1908
- 20 Kelly, A B *Proc Roy Soc Med Laryng* Sec 1 44 1908
- 21 Phillips S (Semor) *Ibid* 1 45 1908
- 22 Kofler K *Wien klin Wchnschr* 21 570 1908
- 23 Waggett, E B *Proc Roy Soc Med Laryng Sec* 1 70 1908
- 24 Fox T C *Brit J Dermat* 20 145, 1908
- 25 Ballantyne, A J *Glasgow Med J* 70 256, 1908
- 26 Hanes, F M *Johns Hop Hosp Bul*, 20 63 1909
- 27 Romme, R *Press Med* 17 293 and 430 1909
- 28 Lafont A *Ibid*, 17 763 1909
- 29 Lack, L J *Laryng* 24 185 1909
- 30 Hanes, F M *Am J Dermat & Genito Urin Dis* 13 249 1909
- 31 Adamson H G *Brit J Dermat*, 21 219 1909
- 32 Aulken J *Lancet*, 2 444 1909
- 33 Langmead F *Proc Roy Soc Med Clin Sec* 3 109 1910
- 34 Osler Sir Wm *Riforma med* 27 57 1911
- 35 Audry J *Rev de med* 31 22 1911
- 36 Van Wagenen C D *Med Record* 81 109 1912
- 37 Sequeira J H *Proc Roy Soc Med Dermat Sec* 6 128, 1913
- 38 Gressing E *Hospitalstid* 8 1151 1915
- 39 Hutchison R and Oliver W J *Quart J Med* 9 67 1916
- 40 Gressing E *Dermat Ztschr* 23 193, 1916
- 41 Steiner, W R *Tr Am Climat & Clin Assn*, 32 77 1916
- 42 Arch Int Med 19 194 1917

- 42 Richardson, H. B. *Am J M Sc*, 154 95, 1917
 43 Paul, S. N. *Brit J Dermat*, 30 27, 1918
 44 Gundrum, F. I. *Calif St J Med*, 17 78, 1919
 45 Libman, E. and Ottenberg, R. *Hereditary Hemoptysis, Contributions to Med & Biol Research*, Sir Wm Osler, 1 632, 1919
 46 Goldstein, H. I. *Arch Int Med*, 27 102 1921
 47 Freudenthal, W. *New York Med J* 113 425, 1921
 48 Miller, J. W. *Laryng* 33 365, 1923
 49 Henie K. *Arch f Dermat u Syph*, 143 461, 1923
 50 Libman, E. and Ottenberg, R. *J.A.M.A.*, 81 2030, 1923
 51 Fitz-Hugh, Thos Jr. *Am J M Sc* 166 884, 1923
 52 Weber, Parkes F. *Brit J Child Dis* 21 198, 1924
 53 Arrak, A. *Deutsch Arch f klin med*, 147 287 1925
 54 Feldman, S. *Arch Dermat & Syph*, 12 522, 1925
 55 Schwartz, V. J. *Laryng* 35 573, 1925 *Minnesota Med*, 8 551, 1925
 56 East, C. F. T. *Lancet* 1 332 1926
 57 Williams Chas M. *Arch Dermat & Syph* 14 1, 1926
 58 Mackay, H. & McKenty, F. D. *Can Med J*, 17 65, 1927
 59 Mekie, E. C. *Brit Med J* 1 423 1927
 60 Stryker, G. V. *Arch Dermat & Syph*, 15 211, 1927
 61 McKinerty, W. K. *St Barth Hosp J*, 34 136, 1927
 62 Ralph, J. *Boston Med J*, 197 1177, 1927
 63 Dore, S. E. *Brit J Dermat* 39 313, 1927
 64 Foggie, W. E. *Edinburgh Med J* 35 281, 1928
 65 Thompson, A. P. and Lamb F. W. M. *Birmingham Med Rev* 3 259 1928
 66 Roles F. C. *St Barth Hosp J* 36 19, 1928
 67 Curtiss, F. *Klin Wchnschr* 2 2141, 1928
 68 Flandin Ch. and Soulie P. *Bull et mem Soc med Hop d Paris*, 52 1781 1928
 69 Erdheim S. *Brit J Dermat* 41 55, 1929
 70 Harper R. A. J. *Newcastle Med J*, 9 182, 1929
 71 Edel, K., van Gilse, P. H. G., and Postman C. *Acta Oto-Laryng*, 13 525 1929
 72 Schoen R. *Deutsch Arch f klin med*, 166 156 1930
 72 Goldstein, H. I. *Internat Clin* 3 148 1930
 73 Foldvari, F. *Zentralblat f hant u Geschlechtskr* 35 388, 1930
 74 Boston, N. L. *Am J M Sc* 180 798 1930
 75 Fitz Hugh, Thos Jr. *Ibid* 181 261 1931
 76 Levy Robert J. *La Medecine* 12.234 1931
 77 Kenedy *Dermat Wchnschr*, 92 955, 1931
 78 Aubertin, Ch. and Levy, R. J. *Bull. et mem. Soc Med Hop Paris*, 55 1327, 1931
 79 Ullmann, K. *Monatschr f Ohrenh.*, 65 1147 1931
 80 Goldstein, H. I. *Arch Int Med*, 48 836, 1931.
 81 Reimiger, A. *Wien med Wchnschr*, 81 1599 and 1681, 1931
 82 Hicks, H. M. and Knox M. *New York St. J Med*, 31 687, 1931
 83 Schmitt, H. *Ztschr f Laryng Rhin. Otol.*, 22 28, 1931
 84 Hurst, A. F., Hampson, A. G., Plummer, A. S., and Yates, A. G. *Gwy's Hosp Rep*, 82 81, 1932
 85 Grey, H. *Arch Dermat & Syph*, 25 171, 1932
 86 Rosenthal F. and Unna, P. *Dermat. Wchnschr* 94 599, 1932
 87 Goldstein H. I. *Arch Dermat & Syph* 26 282, 1932
 88 Milbradt, W. *Arch f Dermat*, 166 34 1932
 89 Larrabee, R. C. and Littman, D. *New Eng. J Med*, 207 1177, 1932
 90 Goldstein, N. I. *Am Tr Therapeut Soc* 32 47, 1932
 91 Torrigiani *Arch Ital di Otol*, 44.28 1931.
 92 Aubertin, Ch., Levy, R., and Mme. Badestre *Presse Med*, 41 185, 1933
 93 Piskiewicz, F. J. *Arch Otolaryng*, 17 429 1933
 94 Richter, W. *Dermat Ztschr* 66 137, 1931.
 95 Wittkower, E. Y. and Rarey, B. *Ztschr f klin med* 124 41, 1933
 96 Scarff, G. R. *Bristol Med-Chir J*, 50 114, 1930
 97 Perin, M. L. and Langlois L. *Bull. Soc Franc de Dermat et Syph*, 40 846, 1933
 98 Mounier-Kuhn, F. *Lyon med*, 151 760, 1933.
 99 Rosenthal F. and Unna, P. *Klin Wchnschr.* 12 865, 1933
 100 Ullmann K. *Urol & Cut Rev* 37 619, 1933.
 101 Meikle, G. J. *Lancet* 2 863 1933
 102 van Bogaert L. *Bull et mem. soc med & Hop d Paris*, 57 1572, 1933
 103 Jauernack, A. *Ztschr f Laryng Rhinotol.* 25 38 1934
 104 Goldstein H. I. *Internat clin* 2 43 1934
 105 Houser K. *Ann Otol Rhin & Laryng*, 43 731, 1934
 106 Yde, A. and Olesen, M. *Hospitand.* 77 1010 1934
 107 Adant M. *Rev belge sc med*, 6 665, 1934.
 108 Barmwater, K. *Ztschr f Laryng Rhin. Otol*, 25 287, 1934
 109 Adant, M. J. *de med de Paris*, 55 32 1933
 110 Wertheim L. *Handbuch der Haut u Geschlechtskr* Jadossohn 463-464 122 430 1932
 111 Cordier, V., Lageze, P. and Mounier-Kuhn, P. L. *Lyon med* 156 51 1935

LITTLE KNOWN FACTS ABOUT INHERITANCE

Racial coloring is inherited as a "dilution" character. There is no possibility of a "throw-back" to a pure black as popularly supposed.

As the geneticist understands inheritance a bacterially-caused disease is never inherited. Syphilis may infect the embryo or fetus and the child may be born syphilitic. Tuberculosis may infect the child at or immediately after birth. In neither case, however, is this inheritance.

Skin patterns, that is, fingerprints, hair whorls, etc., are inherited probably as "mosaic" patterns.

Blood groups are inherited apparently in a Mendelian or unit-character fashion.

In human cells, notably those of the salivary glands, the "genes" or carriers of unit characters within the chromosomes

have actually been seen.

Geneticists believe that hereditary factors are the most important ones in the cause of cancer. Yet the person does not inherit cancer. He inherits characters which pre-dispose toward tumor formation, toward certain types of tumors and toward tumors arising in certain organs. Without these inherited characters true tumors will never develop. With them a myriad of intrinsic causes will incite to the beginning of tumors, malignant or otherwise.

Body-build, constitution etc while inherited, are probably transmitted through the endocrine system.

Form, texture of teeth, jaw-size are all inherited, but not always from the same forebear, which probably accounts for most malocclusions.—*Illinois Medical Journal*

VASOMOTOR RHINITIS

C STEWART NASH, M D , *Rochester*

Rhinitis is fundamentally a disease of civilization, infrequent and simple in atavistic races but increasingly frequent and complex as a social system develops

Animals in their native haunts are seldom the victims of nasal catarrh, but captive and domestic animals are "A hundred years ago Rarotonga was a flourishing heathen country where cannibalism was the fashion, murder of shipwrecked sailors a common custom, and raids upon neighboring islands the chief diversion. Today, no longer cannibal, no longer warlike, but hospitable, it has learned to wear white man's clothes, to eat white man's food, to catch white man's colds and die of chest diseases" Less ferocious, but no less affected is Tahiti, and both by the introduction of factors making them more susceptible to rhinitis have become so involved in its complications that racially they are doomed to extinction

Stefansson lived with the Arctic Eskimos for nine years without encountering colds. When provisions were supplied from civilization, however, rhinitis became common. Certain groups of Japanese peasants whose chief food consists of fish and sea plants are noticeably more immune to rhinitis than their inland neighbors. Is civilized man responsible for this disease? Is there something lacking in the artificial environment of society that the primitive peoples formerly possessed?

We recognize that a rhinitis may be infectious or noninfectious, and we assert that both these conditions are infrequent in primitive races but common in modern man. We further maintain that this holds true whether the individual lives in the polar regions and clothes himself in furs or dwells in the tropics and exposes his body to the sun. Civilization apparently brings with it a susceptibility to rhinitis, and the more specialized society becomes, the more complex the rhinitis. If this assertion applied to infectious

types only, it might be contended that civilization in its effort to help uncivilized peoples directly infected them, but vasomotor rhinitis, infrequent among savages and prevalent in modern civilization, is not contagious. Infection does not appear to be the sole explanation.

Civilization implies refinement, a highly organized society, individual adjustments, and competition. The result of this is the reclamation of the race from savagery, the one thing which apparently protects it from rhinitis. Savagery implies brutality, cruelty, and ferocity, which may or may not be protecting agents against nasal catarrh, but it also implies primitive food and natural habits of living. If the savage traits are the protecting agents, then the immunizing factor is probably adrenalin, their common denominator. But how does the savage acquire this extra adrenalin or the stimulus to produce it?

The barbarian eats meat, raw and cooked, he prefers the nonmuscular portions, particularly the liver, adrenals, and kidneys, he recognizes blood as an essential part of his diet, the fibrin being cooked and the defibrinated portion divided sparingly among the group. Milk, preferably from animals grazing in green pastures, green vegetables, particularly sea weeds, and an abundance of fish are considered essential constituents of the tribesman's diet, and he thrives on it. He also leads a simple social existence. Something protects him against rhinitis.

Civilization, on the other hand, gives us polished rice, branless wheat flour, refined sugar, highly specialized cereals, an appetite for muscular meat rather than the endocrine bodies, and the flesh of castrated animals in which the transfer of animal vigor into the human is sacrificed. Milk is produced for its quantity or fat content and not according to the amount of organic iodine, phosphorus, and other minerals that it might contain, and

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then in addition it is pasteurized Pastries, confections, and starches complicate the menu Vegetables are raised for size and appearance and not their mineral content, and sea weeds, nature's own formula, are infrequent items of diet Our contempt for raw meat and blood may be well-founded parasitically but the savage has great faith in their virtues Civilized man leads a complex social existence Something makes him susceptible to rhinitis

Rhinitis is an inflammation of the nasal mucous membrane, primarily infectious or primarily noninfectious The noninfectious type may become secondarily infected and any or all sinus membranes may simulate or complicate the nasal inflammatory process A long continuance of either of these types results in mucous membrane changes which, by the character of the alteration, identify them as chronic forms of rhinitis, namely the hypertrophies, the hyperplasias, the polyposes, etc These, however, are not the direct result of one's habits of living but the sequelae of a pre-existing rhinitis

This paper recognizes the association between civilization and the frequency of infectious rhinitis, but will limit itself to the noninfectious or vasomotor type

Dorland defines vasomotor as "presiding over the movements of the walls of the blood vessels, that is, their contraction or expansion, or any agent or nerve that effects vasomotion" Noninfectious or vasomotor rhinitis, then, is a pathological condition produced by some agent which causes the vessels of the nasal mucosa either to abnormally constrict or abnormally dilate By definition, then, the term vasomotor rhinitis cannot be used synonymously with nasal allergy or allergic vasomotor rhinitis which is fundamentally a vasodilator disease, but it must also include the vasoconstrictor diseases such as atrophic rhinitis, rhinitis sicca, and ozena, which have been classified as a Raynaud's disease of the nose

We shall further limit this paper to a study of the vasodilator form of rhinitis The exciting cause of this disease is understood, it is a substance inhaled or ingested which is irritating to the nasal mucosa Why certain substances are violently irritating to one individual and apparently nonirritating to another, or why the same membrane may after years

of normality become highly sensitive, has not been satisfactorily explained The hereditary factor is an observation, not an explanation In any case, some irritating agent produces a hyperfunction of the mucosa, and whether the reaction is mild or violent determines its nomenclature but not its basic etiology Probably the simplest form of noninfectious rhinitis is the onion irritation, its cause is obvious, its cure simple Similarly we could classify wood smoke and chemical inhalants The food irritant, however, is less obvious but no less important Violent reactions, caused by such allergins as fish or cocoa nut, produce symptoms anyone can interpret, but lesser vasodilator reactions, perhaps complicated by a secondary infectious process, present real problems that have to be detected

Excessive candy eaters often have a vasodilator rhinitis One such individual, a girl of nine years, was treated for six and a half years by a rhinologist for sinusitis without material benefit Total abstinence from candy relieved all symptoms and she has been well for four years In other instances, large quantities of white bread eaten over an extended period of time produced the same condition Irish potatoes, macaroni, citrus fruits in overabundance, will occasionally result in a vasodilator rhinitis Even the nasal catarrhs are often traceable to these causes It is possible, of course, that specific allergins may have produced these reactions

There is within a few miles of the city of Rochester (New York) an experimental farm on which are raised vegetable food stuffs and various animals such as horses, cows, pigs, sheep, and dogs Although most of the animals are herbivorous, rhinitis (which is only an incidental observation) can be produced by overstepping the animal threshold of tolerance for starches and sugars Conversely, the rhinitis can be relieved by their control or by raising the threshold of tolerance by the ingestion of organic and inorganic minerals in superabundance Such an experimental farm is unnecessary for our purpose, however, for the rhinologist's and allergist's offices provide better experimental laboratories

The most complicated form of the noninfectious type is the allergic vasomotor

rhinitis. Animals and primitive races do not suffer from such allergins as orris powder, soaps, or wheat flour, for obvious reasons. But why is it that hay fever, so common in this country, is less common among the uncivilized? The pollens are certainly present in the tropical regions.

With these thoughts in mind, how should a vasodilator rhinitis be managed? Briefly, we suggest the following:

1 Study the mucous membrane, particularly as to color. Jarvis has contributed much to the solution of this problem and his studies on nasal mucosae should be familiar to every rhinologist.

2 Assume that all rhinorrheas are vasodilator in origin until proved otherwise.

3 Bear in mind that an infectious rhinitis may occur in a susceptible membrane and anything done to increase resistance is good therapy anyway.

4 In long-standing cases, treat the complications only long enough to give the patient symptomatic relief. Recognize the fact that you are treating the complication and not the disease.

5 Attempt to remove the exciting cause. In this the allergist is both a comfort and a disappointment, but a common understanding between him and the rhinologist is a distinct aid to the patient. Pollens, common inhalant irritants, and common food susceptibilities are readily detected and may be treated by exclusion, desensitization, etc.

6 Relieve the patient. In the complex forms, that is, the allergic vasomotor rhinitis, this is particularly important. Local applications of adrenalin, ephedrin, and cocaine give temporary relief, other topical measures, in my experience, make the patient worse. Hay fever, if not controlled by pollen desensitization, change of environment, or some other procedure which works sporadically, has either to be endured or treated heroically. Warwick's method of ionization may be heroic, but in uncomplicated fully developed hay fever it does produce, in a significant percentage of instances, satisfactory results. The use of concentrated silver nitrate or carbolic acid on the mucosa is too indelicate for my nature. In the perennial type, I have employed cauterization of the sphenopalatine ganglion and obtained satisfactory results in a large number of cases. Drug therapy is occasionally effective. Ephedrin, atropine, or amytol and ephedrin, adrenalin, or calcium may be used. In the less acute cases it is my experience that dilute nitrohydrochloric acid is often effective.

7 Obviously, a noninfectious vasodilator rhinitis is caused by some irritant. Not so obvious is the fact that underlying this is something which controls one's susceptibility to these irritants. That something is apparently present to protect the atavistic types but disappears as civilization develops. The unproved assumption is that man in his effort to make life more abundant has lost nature's protection against rhinitis and, furthermore, that he is apparently insulting his nasal mucosa by overstepping its threshold of tolerance for certain types of food which in their unrefined forms could not be taken in such quantity as to produce this condition. Management of all cases should be carried out with this in mind. Elimination diets and experimental adjustments in social stabilization should be tried in an effort to restore nature's immunity against rhinitis.

Conclusions

1 Vasomotor rhinitis is primarily a noninfectious disease which may become secondarily infected.

2 The term vasomotor rhinitis properly employed includes both vasoconstrictor and vasodilator diseases and therefore cannot be used synonymously with allergic vasomotor rhinitis.

3 The following assumptions are made:

a Vasodilator rhinitis is frequent among civilized peoples.

b Vasodilator rhinitis is infrequent among primitive peoples.

c All factors considered, it seems probable that organized society in its process of development has removed from its food certain elements which contain some of nature's protection against rhinitis, or perhaps society itself is a factor. In any case, the primitive races still have this protection.

d An effort should be made to find out what is wrong in the patient's habits of living and change it, and further to correct any abuse to his membranes from an overabundance of untolerated food.

4 Routine symptomatic treatment of this disease should be continued but supplemented by experimental procedures.

5 The purpose of this paper is not to promote any one theory as to the cause of vasomotor rhinitis but to encourage further studies in the biologic, psychic, and social aspects of that disease.

ACUTE OBSTRUCTION OF THE CENTRAL RETINAL ARTERY

Relieved by Intravenous Sodium Nitrite

BENJAMIN ESTERMAN M D, *New York City*

Sudden total blindness in one eye due to obstruction of the central retinal artery is almost always sufficiently terrifying to send the patient to the nearest physician without delay

The usually accepted forms of treatment for this have been inhalations of amyl-nitrite, vigorous massage of the eyeball, and as a last resort, paracentesis of the anterior chamber or some variation of this such as iridectomy or sclerotomy, in an attempt to restore circulation by the sudden diminution in intraocular tension. Potassium and sodium tartrate has also been employed to gain this end by dehydration, and in later stages potassium iodide has been used to promote absorption of clots, usually too late to restore useful sight

Pilocarpine¹ or dionin² or the two combined have been instilled into the conjunctival sac in attempts to increase circulation, and one worker reported a good result following retrobulbar injections of 0.3 to one c.c. of 0.1 per cent atropine sulphate in a case which was probably due to angiospasm³

More recently, reports have been published of the use of acetyl-choline as a retinal vasodilator^{4, 5} and Orr and Young⁶ (1935) reported marked success from the injection of acetyl-choline subconjunctivally in two cases, in one of which an embolism was definitely seen to be dislodged

The neurosurgeon Pieri⁷ has reported favorable results in recurrent retinal angiospasm after section of the cervical sympathetic in four cases, one of which he was able to follow for two years without a recurrence

The following is a report of a case in which sodium nitrite* solution was injected intravenously to cause marked

vasodilatation with restoration of retinal circulation in a few minutes and normal vision within the hour

Case Report

F E, male, aged forty-two, was admitted to the service of Dr Knapp at the Herman Knapp Memorial Eye Hospital on Oct. 21, 1934 with a complaint of sudden loss of vision in the left eye fifteen minutes previously. He had already been to the emergency room at the Roosevelt Hospital where he had been given amyl nitrite inhalation with no effect

The right eye was normal. The left eye had barely light perception, light projection was absent. The pupil was moderately dilated and scarcely reacted to direct light. Ophthalmoscopic examination showed an occlusion of the central retinal artery, whose branches on the retina were narrowed and empty except for occasional bits of blood column moving in a reverse direction. The veins were normal. The retina proper had the grayish-pink color of beginning edema with the macula a brighter color, the forerunner of the cherry-red spot to come. Intraocular tension was normal and blood pressure 144/96

There was no history of previous visual disturbance, nor was there evidence of cardiac or venereal disease or blood dyscrasia.

Another inhalation of amyl nitrite was given and vigorous massage of the globe was started, without much success or change in the ophthalmoscopic picture

A few minutes later 200 mgm of Nitroscleran (Tosse) was given intravenously. (This was more than the usual dose, but given in this case because the man was unusually large and well-built in the ordinary sized person one should give 150 or 100

*The solution used is marketed by Tosse under the name Nitroscleran and contains in ampules, Sod. chloride 0.6%, di-sod. phosphate 0.35%, di-potass phosphate 0.2%, Sod nitrite 10.0%. Each ampule contains one c.c. of solution

(mgm.) Within three minutes the patient began to feel the symptoms of mild shock, and blood pressure dropped to 80/60. Immediate ophthalmoscopic examination showed all arteries to be filled and almost twice the normal caliber, with retinal edema and macular blush gone.

After a short rest period, vision was found to be 20/20+ in the affected eye with a normal peripheral field. Blood pressure had returned to 110/74, and the patient was given nitroglycerin tablets gr 1/100 (0.6 mgm.) to take every four hours and allowed to go home.

He was observed daily for three months with no return of the ocular symptoms except that on two occasions small superficial boat-shaped hemorrhages with clear centers appeared not far from the disk and each was resorbed in about ten days—leading to the suspicion that the original attack might have been true embolism instead of angiospasm. However, all relevant medical and laboratory examinations were negative. In June 1935 the patient ceased coming to the clinic and we are assuming that had there been a recurrence he would have returned.

It should be remembered that there are undoubtedly cases of retinal vascular obstruction (if due to angiospasm) which clear up spontaneously. However, the damage to retinal tissue from ischemia makes it imperative that retinal circulation be restored as soon as possible, even if this means surgical intervention.

The treatment by intravenous sodium nitrite in this type of case is rational because

1. Where, as described above, both amyl nitrite and massage fail, this treatment may enable us to avoid an operation,

2. Even though it is usually impossible by ophthalmoscopic examination to distinguish between obstruction due to embolism and that due to spasm, a powerful vasodilator is indicated in either case—to counteract the

spasm or to enable the embolus to lodge further along in the arterial tree where it will do less damage,

3. Nitrocleran is apparently safe. It has been used for a number of years, especially abroad, in treating vascular hypertension. In 1930 Pfimlin¹ reported fifteen cases who had been given small doses (20–40 mg.) intravenously twice weekly, a total of 177 injections without mishap, in the treatment of tobacco amblyopia. Similarly Duggan² in a very careful study, reports a total of 324 injections in thirty-four patients with tobacco amblyopia (100 mg. doses intravenously, daily or every other day) without mishap.

4. While it is felt that subconjunctival injection of acetyl-choline³ is probably a better method because it is given locally, probably the only ones who will use this will be ophthalmologists. Not many general practitioners will risk giving subconjunctival injections. On the other hand, where the treatment can be given intravenously, it can be administered by the general physician as soon as the diagnosis is established, thus saving valuable time.

A case of occlusion of the central retinal artery is presented, which the author had the unusually good fortune to see within fifteen minutes of onset. Intravenous sodium nitrite is offered as a quick and safe means of overcoming this condition by the general practitioner, where time is an important factor, and where an ophthalmologist may not be readily available.

515 PARK AVE.

References

1. Young *Brit Med Jour*, p 316, Feb 25, 1933, and p 878, Nov 12, 1932.
2. Werner *Trans Oph Soc U King* 51 654 1931.
3. Tichomiroff *Soviet Vest Oftal* 1 98, 1932.
4. Pohoryles *Rassegna Ital d'ottal*, 3 794, 1935.
5. Redsiob *Bull Soc d'Ophth de Paris* 3 143, 1930.
6. Orr and Young *Brit Med Jour*, 1 1119, 1935.
7. Picri *Arch Ital di chir* 31 581 1932.
8. Pfimlin *Klin Monatsbl f Augenh* 85 787, 1930.
9. Duggan *Arch of Ophth*, 13 1059, 1935.

TO SHOW WHAT IS 'ON FOOT'

In the lobby window in the Annex Building of Marshall Field and Company is an exhibit on "feet" designed to show that foot disorders are frequently traced to systemic diseases and emphasizing that the family physician should be consulted before any corrective measures are introduced, says the *Illinois Medical Journal*. Models are displayed to show that a shoe should be

made to fit the foot rather than the foot to fit the shoe. There is also a model in plaster of the perfect foot of a child. This window has been given to the Chicago Medical Society, free of rental and service charges, for the display of health educational material. The material is prepared by the educational committee of the Illinois State Medical Society.

TREATMENT OF PSORIASIS BY COLLOIDAL MANGANESE

Review of Literature and a Report of Seventy-Two Cases

HENRY D NILES, M.D., *New York City*

From the Skin and Cancer Unit, New York Post Graduate Medical School and Hospital, Columbia University

Colloidal manganese was first used in the treatment of psoriasis in 1922 by James Moore¹. He had two patients with chronic staphylococcus infection and marked psoriasis in both of whom the psoriasis improved greatly after six injections of staphylococcus vaccine, but showed no response to six more. Because of the early response to the vaccine and on account of the reports of the beneficial effect of manganese on staphylococcus infections, Moore then treated these patients with colloidal manganese. One was entirely well after four injections and the other after eight. He later treated a total of thirty-five psoriatic patients with colloidal manganese. He gave two doses of one-half c.c. each, intramuscularly at four day intervals and then one c.c. weekly until the eruption disappeared. His conclusions were as follows:

Psoriasis is improved, although not completely cured, by staphylococcus vaccine but it may be cured by six to sixteen intramuscular injections of colloidal manganese without any local treatment, because of the action of staphylococcus vaccine and especially colloidal manganese and on account of its resemblance to a chronic staphylococcus infection, psoriasis may be due to a special staphylococcus.

Although one may not agree with Moore's conclusions, according to his theory, his use of manganese for psoriasis was logical.

The next report on the treatment of psoriasis with colloidal manganese was made by Richter^{2a} in June 1930, before the Berlin Dermatological Society. He used a preparation called psorimangan. This was given intramuscularly twice a week in doses of one c.c., gradually increasing to four c.c., for a total of ten

to sixteen injections. He treated twenty six patients without any local applications and obtained excellent results in twenty. He considered that the poor results in the other six patients were due to too small dosage, necessitated by the sensitivity of these patients to the drug.

At a later meeting of the same society, Richter^{2b} presented a patient with extensive psoriasis of fifteen years' duration who was cured with manganese. He also mentioned another case in which complete healing occurred six weeks after stopping the injections, although they appeared to have no effect during the course of treatment. For six years, this patient had been treated unsuccessfully with many other methods. In the discussion, Pinkus stated that many times the results with manganese are very good and also many times completely negative. He obtained the same results with different preparations and they were all well-tolerated, but recurrences appeared early and frequently. Langer reported fifteen cases in which he had good results, especially when the injections were combined with ultra-violet radiation.

Schmidt's³ results and conclusions were very different from those of Moore and Richter. He treated eleven patients with a total of fifteen to twenty injections of psorimangan but none were cured until after the addition of local therapy. The drug was given intramuscularly twice a week, starting with one c.c. and increasing the dose to three to four c.c. after four or five injections. Very severe general reactions and marked local pain occurred with both low and high doses. The only favorable effect was paling in the centers of the lesions and the injections did not prevent rapid recurrences. The

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lesions did, however respond more rapidly to salves containing chrysarobin after the injections than they had before. Schmidt thought that the increased oxidation, which has been found to be caused by manganese, might have made the lesions more sensitive to chrysarobin or that the manganese might have acted as a foreign body or fever therapy, through an inflammatory process and an absorption of destroyed body protein. On account of the absence of any marked favorable effect, and because of the severe general reactions and local pain, Schmidt concluded that colloidal manganese, in its present form and dosage, was not suitable for the treatment of psoriasis and had no advantage over chrysarobin, but that protracted treatment with small doses, alone or combined with local measures, or a different, less toxic, preparation might give better results.

Abramson⁴ at a meeting of the North German Dermatological Society in May 1931, reported on twenty patients to whom he had given bi-weekly almost entirely intramuscular injections of psorimangan. He started with doses of one c c and later used two to three c c. There were no reactions except occasional transient fever and some local pain. He found that the healing from the combined treatment with psorimangan and one-half per cent cinolin-vaseline was definitely quicker than with the salve alone and stated that up to that time, he had observed no failures in the combined treatment.

Two months later, Szego and Von Luka⁵ reported their results in twenty-seven patients who received twelve to sixteen intramuscular injections of the same drug in doses of one-half to two c c once or twice a week. They preferred the intramuscular injections to the intravenous because the latter caused febrile reactions which required hospitalization. All their patients also had local therapy. Sixteen were completely healed, and eight partly, the remaining three proved refractory. None were made worse and there were no new lesions. The healing effect began after six or eight injections and the time required for the disappearance of the lesions was two months less than with topical remedies alone. Nine months after stopping the treatment, there was no

recurrence in any of the sixteen who were completely healed, but there was a new eruption in two of the eight who were partly improved. In both patients, this disappeared after a few more injections. These authors concluded, "the comparatively great number of cures, as well as the absolute safety of the treatments, assures to psorimangan an important role in the battle against psoriasis."

Schwarz⁶ reported his experience with colloidal manganese in the treatment of a man with extensive psoriasis. In four weeks, this patient received nine intramuscular injections, starting with 0.5 c c and increasing every three days by 0.5 c c up to four c c. At the fourth injection, he complained of severe local pain, anorexia, fever, and weakness. A different lot of the drug was used, but, after four more injections, the treatment was stopped because of visual disturbances, obstipation, oliguria, hematuria, and severe local pain. All of these disappeared entirely two days later. The scales ceased forming and the skin became flat with only dark pigmentation remaining but there was an early recurrence. Schwarz admitted that the patient should have received at least sixteen injections, but he concluded that, on account of the severe general reactions, manganese was too dangerous to use in a benign condition like psoriasis.

Bolnstedt⁷ discussed the reason for the use of manganese in psoriasis. This rests on the investigations of Bloch, Meirowsky, Konigstein, and Van Kerchoff, who found a constant decrease in the oxidative function of the epithelial cells in the scales of the psoriasis papule. Van Kerchoff believed that this oxidational process could exist without an organic ferment. Von Herman found that treatment of psoriasis with manganese was followed by considerable increase in the residual ash of the skin and concluded that manganese was deposited in the skin. In five out of six cases through measurements of the anaerobic glycolysis, Warburg discovered a definite rise of lactic acid production after the intravenous administration of two c c of psorimangan. Because of these findings, Van Kerchoff, Pautrier, and Lauromier considered that colloidal manganese, acting as a catalytic agent, increases fermentative oxidative

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Bohnstedt⁷ discussed the reason for the use of manganese in psoriasis. This rests on the investigations of Bloch, Meirowsky, Konigstein, and Van Kerchoff, who found a constant decrease in the oxidative function of the epithelial cells in the scales of the psoriasis papule. Van Kerchoff believed that this oxidational process could exist without an organic ferment. Von Herman found that treatment of psoriasis with manganese was followed by considerable increase in the residual ash of the skin and concluded that manganese was deposited in the skin. In five out of six cases through measurements of the anaerobic glycolysis, Warburg discovered a definite rise of lactic acid production after the intravenous administration of two c.c. of psorimangan. Because of these findings, Van Kerchoff, Pautrier, and Lauromier considered that colloidal manganese, acting as a catalytic agent, increases fermentative oxidative

processes in the epithelial cells and thus helps disturbances of these in psoriasis.

Bohnstedt found the intramuscular injections too painful to continue but there were no ill effects, except a slight rise in temperature, from manganese given intravenously in doses of two c.c. twice a week for a total of ten to twenty injections. If improvement took place, it usually appeared after the eighth intravenous injection. If no improvement was noticed after twenty injections, treatment was discontinued. The final results were observed in thirty-one patients. Twenty-one of these received intravenous and ten, intramuscular injections. Eight patients (seven with intravenous and one with intramuscular injections) were cured, seven (four with intravenous and three with intramuscular injections) showed paling in the centers of the lesions, but no other change, six patients (five with intravenous and one with intramuscular injections) obtained no benefit. One patient was cured after one intravenous injection which caused such a severe reaction that the treatment was discontinued. In all of these patients, a five to ten per cent ammoniated mercury, or sulphur, salve was used locally. Nine (five with intramuscular, and four with intravenous injections, combined with the use of a cignolin or chrysarobin salve) had no better results than with the salve alone. Only one patient, who received intramuscular injections, showed essential shortening of the usual time required for the disappearance of the lesions with chrysarobin. In no patient was the appearance of recurrences delayed by the injections. Bohnstedt concluded that the results were not favorable.

Richter^{2c} reviewed the literature on the results of the treatment of psoriasis with manganese, and the experimental work and theories leading to its use in this condition. He thought that the superior results obtained by himself and others with intramuscular, compared with intravenous, injections might be due to a slow, continuous absorption from the intramuscular deposit, and that the different healing effects might be caused by the difference in surface tension of the coarse and fine forms of the colloid. In a series of cases, he confirmed the reports of other workers who obtained more favorable re-

sults with the combination of a new intramuscular preparation with intravenous injections. He stressed the fact that, as with arsenic, one must find the ideal dose for each individual patient. He concluded that manganese was a worth-while treatment of psoriasis and that it was good alone, but much shorter courses were required when it was combined with ordinary methods, and that milder local preparations could be used effectively in conjunction with it.

Fruend and Ravalico⁸ treated eighteen patients with intramuscular injections of manganese dioxide. Eleven were healed, three improved, and four remained unchanged. They obtained better and quicker response when the injections were combined with local therapy. The manganese so increased the sensitivity of the skin that good results followed the use of weak salves which were ordinarily ineffective. They used 0.2-0.5 per cent chrysarobin ointment or zinc oxide ointment containing ten per cent tar, and, in some severe cases, Sabourand's pyrogallol combined with arsenic internally.

Geyer and Wesener⁹ stated that the severe local pain from intramuscular injections of manganese, reported by earlier authors, had been greatly lessened by the addition of a local anesthetic, percan, but that high fever, eruptions, and visual disturbances continued to occur. As they had found that improvement in psoriasis usually appeared after three weeks with other methods, they observed their patients at this time. Of eighteen who received intramuscular injections, under three weeks, three were improved and two no better, over three weeks, eight were no better, four improved, in one, the result was unknown. They also treated eight patients intravenously. Five showed no improvement over three weeks, under three weeks one was improved and in two the result was not known. They gave an average of ten injections with a total of fifteen c.c. The injections were given every two days, the dose varying from 0.25 to two c.c. Salves (cignolin and ochrosilpaste) were also used. The reactions and fever were less severe with the intramuscular injections but these were all painful. They found no changes in the blood, or any renal damage. In some forms of psoriasis, there appeared to be

an acceleration in the healing. In general, however, this was no more rapid and there was no longer period of freedom from lesions than with other methods. They obtained somewhat better results with intramuscular, than with intravenous, injections. They considered the latter a complete failure. Their final conclusion was that manganese showed no advantages over other methods used in the treatment of psoriasis.

The two latest reports on the use of manganese in psoriasis come from this country, and are the only ones in the English language since the original article of Moore. They are both very enthusiastic over the results obtained with this method. Bowden¹⁰ gave injections of colloidal manganese to thirty-four patients with various types of psoriasis, for which they had received a large amount of previous treatment. The injections were given at first once, and later, twice a week. At first, one cc was given intravenously, later, two cc. The initial intramuscular dose of one-half cc was gradually increased to two cc. Sixteen to twenty-four, and occasionally thirty, intramuscular injections were given in two to three months. The majority of the patients showed decided improvement after the second or third injection. Several were completely well after only eight alternate intravenous and intramuscular injections. There were no reactions except fever from 102-104° F and occasionally slight headaches, and no evidence of metallic poisoning nor albuminuria. Twenty-seven of the thirty-four patients were completely cured, and the remaining seven were greatly improved. Three, who were not cured when the injections were stopped, were well after two months.

Barr¹¹ reported in detail on seven patients with psoriasis, treated with intravenous injections of a preparation containing twenty-nine mg of manganese chloride and 9.5 mg of calcium chloride in five c.c. of a physiological solution of sodium chloride. Five of these showed complete improvement and two partial improvement, without any local therapy. Three patients remained free from eruption for over a year after the injections were discontinued, the others had not returned for observation, or were still under treatment. There were no severe

reactions. He has used this preparation successfully for two years, and has given over one hundred intravenous injections with no reactions except a slight increase in the pulse rate, mild suffusion of the face, and a slight feeling of light-headedness, all of which lasted only a few seconds. These were no more marked than the reactions occurring after the intravenous injection of any colloid. In some patients who improved slowly, more marked improvement was obtained by decreasing the dose and increasing the intervals between treatments. None of his patients received any local therapy. Of ninety-five cases, sixty-eight per cent showed total improvement, twenty-one per cent partial, and 9.5 per cent no improvement. He concludes:

Its freedom from toxicity, the ease of administration, the rapidity of the disappearance of the lesions without any local therapy, places manganese chloride at the head of the list of preparations used in the treatment of psoriasis.

Results

From October 1933 to the present date (April 1936), seventy-two patients with psoriasis have been given weekly intramuscular injections of one cc of colloidal manganese. None received any additional treatment such as diet, internal medication or radiation,* and only sixteen, any active topical remedies. It was intended to give only a placebo ointment to all the patients but either through misunderstanding of this purpose on the part of some other member of the staff or through the insistence of the patient on a more rapid result, this was not possible in these sixteen patients. Although even an apparently inert ointment may have had some therapeutic effect, in order to obtain the patients' cooperation it was necessary to give some topical remedy. All but five in this series were seen at the New York

*Two patients were given the injections during a course of x-ray therapy. They have been included in the group of those who improved because in one, the usual recurrence after radiation was delayed several months and was much milder than ever before, in the other, the amount of radiation required to effect a complete disappearance of the lesions was definitely decreased.

Post-Graduate Hospital Dermatological Clinic or at the Skin and Cancer Unit of the New York Post Graduate Medical School and Hospital. There were thirty-eight men and thirty-four women. Most of these patients had severe generalized psoriasis of many years' duration and had received much and varied treatment with only temporary or no improvement. These seventy-two patients received a total of 696 injections with an average of 9.68 injections per patient. Thirty-four improved (disappearance or fading of some of lesions), thirty-three showed no improvement, and in five the result was not determined. Those who improved received 382 injections with an average of 11.24 per patient, those who showed no improvement, 296 injections with an average of 9.0, and those in whom the result was not determined, eighteen with an average of 3.6. The small average number of injections in the last group is due to the fact that these patients left the clinic before the result could be determined and have not responded to requests to return for observation or they have only recently started the treatment. The difference between the average number of injections received by the patients who improved and those who showed no improvement is largely due to the fact that several of those of the latter group who failed to improve at first became discouraged and refused to continue the treatment. In the group of thirty-four patients who were regarded as improved, only two (in one the eruption was limited to a palm-sized patch on each knee) were completely cured and one who was entirely well had a recurrence three months later. Eight others who showed considerable, but not complete, improvement also had a recurrence. The remaining twenty-three showed varying degrees of improvement but were far from completely cured. Six of these are still under treatment. Eight of the patients in whom the final result was unsatisfactory showed some improvement at first but this did not continue or there was a recurrence. In one patient, the scaling was controlled by a salve containing ten per cent ammoniated mercury and five per cent salicylic acid and in another by boric acid ointment, but in both, when the salve was stopped, the scaling recurred even during

the injections. Of the total number of seventy-two patients, fifty-two received no topical remedy except boric acid ointment, eleven used an active salve (chrysarobin, or ammoniated mercury alone or with salicylic acid in various strengths), five an active salve during part of the time and boric acid ointment during the remainder, and four no external applications of any kind. Twenty-four of the first group, two of the second, and four in each of the last two groups were improved. It can be seen that, in this series, the injections did not reinforce the effect of active topical remedies as the results were worst in the group of patients who were inadvertently given these in addition to the injections. This is contrary to the findings of several of the authors previously quoted who reported the best results from the combined treatment. Four patients received manganese butyrate instead of the colloidal form. Two were no better (one even with the addition of chrysarobin ointment), one improved without any salve, and one improved while using an active salve during the injections but the eruption recurred.

Several interesting phenomena, some of which have not been mentioned in other reports, were observed during this treatment. For some unexplained reason, in almost all of the patients the lesions on the trunk responded better than those on the extremities, and those on the face and scalp were most resistant. In a few patients, the lesions on the trunk and extremities had practically, or entirely disappeared, while those on the face and scalp remained unchanged. This required the use of active topical applications on these areas to obtain the patients' consent to continue the injections. In some, as one intelligent patient expressed it himself, the eruption appeared to be "driven" from the trunk to the extremities. Another finding which is difficult to explain, was that in a few patients new lesions appeared during the injections even while the old ones were fading. In others, although no new lesions appeared the old ones became worse while still under treatment. In most patients who improved, as has been frequently previously reported, the patches first cleared in the centers and the edges were much more resistant to treatment and in several

cases never completely disappeared. Two patients in this series had a linear type of psoriasis limited to one side. One of these failed entirely to respond to treatment, the other showed only slight improvement at the beginning but no further progress after a total of ten injections. In three patients who stopped the injections before

turbance. One patient had edema of the ankles for three weeks, after only one injection. In one, a mild, itchy, red, papular dermatitis of the face and neck, the cause of which could not be determined, appeared following the fourteenth injection. This disappeared in one week and the injections were continued without

TABLE I
RESULTS OF VARIOUS AUTHORS WITH COLLOIDAL MANGANESE IN TREATMENT OF PSORIASIS

Author	No of pts	Drug	Dosage	No of admin- strations	Mode of therapy	Local therapy	Reactions	Results	Conclusion
Moore	37	Colloidal manganese	1 c.c.	6-16	Intrm weekly	None	None mentioned	All cured	Favorable
Richter	26	Colloidal manganese	1-4 c.c.	10-16	Intrm. twice a week	None	Slight fever and local pain	Excellent in 20	Very favorable
Schmidt	11	Psoriman-gan	1-4 c.c.	15-20	Intrm. twice a week	Chrysa-robin	Very severe	No cures with injs alone	Very unfavorable
Abramson	20	Psoriman-gan	1-3 c.c.		Twice a wk. mostly intrm.	1% cignolin vaseline	No severe	100% cures with combined treatment	Very favorable
Szego and Von Luka	27	Psoriman-gan	1-2 c.c.	12-16	Intrm. once or twice a week	Yes	None	16 completely cured 8 partly 3 not improved	Very favorable
Bohnstedt	21	Psoriman-gan	2 c.c.	10-20	21 intrv 10 intrm. twice a week	Yes various types	Very slight from intrv	9 cured (8 intrv & 1 intrm) 7 imprv'd (4 intrv & 3 intrm) 6 not imprv'd 9 (4 intrv & 5 intrm.) with chrysa-robin salve no better than with salve alone 11 healed 3 imprv'd 4 unchanged	Unfavorable
Freund and Ravalico Geyer and Weisner	18	Psoriman-gan			Intrm.	Yes			Favorable
	26	Psoriman-gan	0.25-2 c.c.	Average 10	18 intrv 8 intrv every two days	Cignolin & ochrosil-paste	Yes	Intrm 7 imprv'd 1 (?) 10 no improvement. Intrv 1 imprv'd 2 (?) 5 not imprv'd 27 entirely well 7 greatly improved	Unfavorable
Bowden	34	Colloidal manganese	1-2 c.c.	16-30	Intrv & Intrm. once to twice a week	None	Slight fever headache		Very favorable
Barr	95	Manganese chloride	29 mg		Intrv		No severe	68% total improvement 21% partial improvement 9 3/4% no improvement 34 imprv'd 33 no improvement, 5 result unknown	Very favorable
Niles	72	Colloidal manganese	1 c.c.	Average 9.68	Intrm weekly	None	Nil		Unfavorable

complete cure, improvement continued with no other treatment except the use of boric acid ointment. In one patient, the complete disappearance of the eruption under treatment was followed by leukoderma psoriaticum at the sites of all former lesions.

As a rule, the treatment was well-tolerated except for occasional slight local pain at the site of the injection. There were no severe reactions of any kind. In one patient, the injections were followed by anorexia and insomnia and in two, they were stopped because of gastric dis-

any ill effect. Another patient had a generalized, itchy, fine papular eruption after the fifth injection. She stopped treatment because of the itching and an aggravation of her psoriasis. One patient had a severe loss of hair after four injections. This gradually ceased after stopping treatment.

Comment

As was mentioned in the review of the literature, because of its stimulating effect on oxidation in the epithelial cells, theo-

retically, manganese should be of value in the treatment of psoriasis but, unfortunately, this did not prove to be the case in this series of patients. On account of the apparent logic of manganese therapy and the inadequacy of our present treatment of this disease, I started this work in October 1933. At this time, there were several very favorable, as well as unfavorable, reports in the German literature but none in the American. Although my results were more satisfactory than those of some of the authors quoted, they were not nearly as good as those of several others and fell far short of the glowing reports of the manufacturers of the drug. It is difficult to reconcile the contradictory reports of several authors using the same drug in approximately the same manner. My poor results may have been due to the use of only intramuscular, and no intravenous injections, too small doses, weekly, instead of bi-weekly, treatments, and, in most patients, the application of only a placebo salve. I considered that intravenous injections were too dangerous, that weekly intramuscular injections should be sufficient, and that the individual dose should not exceed one c.c. I did not prescribe active topical applications in order not to obscure the effect of the treatment. In those patients, however, to

whom strong salves were inadvertently given, improvement, as a rule, was no more frequent or rapid than in the others or with the salve alone. The number of injections, ranging from four to twenty-seven, appeared to have no influence on the final outcome. Most of the patients who received the largest number of injections showed no benefit and the three who were entirely cured had only eight, six, and nine injections respectively.

Conclusion

While the results are, occasionally, temporarily good, this treatment is too long, uncertain, and potentially dangerous to be considered a valuable aid in the treatment of psoriasis. Only two or three patients were completely cured and so relatively few were definitely benefited that these results may have been due to the softening effect of even the boric acid salve or to a spontaneous remission, as occasionally occurs in this disease. The injections did not appear to prevent recurrences nor delay their appearance, in fact as mentioned above, in some patients new lesions appeared even during treatment. Local therapy was not more effective or rapid during or after the injections than before.

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References

- 1 Moore, James Brit M. J. 2 41, 1922
- 2 Richter W. Med Welt 4 29 1039 1930
- (b) Zbl f Haut u Ges, 37 583 1931 (c) Dermat Ztschr 65 375, 1933
- 3 Schmidt, P. W. Munch Med Wchnsch 78 1090 1931
- 4 Abramson Zbl f Haut u Ges, vol 11/12 No 38, 1931
- 5 Segoe, P. and Von Luka S. Munch Med Wchnsch 78 2122, 1931
- 6 Schwartz F. Med Welt, 6 782 1932
- 7 Bohnstedt, R. Munch Med Wchnsch, 79 1100 1932
- 8 Frennd E. and Ravalico M. Arch ital d dermat 9 252 1933
- 9 Geyer H. and Wesener G. Dermat Wchnsch 99 1105 1934
- 10 Bowden D. P. Clin Med & Surg 41 61 1934
- 11 Barr J. New Jersey Med J, 32 376, 1933

Discussion

DR. FRANK C. COMBES, New York City.—It is refreshing to hear a piece of therapeutic research so ably presented. Dr. Niles is to be congratulated for his honest and unbiased report on the therapy of this intractable disease. Robert Willan, in 1809, first described psoriasis as such and differentiated it from other dermatoses. It was not until 1876 that chrysarobin was used in the treatment. The discovery of its efficacy was entirely by accident, as the preparation had been previously used and with success in fungus infections. It is still probably the most effective remedy at our disposal.

The empiric nature of chrysarobin and its limitations have for years been appreciated. As a result many other methods of therapy have been advocated. Many investigators in their enthusiasm have allowed the personal equation to influence the accuracy of their reports. Manufacturers have frequently and unknowingly advocated the use of preparations for the treatment of the disease which have been worthless. Editors of scientific journals deserve our sympathy in their efforts to eliminate quasi-scientific papers based on insufficient and improperly controlled investigations.

It is unnecessary for me to mention the many methods of therapy advocated for the treatment of psoriasis. Manganese is one of the more recent. It is an occasional constituent of organic tissue and has been detected in minute quantity in various parts of the human body. It is probably not a normal constituent of any human tissue, although some physiologists claim that it exists in small quantity in the blood and bile in connection with iron. If psoriasis is an infectious process it is conceivable that manganese may in occasional cases be effective. It has proven so in some cases of staphylococci. If it be a deficiency disease or evidence of metabolic disturbance I cannot understand how small quantities of this metal can be corrective.

DR. HERMAN GOODMAN, *New York City*—Some ten or eleven years ago, I reported on the colloidal manganese in psoriasis and although at that time I had seen favorable results in a number of cases, I must confess that the patients who had psoriasis then have evidenced psoriasis since.

For many years, however, I believed that one of the patients had no recurrence. In fact, she married under the impression that having been free of psoriasis for a number of years, she would continue with a normal skin. She returned with a psoriatic eruption as do practically all the patients who have true psoriasis.

My conjecture as to the mode of action of colloidal manganese in psoriasis was that it affected the enlarged capillary blood vessels within the derma.

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D., DR. P.H., *New York City*

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

A Mother's Son

It frequently happens that a strong attachment to a patient's mother interferes with his falling in love with any girl. Even the ordinary public is aware of such occurrences, which are expressed in the popular anecdote of the young man who, when reminded by his father that he must get married, said he was ashamed to do so and at the father's objection that he himself had done the very same thing, the boy answered that it had been easy, of course, to marry mother instead of some stranger.

But this exaggerated affection for the mother or father is not always apparent and sometimes it is so hidden that it is quite difficult to discover, especially in people who have read modern books on psychology and know what questions to expect from a mental hygienist.

One man over thirty who had never married, but had had many sweethearts, was forever unsatisfied and unhappy. Always complaining of impotence, he never discontinued to seek a cure, for which none of the ordinary treatments could help him. He said he will not marry unless he is sexually perfect. On the other hand his ideal was, as he claimed, married life.

That the cause of his impotence was neither organic nor neurological became evident during one of his talks when he was caught unawares.

He said

"The woman with whom I have relations—or try to have—is to me like a mother. Her bare body receives me in friendship, gives me shelter, protection, safety, comfort. I feel like a suckling baby asleep with the mother's nipple in his mouth. I am a young kitten lying between the widely outstretched paws of the big cat. A fetus who is re-entering the parts from which it has emerged. Each time I lived with a woman I experienced the same thing."

That was the key to his psychology.

Then came all sorts of confirmatory slips of the tongue, like "Some people want to accumulate *mothers*, I mean money," which further exposed his mental trend.

From then on it was easy. His childhood and adolescence unfolded themselves in quick succession. A flood of light was shed over his entire life and helped him to throw off the inhibition that made him both impotent and unable to unite with any woman and which marred his happiness with deep melancholy bordering on mental illness.

He was told that he could not expect to be perfect at the intercourse, that this was not an absolute necessity for his well-being and that a woman who would care for him could become adjusted to his needs. Instead of waiting for his impotence to be

cured in order to marry, it was more reasonable to believe, in his case, that married life would cure his impotence.

This was precisely what happened. As soon as his impotence ceased to be an obsession, a problem, as soon as he was not so tense about its solution and as he relaxed in the performance of the sexual act, he

had both a normal libido and better erections. It is the same with the stutterer who cannot speak because he tries too hard, and with other similar functions.

This was at the same time a cure for his mental condition and a discipline which he sorely needed in his irregular life.

Poor Pat

Pat is a sixty-four year old man who immigrated from Ireland in his teens but still rolls his *r*-s heavily and uses expressions from the old country. As he sits down near my desk in the clinic I feel a shock. He looks exactly, except for his clothes, like Brueghel the Elder's "Shepherd." Indeed he is and feels just as timid and downtrodden as his brother of the sixteenth century painted with so much love and sympathy by the Flemish artist. Mentally he resembles also The Man With the Hoe or, still better, Anatole France's Crainquebille who has been functioning in this world all his life but who does not understand it and who is finally crushed by its intricacy and magnificence.

"I am affeared," he says and he cannot continue.

With much coaxing I succeed in understanding him.

Pat has been working as a laborer everywhere and for everybody. He has helped building bridges and tunnels, breaking rocks for foundations, clearing fields, blasting roots, loading and unloading coal, making and mending roads, tending furnaces, cutting wood. He has been in blinding dust, in suffocating and poisonous vapors, in dry deserts or half immersed in freezing water. Many times injured and often almost killed in accidents.

He was never afraid until lately. He never worried.

In the first place he finds no work. Nobody wants him. His future, yea, his immediate future is dark. He sees nothing ahead of him. He does not consider applying for public relief, because it is a nuisance to him who has never gotten anything for nothing and because he still hopes to find a job.

Only now he looks around himself and feels the pangs of isolation. He was never married. Why? The answer is, he could never afford it and no girl wanted him, which means that no one went out of her way for him, and he was too shy to approach any woman. He has no family ties in America and he has forgotten those he

had abroad. He used to drink with some friends, but now they don't care for him. He is unable to pay either for them or even for his own share. When they see him they look away.

He is unhappy "the worst way," being somewhere between two situations. To be on the brink of uselessness is what offends him mostly. He may have to become reconciled with the idea of dependency, but he is still resisting and is yet in a faint state of inner rebellion, which is getting feebler every day.

And he is devoured by a feeling of terrific sinfulness. In his day he often drank. He earned enough, didn't he? he explains. And worse than that, he masturbated. Of course, he does not use this word and acknowledges his transgression only after deep probing. Not now! He protests as quickly as his general sluggishness permits him.

And as he feels a greater nearness to his Maker he goes more often to Church, where he confesses those two sins. But, to his amazement, confession brings no solace. Perhaps because nothing worth while is said to him. There friendship eludes him.

So he turns to the doctors.

His eyes are humid because, humble as he is, this is a worse humiliation for him.

Well, his arteries are older than his years. And he is mentally *senile*. Not dull, although in his present misfortune he may appear so. He is really of average intelligence—average for his social status.

While it is impossible to give him back a young mind or a fresh body, and to restore the elasticity of his blood vessels, something is accomplished by encouragement, by assuring him that his sins are not bad or harmful since they have not harmed him so far, and by getting him used to the possibility of receiving relief, indeed by sending him to the proper place for that purpose.

He kisses the doctor's hand before the latter could be withdrawn, he picks up his cap which he had reverently placed on the floor, and he departs.

Several such heart-to-heart talks were necessary in this case.

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EDITORIALS

The Federal Reorganization—A Medical Department

The various suggestions put forward in Washington for the reorganization of governmental and departmental bureaus must impress the philosophic observer with certain pertinent facts. Cross currents of pressure groups, acting in self-perpetuating interest press their claims for consideration in opposition to those who desire to see the reorganization take the line of increased efficiency and perhaps also of economy. Those in power are now learning what we have so often stressed when warning our people and its elected representatives against measures aimed at delivering medical care to our people by any scheme which necessarily would embrace the establishment of another great bureaucracy.

If one examines the situation present in Washington today, one cannot but be impressed with the growth which has taken place of a formula of government hardly contemplated by the founders of our nation when they divided our government into its three fundamental branches, the legislative, the executive, and the judiciary. Many thoughtful observers for a long time have looked with deep concern upon the growing evidence that much government activity was carried on by "Commissions" and by "Committee agencies," in which the division of authority

into the three aforesaid governmental functions were sometimes combined, and often confused. The party in power can do the people no greater service than to keep in mind the possibility of returning our government to the three fundamental channels, with their inherent checks and balances, so that its parliamentary framework may live and properly function. For our form of democracy has been found good for our people, and has stood the strain under conditions of development, in eras of prosperity and in those of depression, in eras of war and of peace.

Our particular interest now, in this contemplated reorganization is deep, not only as citizens of a great democracy, but as a group interested in delivering a vital service to the public. We may be pardoned for claiming, in view of our past and present service to the public, that very important considerations of public welfare prompt our suggestion that serious consideration be given *now, to the establishment of a federal department in which all activities having to do with the promotion of health and the prevention of disease might with evident advantage, be combined*.

Welfare work and its regulation and supervision must not be confused with the maintenance of health, and the pre-

vention of disease. Welfare work has a distinct field of its own. Leaders in welfare work—sociology—are not by training, experience or attitude fitted to supervise, regulate or make recommendations regarding medical problems. The chaos resulting from the ill-considered ideas of sociologists to impose on the country a system for delivering a lower grade medical service based on the foreign insurance conception, rather than evolve an American plan which would maintain American standards of living, wages and medical care, is but a case in point. Too often these sociologists lack the necessary technical training in our vital traditions, and they recklessly, ignorantly, or blandly and innocently send to the scrap heap traditions and even principles which are integral fundamentals in medicine.

The questions concerned involve hygiene and occupational hazards in the home, school, factory, farm, and mine. The nation needs regulatory advice, and supervision regarding health standards, and preventive and prophylactic instruction from its prenatal stage through its lifespan to old age. The rehabilitation and re-education and the conversion into useful, productive members of society of the physically and the mentally handicapped is the concern of a medical group, not a welfare-group, and even crime prevention to many of us presents a medical rather than a law question.

The health of its people is the prime concern of the State. A governmental department should be set up to combine all the nation's medical activities, *and the head of this department should be a doctor of medicine*, with high administrative and executive abilities.

An Illuminating Contrast

Medical Expense Indemnity Insurance, introduced by the Non-Profit Mutual Benefit Association of Brattleboro, Vt. thirteen years ago and adopted with slight modification by the Spaulding (Bakeries) Employees Benefit Associa-

tion around 1930, furnishes some interesting comparison with compulsory health insurance. In their entire approach to the problem of medical care, the difference between the two plans stands revealed. The former helps the low income classes *to help themselves* to provide adequate medical service adapted to individual needs. The latter forces the worker to subscribe to one of those uniform systems that Mr. Richard M. Bradley likens to a universal garment—"* * * seldom a fit for any particular individual."

Repeated surveys have shown that only the protracted illness or lesion requiring major surgical intervention disrupts economic security. The great majority of people are able to pay for the necessary occasional visits of the family doctor out of current income or savings. It is sheer waste to spend the taxpayers' money—and that means the money of all of us—on an elaborate bureaucratic system for this purpose. By eliminating coverage on trivial illnesses that are no serious problem to the worker, the costs of medical indemnity are reduced, operation is simplified, and the opportunities for petty malingering are removed.

A large insurance company, after studying a typical year's expenses for the 37,000 persons comprising the families of its employees, found that "about 4 per cent of family income provides the average American family with all needed care including hospital, nurse and dentist. The Brattleboro and Spaulding plans require less than 1.5 per cent of family income to provide for major illness, leaving a margin of 2.5 per cent for other medical expenses. By the most conservative estimates, compulsory health insurance would cost 7 per cent.

Under non-profit medical expense indemnity insurance, the high standards of independent private practice are encouraged "the worker pays for what he wants, and gets what he paid for." Under compulsory health insurance, there is neither time nor incentive for thorough investigation of cases. A hasty diagnosis and a bottle of medicine are the rule. "The

worker pays, and takes what he gets, whether he likes it or not." (Quotations throughout are from an illuminating booklet issued by the Committee on Economics of the Medical Society of the State of New York)

Nothing in the experience of European countries justifies the extension of compulsory sickness insurance to the United States. Mortality rates are lower here, the standards of professional service higher, preventive medicine more advanced. For the most part agitation for obligatory prepayment for illness comes from politicians and social welfare workers eager to obtain control over medical practice. It is a primary principle of the Brattleboro and Spaulding plans, in contrast, that the lay insurance organizations must confine its responsibility "to the payment of lay obligations," leaving the control and development of medicine to the physician.

This is *not* an endorsement of the Brattleboro or Spaulding plans in their entirety. They do, however, suggest that there are other methods capable of dealing with the question of medical care for the under privileged more efficiently than compulsory health insurance and without the latter's damaging influence on medical standards and public morale.

At the January meeting of the Executive Committee of the Medical Society of the State of New York, a committee was appointed to make an intensive study of these and any other systems which promise to contribute to the solution of a problem on which decisive professional action must soon be taken.

Why Not Here?

The January ninth issue of the *J.A.M.A.* carried a news item that bears repetition. The national legislature of Argentina has set aside an annual fund of five million pesos (about two and a half million dollars) to pay physicians for their work in the public hospitals. While the rate of payment under this budget will

necessarily be modest, the bill is a great triumph for the practitioners of Buenos Aires who have campaigned for this reform. Moreover, it sets a highly important precedent.

There is every reason why this country should follow the example set by Argentina. The United States does not as a rule fall behind South America in its conceptions of governmental duty. The physicians of New York State are no less conscientious or efficient in their services to the public hospitals than their Argentinian colleagues. Argentina has shown itself generous and just in acknowledging that the sick poor are the responsibility of the entire community, not of any one profession. New York State should not continue to keep its eyes closed to this incontrovertible fact.

Financial considerations furnish no excuse for city and state failure to relieve the medical profession of the burden of the indigent. The government does not take economic stringency as a warrant to saddle other professional or industrial groups with its responsibilities. In spite of gaping budgetary deficits, governmental agencies are busy with schemes to spend taxpayers' money on unnecessary services to wage earners who are well able to provide for themselves. Surely it is their first duty to pay for medical care to the needy and dependent.

The precedent set by Argentina cannot long be ignored. This is something that not only *can* but *should* happen here.

Welcome Among Us Dr. José Arcé

Refreshing alike to body and spirit, like the scent and vision of an oasis greeting the sand-bitten eyes and dry, thirsty throat of the weary desert traveller, are the reactions and emotions aroused by the addresses and the responding talks evoked by the presence among us of very distinguished South Americans led by the Dean of the University of Buenos Aires, Argentine Republic.

The occasion was the dinner tendered

by the New York Chapter of the Pan American Medical Association held in the Metropolitan Club, New York City, on January eleventh. The guest of honor was Dr José Arcé. He was accompanied by a group of surgeons—Doctors Adolfo F Landivar, Antonio Egues, and Isidore Castillo Odena. Dr Arcé's address on "The Future of Pan American Medicine" is published elsewhere in this issue [page 327].

To greet these eminent medical men, the New York Chapter of the Pan American Medical Association assembled a very representative group of medical authorities from many fields of American medicine. Dr Charles Gordon Heyd greeted the visitors for the A M A, and Dr Adolph G DeSanctis, President of the New York County organization, represented the local group in organized medicine. The Executive Committee of the State Society, at its last meeting, nominated Dr José Arcé for honorary membership. At the gathering, the great scientific and educational medical institutions of the vicinity of New York were well-represented, for the development and advancement of graduate education seems to concern these visitors. They envisage the development of great teaching centers, and an exchange of professors and scholars, working under scholarship awards, between the countries of Central and South America and us. They cordially desire that we of North America, shall visit and study them and their institutions of learning.

We should do this. We, in this country, have too long kept our eyes turned toward Europe whence came to these shores—for the most part—our ancestors. Almost subconsciously, we looked for guidance in advances in scientific medicine to the European cultural centers. But Europe, torn by hates, is separated by ideology of governments, and except in the great democracies of England and France, its people are rigidly regimented even in their thinking, and strictly limited in the development of their activity by racial and geo-

graphical lines. Endeavor is made even to confine medicine to national boundaries. Meanwhile, to the south of us, under the impetus of freedom of thought equal and analogous to our own, great free institutions are developing, and fine intellectual achievements are being recorded. There, like here, race, creed, and nationality are subservient to intellectual integrity and honesty. There it is also held true, as it is in democratic England and France and here, that science—particularly medical science—knows no boundaries and is not considered an inherent gift of any one people, race or geographical unit.

Dr James Ewing remarks on the crucial period through which the world is moving, and wisely calls to our mind the truism that man is best judged by his philosophy of life. Likewise nations are less to be esteemed and estimated by their accumulations of grim armaments, or even art treasures denoting past glories than that the standards of their state of civilization must be ascertained by the philosophy of living which the people of a government exhibit and preach. Study of the underlying philosophy of most European governments and people leaves us almost in despair, and we sense that the very future welfare of mankind is more dependent than most of us realize upon the maintenance on this Western hemisphere of a philosophy of living which encompasses freedom, not only of political thought for all peaceful activity, but especially intellectual freedom for scientific advancement and achievement.

We welcome Dr José Arcé and his distinguished colleagues! The ever recurring interchange of ideas and visit among North, Central, and South Americans only can result in better mutual comprehension and appreciation. Perhaps in the not too distant future, Europe will recover from its present mental madness, recapture its poise, and cease bending all its efforts to mold its peoples for war and devastation. Then, perhaps taking example from the Americas where

the torch of liberalism burns brightly and readily, Europe too will join us in developing constructive ideas for the betterment of mankind

Pneumatology!

The use of various gases in therapeutics has increased tremendously during the past ten years. Limited as once they were to the field of anesthesia, many of them have been found efficient in the treatment of asphyxia neonatorum, carbon monoxide poisoning, submersion, hypoxemia, and terminal poliomyelitis. The practical employment of the gases is scattered among various branches of our profession and embraces also the rescue squads of the Police and Fire Departments. Occasionally, the anesthetist is called upon

But it is the latter, contends the "Society for the Prevention of Asphyxial Death," and rightly so, who, by virtue of training and ability, is most capable of administering these gases. Only the lack of a generic term adequately to describe the collective uses of "gas therapy" seems until now to have frustrated the expansion of the *anesthetist* into a *gas-therapist*! The term *Pneumatology* is suggested as best describing the science of elastic fluids or pneumatics. And so our *anesthetists* are to be metamorphosed into *pneumatologists*. Ah, but here's the rub!

Derived from the Greek, *pneumatology* is properly defined¹ as "the science of the nature and operation of spirit, or a treatise on that science, the science of spiritual existence, formerly divided into (1) *theology*, treating of God, (2) *angelology* and *demonology*, treating respectively of angels and demons, and (3) *pneumatology proper* (now *psychology*), treating of the human spirit."

It also indicates "the science of the beliefs of men touching a world of spirits." In theology it concerns itself with the "doctrine of the Holy Spirit."

Verily, our brethren in the gaseous fields of Aesculapius would betake unto themselves many and divers enterprises mostly alien to our noble calling. Another very eminent specialist engaged in this work has suggested the term "Anesthesiology."

While we pause, awaiting the final action of the neologists, we sympathize with the efforts of the Society for the Prevention of Asphyxial Death, and offer counsel to the end that they continue their search for a more suitably descriptive name—one that will represent a happy union of the gases without the terror of demons and spirits, aye, even of angels, hovering close at hand!

The Doctor and Traffic

Despite the mechanical perfection which the modern automobile possesses, motor car accidents are occurring with increasing frequency. As a result, the ingenuity of the surgeon has been taxed to devise new technics for the treatment of new types of fractures and other forms of trauma which have made their appearance since the increased use of the automobile.

It rapidly is becoming evident to all concerned in the study of traffic problems that the human element is as important a factor in the production of motor car accidents as is the mechanical condition of the vehicle itself. There is a concentrated campaign now in progress through the radio, and in the press for a more stringent attitude in the granting of drivers' licenses. A plea is made for the elimination of those having physical defects which would in any way render the applicant unsafe at the wheel of a car.

The testing at the present time is in the hands of lay employees of the Motor Vehicle Department. Eyesight is tested in the crudest manner possible. The general physical condition is overlooked entirely. The mental status of the pros-

¹ New Standard Dictionary of the English Language, Funk & Wagnalls, New York and London, 1927

pective operator is not taken into consideration. Selling¹ has written a splendid summary of these problems in which he sets forth the duties which the medical profession must assume in coping with the prevention of traffic accidents. Since we are called upon to treat the injured, it becomes our duty to help in reducing to a minimum those hurt as a result of discernable physical and mental defects on the part of the driver.

No life insurance company accepts an applicant without a thorough physical examination. The State, as the protector of the lives of its citizens, should do likewise before putting a potential instrument of death in the hands of anybody. And, it is the family doctor, not the official physician attached to a Commission, who would *know* the epileptic, the feeble-minded, the insane, and the chronic alcoholic—important factors not evident during the examination for the detection of physical defects. In his hands should be placed this phase of the traffic problem and legislation to that effect is urgently needed.

Interesting Statistics

According to the authoritative League of Insurance Physicians of Germany, there were 30,559 insurance physicians employed in the Third Reich in a report under date of July 1, 1936. In 1933 there had been 32,620 physicians so employed. Thus there was a decrease of 2,061 doctors despite the fact that in the same period the number insured was increased by about two million persons. According to the National Bureau of Statistics, the administrative personnel of the sick insurance societies numbered 35,635 persons in 1934, and 36,229 persons in 1935. With an increase in the total number of insured of nearly a million, since 1924 the lay personnel seems to have been increased about 10,000, *but the physicians to handle this larger number were re-*

duced by about two thousand! (Italics ours.)

This bears out our contention, repeatedly made, that for almost every doctor employed in compulsory health insurance, one or more laymen are employed. The Berlin letter¹ in our *J.A.M.A.* throws interesting light on this and other questions. It should be studied by us all.

CURRENT COMMENT

"THE INVESTIGATOR WHO SEEKS to expose the fallacy of any long-established dogma and who thereby disturbs the serenity and ease of less ambitious mortals is certain to arouse antagonism and excite hostile criticism rather than to evoke a eulogium upon his efforts, and should he persist in his reprehensible course of shattering cherished ideals he comes to be regarded as a meddlesome fellow and a discordant element in his professional community."—Back in 1905 Dr. Frederick Whiting came to this conclusion and stated it in his book *The Modern Medical Operation*, and we quote it here because it seems to be one of those eternal verities, always applicable to the current scene.

"IN THE PAST TEN YEARS there has been an alarming drop in civil liberties all over the world. Rights painfully won over hundreds of years of struggle are gradually being relinquished by the people or wrested from their hands. A parallel situation exists in the field of healing, where powerful lay forces are attempting to subordinate the medical profession to their interests and control. A great impetus for the destruction of medical independence comes from politicians and professional welfare workers who see in this field a virgin opportunity for the bureaucratic expansion on which they thrive.***

"Under compulsory health insurance the physician would cease to control his own practice and become a cog in a bureaucratic machine, subject to the opinions and orders of his administrative superiors. Voluntary professional union makes for strength. Enforced organization under external control would destroy professional independence and leave the doctor vulnerable to every hint of pressure from above. If physicians attach any value to the untrammelled judgment

¹ Selling, L. S. *The Physician and The Traffic Problem*, *J.A.M.A.* 108 93, 1937

¹ Berlin Letter, *J.A.M.A.* 108 218, 1937

and high prestige they have enjoyed throughout centuries of professional freedom, they will fight insurance schemes in every possible way"—This time the warning, the plea for the maintenance of "independence" for the medical profession comes from the *San Francisco Medical Bulletin*

"IN 1935 THE 4,257 GENERAL HOSPITALS in the United States gave 95,372,310 days of treatment to 6,867,870 patients admitted"—From the *New York Sun* of January 11, and vouched for by the *Annals of the American Academy of Political and Social Science*

"COMPULSORY HEALTH INSURANCE, when it combines insured medical service with cash benefits for illness is not really *health* insurance at all, it is a *tax upon health*, the proceeds of which are used to insure—or rather to *reward*—sickness!*** It is fundamentally different from such judicious forms of 'social security' legislation as old age insurance and unemployment insurance. First, health insurance—unlike old age and unemployment insurance—attempts to insure against a risk that can be, and quite commonly is, *self-induced*. Secondly, health insurance—unlike these other two insurances, involves compulsion upon and eventually the degradation of, a whole profession—a profession the *quality* of whose public service cannot fail to be profoundly affected, almost certainly for the worse, by such a radical change in its economic and social foundations as compulsory health insurance would cause.

"The people of the United States—if they knew the facts, if they understood the issues—would never tolerate compulsory health insurance. Who is to tell them the facts? Who, indeed, if not the physicians?"—We agree with the *Westchester Medical Bulletin* of January 1937, from which we have quoted the above, and we feel, as its editors do, that if compulsory health insurance of some sort or other is not to be "put over" on the American people they must be forewarned with facts and they can best be forewarned by their physicians

"THE SAVING OF LIVES IS NOT ENOUGH. The perfecting of lives should be the aim. Medicine must ally itself with those forces which make for the best access to the materials and opportunities which promote happiness and stimulate physical and moral perfection in men and women. Medicine, in the end, must be concerned for cultural

values—the passion for wisdom, beauty, and justice. These are the real expressions of health"—Dr J P Warbasse in his book *The Doctor and the Public*

"THE TENDENCY TO GET BACK to a better appreciation of individual and personal relationships in medicine is quietly gathering strength in a manner which may have deep influence upon the future practice of medicine. It has been discussed under the designation 'Neo-Hippocratism,' which voices a call to go back and sit at the feet of the ancient master. To think of the man as a whole, of his constitution and his nature."—From the address of Dr James Alexander Miller at his inauguration as President of the New York Academy of Medicine at its annual meeting on January 7

At the same meeting Thomas D Thacher, former Federal judge and Solicitor General of the United States, voiced his doubts as to the soundness and validity of schemes of state or socialized medicine. "To put it concretely," he said "figures indicating averages for the whole of the United States are made the basis for the universal application of a single remedy *without* consideration of the *local conditions* under which it is applied. This is a *peculiarly erroneous method of thought and an extraordinarily dangerous method of action*" (Italics ours)

"MUCH HAS BEEN WRITTEN AND SPREAD by means of the printed sheet and by word of mouth about socialized medicine. By far the greatest part of it for lay consumption has been the product of social reformers because medical men have been reticent about publishing their own ideas to the world at large for various and sundry reasons. They have expressed themselves chiefly through the medium of their own scientific journals or at private forums. Much of the little that has been permitted to seep out to the laity has been couched in such exacting language and with such detail that it has been lacking both in appeal and in comprehension to all but a few of those whom it was intended to impress"—*Jackson County Medical Journal*, Kansas City, Mo

"MORE WOMEN THAN MEN ARE studying medicine in Soviet Russia today, according to Dr Henry E. Sigerist, professor of the history of medicine at Johns Hopkins University, who has passed the last two summers studying the extensive development of socialized medicine in the Soviet Union

"In an address before the New School for Social Research *** Dr Sigerist estimated that of the young doctors that will emerge from the Soviet medical schools in the next five years to engage in the ambitious public health program, approximately two out of three would be women

"He attributed this vocational phenomenon to the fact that the demand for engineers in Russia during the last decade absorbed

a large proportion of the young men who otherwise might have turned to the medical profession. Engineers were better paid and accorded more privileges during this period of intensive industrial development, and as a result young women found many opportunities in the medical field ***" From the *New York Herald Tribune* of January 14

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

250 King St
Port Chester

To The Editor

I have read with interest Dr Stuart E Krohn's able description of a case of acute recurrent polymyositis associated with blood eosinophilia which appeared in volume 37, number 1, page 10 of your Journal

May I suggest in addition to the differential diagnosis given in the paper, a consideration of the well-recognized and not infrequent association of polymyositis with blood eosinophilia in periarteritis nodosa?

Respectfully yours,

N H SCHWARTZ, MD

January 11, 1937

OUR EDITOR'S "HEART TO HEART" TALK

It reached the point recently where a medical editor in the Southwest felt that he must tell the doctors who were sending in scientific articles for his pages a few things good for their souls. He took his pen in hand and wrote the title, "Our Duty." Then he said, "This is a busy world." Time is precious, life is short. So he comes out flatly without mincing any words, and declares that "the writer who uses an excessive number of words in putting over his message is a robber of his readers' time and a confrere's right to get his message into print. He robs himself also of prestige because his lengthy article has few readers as compared to those his shorter article would have."

It seems that the editor has been doing some plain and fancy cutting, and has perhaps "stirred up the animals," as he says.

It is not unusual for us to delete sufficient words from an article of twelve to fourteen pages to reduce it to six to ten pages with

nothing being omitted except unnecessary words. From other articles we are able to delete relatively few words. Our deletions are in inverse ratio to the care and time an author spends upon his paper. A year or more ago a certain author submitted a paper from which we deleted perhaps twenty-five per cent of his words. This year he submitted another paper and the deletions were negligible. We probably save enough space of each issue to publish perhaps two short papers that would otherwise be crowded out.

In the main our contributors have expressed themselves as appreciative of the vast amount of time we have spent in editing their articles so as to get their ideas across in the fewest possible words. Occasionally an author has said to us in effect, I wish my paper published exactly as I wrote it. Such an author certainly does not understand the problems which confront us.

In confirmation of the editor's contention we have presented his main points in about half the space that he required.

COMMITTEE ON LEGISLATION

January 12, 1937

Although the Legislature endeavored to organize on Wednesday, January 6, the Assembly has not as yet effected an organization. The Senate did organize and has already received for consideration more than one hundred bills. Among these there are several that are of interest to us.

This morning the Senate announced its committee chairmen. A statement of these you will find and notice, please, the two changes in the committees with which we are most closely associated. The Judiciary Committee will be headed this year by Senator Kleinfeld and the Welfare Committee by Senator Livingston.

We shall endeavor to keep you in close touch with what happens in Albany and we hope in turn that you will reciprocate by keeping us informed with the reactions you receive from your legislators when you correspond with them in accordance with our suggestions. You will recall that we have often said that our combined strength depends upon the integrity of the local county unit's relationship. If you and your legislators thoroughly understand each other and are harmoniously cooperating, the medical profession will have nothing to dread.

The following bills have been introduced. Senate Int. 1—Dunnigan, relative to aid to dependent children, child welfare, assistance to blind, Federal aid for child welfare, maternal and child health services and care and treatment of crippled children, and other public health work. Referred to the Relief and Welfare Committee.

Comment This is the social security bill. There is nothing in it that directly refers to the practice of medicine. Nevertheless, it is possible that many would like to read the bill and we shall be glad to send you a copy if you write us a request.

Senate Int. 20—Howard, for regulating private fee-charging employment agencies, and appropriating \$40,000. Referred to the Finance Committee.

Senate Int. 47—Williamson, amending the Workmen's Compensation Law, by requiring commission or board in making award to include therein where claimant is successful, his necessary and reasonable disbursements, and permitting a review by appellate division, on appeal, of both findings of fact and rules of law of board. Referred to the Labor Committee.

Senate Int. 59—Kirkland, amends the

Agriculture and Markets Law, for testing bovine animals for Bangs and other infectious diseases and relative to sale of such infected animals and to indemnities. Referred to the Agriculture Committee.

Senate Int. 67—McNaboe, amends the Public Health Law, for establishing a narcotic control bureau in the Health Department, and appropriating \$25,000. Referred to the Finance Committee.

HOMER L. NELVIS
JAMES L. GALLAGHER
B. WALLACE HAMILTON
JOHN J. MASTERSON
LEO F. SIMPSON

Senate Committee on Codes

Elmer F. Quinn, Chr	Jacob H. Livingston
A. Spencer Feld	Emmett L. Doyle
John J. McNaboe	Francis McElroy
Lazarus Joseph	C. Tracey Stagg
Joseph D. Nunan, Jr	William H. Hampton
Jacob J. Schwartzwald	Edwin E. Miller
Walter J. Mahoney	

Senate Committee on Public Education

A. Spencer Feld, Chr	William J. Murray
Julius S. Berg	Rhoda Fox Graves
Joseph D. Nunan, Jr	Thomas C. Desmond
Rae L. Egbert	Joe R. Hanley
Jacob J. Schwartzwald	William H. Lee
Jacob H. Livingston	

Senate Committee on Public Health

Jacob J. Schwartzwald, Chr	William J. Murray
John T. McCall	George F. Rogers
A. Spencer Feld	William H. Lee
Joseph A. Esquirol	Frederic H. Bontecou
Edward J. Coughlin	Roy M. Page

Senate Committee on Public Relief & Welfare

Jacob H. Livingston	John J. McNaboe
Duncan T. O'Brien	William I. Murray
Elmer F. Quinn	George F. Rogers
Jacob J. Schwartzwald	Pliny W. Williamson
James A. Garrity	Arthur H. Wicks
Stephen J. Wojtkowiak	Rhoda Fox Graves
Clifford C. Hastings	

Senate Committee on Judiciary

Philip M. Kleinfeld, Chr	Joseph A. Esquirol
Elmer F. Quinn	Lazarus Joseph
John L. Buckley	Benjamin F. Feinberg
Joseph D. Nunan, Jr	Earle S. Warner
Julius S. Berg	William H. Hampton
A. Spencer Feld	C. Tracey Stagg
John J. McNaboe	Pliny W. Williamson

Bulletin No 2

January 19, 1937

The Speaker of the Assembly announced last night the personnel of the various standing committees and enclosed you will find a list of those with which we are most actively concerned

There will not be much work done by the Legislature this week owing to the fact that many of the legislators have gone to Washington to attend the inauguration of President Roosevelt. This will give added opportunity, however, to those who have not as yet interviewed their legislators to do so, and it also gives an extra opportunity to those chairmen to send us a list of the members of their committees who have not already done so. It is highly important that we should have these names and we hope that if you have not sent us the names of the members of your committee, you will do so at once.

Bills of interest to us are slow in coming in this year. This may indicate that there will be few or that they will be unusually plentiful toward the close of the session. At any rate, bear in mind that every indication is that we shall have another chiropractic bill this year. We are informed that it will contain educational requirements equal to those which are now required of the physicians. Without doubt, the educational requirements will not be applied to those who are practicing in the State now, they will see to it that provision is made for their licensure under a waiver. The bill has not been introduced as yet, but it is not too soon for you to remind your legislators of the value of our single educational standard.

The following bills have been introduced during the past week:

Senate Int 21—Livingston, Assembly Int 188—Hammer, appropriates \$2,880,000 for payment of State's share of cost and administration of aid to dependent children and \$210,000 for assistance to blind, to Social Welfare Department, and \$25,000 to education for administering vocational rehabilitation of physically handicapped under Federal Social Security Act. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Senate Int 59—Kirkland, Assembly Int 156—Bartholomew, appropriates \$1,000,000 to pay indemnities for bovine animals killed on account of mastitis. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Assembly Int. 146—Allen, appropriates \$1,000,000 to Agriculture Department to pay indemnities for bovine animals killed on account of Bang's abortion disease, and for administration expenses. Referred to the Ways and Means Committee.

Assembly Int 179—Zimmerman, adds new Article 2-c, Public Health Law, making Health Department the State agency for administering those parts of the Social Security Act relating to maternal and child services, care of crippled children, and other public health work, and defining powers of Commissioner. Referred to the Relief and Welfare Committee.

Assembly Int 179—Zimmerman, adds new Article 2-c, Public Health Law, making Health Department the State agency for administering those parts of the Social Security Act relating to maternal and child services, care of crippled children, and other public health work, and defining powers of Commissioner. Referred to the Relief and Welfare Committee.

Action on Bills

Senate Int No 1—Dunnigan—Social Security—passed Senate

Senate Int No 21—Livingston—Children blind, aid to, appropriation—3rd reading

Assembly Committee on Codes

Harry D Sutor, Chr	Niagara
George B Parsons	Onondaga
Harold P Herman	Nassau
Warren O Daniels	St. Lawrence
Harold B Ehrlich	Essex
Russell Wright	Jefferson
Fred A Young	Lewis
William E. Morris	Saratoga
Guy W Cheney	Steuben
Chester T Backus	Otsego
Meyer Alterman	New York
Crawford W Hawkins	Kings
Irving D Neustein	New York
Leonard Farbstein	New York
Francis J McCaffrey, Jr	New York

Assembly Committee on Public Education

Harry L Averill, Chr	Wayne
Railey S Taylor	Orange
Wheeler Milmo	Madison
Emerson D Fite	Dutchess
William E Morris	Saratoga
Frank G Miller	Tioga
Warren O Daniels	St. Lawrence
Jane H Todd	Westchester
Chauncey B Hammond	Chemung
Guy W Cheney	Steuben
Chester T Backus	Otsego
Patrick H Sullivan	New York
G Thomas LoRe	Kings
Robert W Justice	New York
Austin B Mandel	Queens

Assembly Committee on Public Health

Ogden Bush, Chr	Delaware
Andrew D Burgdorf	Cayuga
Edward F Vincent	Broome
Ernest J Lomis	Oswego
Wane H. Todd	Westchester
Narren O Daniels	St Lawrence
Frank A Gugino	Eric
John B Briggs	Cortland
William M Stuart	Steuben
Edward P Doyle	Kings
Edwin L. Kantowski	Eric
Salvatore A. Farenga	New York
James V Mangano	Kings
Charles Bormann	Richmond
William J A Glancy	New York

Assembly Committee on Labor and Industries

Frederick A Washburn, Chr	Columbia
Herbert A Rapp	Genesee
Harold C Ostertag	Wyoming
Fred S Hollowell	Yates
James E Hill	Broome
William R. Williams	Oneida
Fred A Young	Lewis
Thomas A Leahy	Essex
Stanley C Shaw	Tompkins
Elsha T Barrett	Suffolk
Anthony J Canney	Eric
Charles H. Breitbart	Kings
Francis J McCaffrey, Jr	New York
Ralph Schwartz	Kings
Paul B Mercier	Oneida

LAY ADVICE ON HOW TO HEAD OFF SOCIALIZED MEDICINE

"A storm of criticism" is foreseen as likely to "burst upon Washington" if an attempt is made to force legislation through Congress favorable to health insurance. That is the view of the *New York Herald Tribune*, for, it says, with rare exceptions, every medical association or society, national, state or county, in the United States, continues to be uncompromisingly hostile to "socialized medicine."

Yet it is also true, it adds, that certain conditions exist in this country which argue for a much wider distribution of medical services than now exists, and it argues, as has often been maintained in these pages, that the best way to head off socialized medicine is to remedy these conditions now, before state medicine is called in. It says, in a thoughtful editorial

Most of these conditions and needs are, we believe, recognized by organized medicine. In rough outline they are as follows: There is a big element in the population either needy, ignorant and reckless of health or with low earning power but a real pride that gets much less medical attention than it should. Aside from all humanitarian considerations, this is a matter for grave public concern. Those persons disabled by neglected injuries or illnesses are likely to become permanent and expensive burdens on private charity or public funds. They also incubate sickness to the detriment of the public health. Next, there are more well trained and competent doctors and nurses in the United States than can earn a fair return on their investments in education and training. This makes the cost of medical at-

tention to those of average income, who want medical care and want to pay for it, discouragingly high.

Faced with these conditions, all those persons who would rather have the government take any difficult problem off their minds and solve it expensively and inefficiently than think and work it out for themselves clamor at once for compulsory health insurance under Federal control. Accepting such propaganda as a challenge, the medical organizations become so bitterly (if justly) critical of every compulsory insurance scheme—and are so much on the defensive—that they appear in their publications to be taking a let-well-enough-alone attitude. Against "socialized medicine" in every form that has been tried abroad, they argue from abundant data that it constitutes an enormous tax burden, that it lowers the quality of medical care for all, that it does not improve public health and that it forfeits through perfunctory, impersonal treatment the confidence of those very elements in the population which it is designed to benefit.

These objections, when examined in detail, are enough to line up the average conservative American layman behind the medical profession in its hostility to compulsory insurance. But mere hostility is not enough. The gap in medical care must be studied and a sound remedy devised. Otherwise the "socializer," who has the bit in his teeth, will prevail. To save the medical profession and the nation from the affliction of another European institution, about as well suited to our temper as peacetime conscription, it seems to us that the doctors will have to consider forthwith how medical, nursing and hospital service can be rapidly extended in conformity with the public interest and with their professional ideals.

COMMITTEE ON WORKMEN'S COMPENSATION

January 14, 1937

The attention of all physicians is drawn to Section 13-c of the amended Workmen's Compensation Law

"13-c. Licensing of Compensation Medical Bureaus (1) The commissioner may, upon the recommendation of the medical society of each county or of a board designated by such county society, or of a board as provided in section thirteen-b, authorize and license compensation medical bureaus, operated by qualified physicians wholly or principally for the diagnosis and treatment of industrial injuries or illnesses in respect of which they are authorized to render medical care under this chapter

* * * Application for such authorization shall be made on forms to be furnished by the commissioner and shall disclose in full the nature of the personnel and equipment of such bureaus. No such authorization shall be made in the absence of recommendation from the appropriate society or board. Each such bureau which receives such authorization shall

(a) Make reports on its personnel and equipment in such form and at such times as may be required by the commissioner, and

(b) be subject to inspection by the commissioner or the medical society of the county in which such bureau is located, and

(c) pay to the commissioner a license fee of fifty dollars per annum for each office of such bureau"

Physicians who desire or are required to obtain a compensation medical bureau license are asked to apply at once to Mr

Hugh J Murphy, Compensation Medical Registrar, 80 Centre Street, New York City, for an application blank, which they will fill out, notarize, and return to the Workmen's Compensation Board of the County in which the office requesting license is located.

A physician who practices independently and who is responsible for the treatment of every injured claimant does not need a bureau license. (Where a physician operates one or more offices principally for the treatment of injured claimants under the Workmen's Compensation Act, and employs another physician or physicians upon whom devolve the treatment of injured employees, wholly or in part, must secure a compensation medical bureau license.)

A qualified physician cannot delegate to another physician the treatment of and responsibility for an injured employee and himself render a report and a bill for a case that he has not himself treated. Therefore where a physician devotes himself exclusively or principally to the care of injured workmen, and finds it necessary to employ another physician to assist him and at times to assume part or full legal responsibility for the case, then, in order to avoid the penalty of 13-d-2, it will be necessary for such qualified physician to obtain a bureau license. By so doing he may under section 13-a employ another physician on a salary basis and may himself render a bill without being subject to the penalties of section 13-d.

DAVID J KALISKI, Chairman
FREDERIC E. ELLIOTT
B WALLACE HAMILTON

EDITORIAL YOUNGSTER GETS HIS DUE

One of the most awake and alive medical journals coming to this office is *Northwest Medicine*, of Seattle, and it was with no little interest that an article was found in its December issue telling who is the "guilty party." The magazine has been going thirty-five years and during that entire period the Editor in Chief has been the same man, Dr Clarence A Smith, who first saw daylight in '61, was graduated from Yale fifty-five years back and from the College of Physicians and Surgeons in '87. A few weeks ago some 130 of his fellows gathered at the Rainier Club in Seattle to do him

honor and presented him with a handsome watch as a token of affection and appreciation. It is a pleasure to add our felicitations and best wishes for many more happy and useful years. "He retains," we are assured, "the alert mind, the tireless energy, the keen enjoyment of life which would ordinarily characterize those half his chronological age. His youthful viewpoint, tempered with kindness and sincerity, is a constant source of inspiration to younger members of his staff. His sense of humor makes any work with him a delight. He is truly a happy man."

REPORT OF SUB-COMMITTEE OF THE INDUSTRIAL COUNCIL

July 1, 1935 to December 31, 1936

Report and resume of the work accomplished and the progress made by the Industrial Council and the sub-committee appointed by it in advising the Industrial Commissioner in the administration of Chapters 258 and 930 of the Laws of 1935 amending Section 13 of the Workmen's Compensation Law.

The Industrial Council at a meeting held July 22, 1935, which was attended by the five physician members recently appointed by the Governor as provided by the amendment to Section 13, unanimously adopted a motion that a sub-committee be appointed from its membership to make a detailed study of the medical situation, and to formulate the various poster notices, medical report forms, rules and regulations, etc.

The Industrial Commissioner as Chairman of the Council selected the following members as the personnel of the sub-committee: Dr E C Podvin, Chairman, Dr Wm. Linder, Dr H E Ayers (Alternate to Dr Linder), Mr Thos J Curtis, and Mr Max Meyer.

The Sub-Committee since its appointment in July 1935, has met in session to December 31, 1936, on ninety-six occasions. All members of the Sub-Committee attended all sessions regularly with a very few instances of absences.

The Sub-Committee took under consideration the composition and formation of a poster notice, medical report forms, rules and regulations relating to the administration of the Act and rules for the Industrial Council governing the procedure to be followed in hearing the appeals filed by physicians and medical bureaus.

A poster notice known as form C-105 was completed and perfected which contained instructions to both employer and employees relating to Section 13 which has been supplied to all employers with the direction to post in conspicuous places on their premises.

A medical report known as form C-104 was completed and perfected to be used by attending physicians. A supply of this form has been furnished to all authorized physicians with the direction that this form must be completed and filed on every case treated within forty-eight hours of the first treatment.

The medical report previously used, known as the C-4 form was revised to conform with the amendment to Section 13.

The sub-committee also devoted considerable time and study to the formulation and the wording of various other documents, certificates, and forms necessary to the administration of the Act, and some of these are indicated as follows:

Application blank form to be used by applicants requesting license for the operation of compensation medical bureaus known as form C-100.

A card issued to physicians certifying that they are authorized to do compensation work, known as form C-101.

A certificate issued to all physicians authorized to do compensation work, known as form C-102.

Daily abstract of receipts, used as a record for all monies received by the Department covering licenses issued for medical bureaus and laboratories, known as form C-107.

License certificate for the operation of medical bureaus, known as form C-109.

License certificate for the operation of laboratories, known as form C-110.

Application blank form to be used by applicants requesting license for the operation of physicians' medical bureaus, known as form C-121.

Form to be used by insurance carriers and employers when filing objections to medical bills and requesting arbitration, known as form A-1.

Form of submission to be signed by both the plaintiff and defendant when a medical bill is to be submitted to the Arbitration Committee for consideration and decision, known as form A-2.

As the law permitted employers to recommend authorized physicians to their injured employees when a request was made in writing by the employee, there developed a widespread abuse of this privilege. Various employers were using different type forms to be signed by the employees, and the wording of these forms failed to conform to the letter of the law. It was therefore necessary that the Committee devise a form of waiver embodying the intent of the law.

After careful study of the question a satisfactory waiver form was evolved which is now being used as a uniform standard form by all employers. The following is a sample of the form:

"This form is to be used only upon request of the injured worker after the occurrence of the accident."

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Employer

Dear Sir —

I hereby state that I do not wish to use my

right to select an authorized physician of my own choice and I hereby request that you select an authorized physician to provide me with the necessary medical care for my injury of (date)

Nothing herein contained shall prevent me from subsequently engaging the services of an authorized physician of my own choice for continuance of any medical treatment or care required

(Signed)

Address

The committee also gave considerable time and study to the compiling of a two page memorandum containing detailed instructions explaining the procedure to be followed by all authorized physicians. A copy of this memorandum has been issued to each authorized physician.

The various forms necessary in the administration of the Act was completed and perfected after numerous conferences held by the sub-committee with representatives of insurance carriers, employers, insurance buyers, state and county medical societies.

Various physicians and groups of physicians objected to signing the application form furnished by the State Medical Society because of the fact that it contained a clause purporting to be a waiver of certain rights of the applicant. It was necessary for the sub-committee to hold several conferences with the physicians in question, which resulted in the physicians agreeing to sign the application without any alteration. The application form, however, has since been altered and modified eliminating the objectionable clause.

The sub-committee was very active in conjunction with representatives of insurance carriers, employers, insurance buyers, and the State Medical Society in establishing a minimum medical fee schedule covering all counties in the metropolitan district. This fee schedule was adopted by the Industrial Commissioner effective May 1, 1936 after numerous conferences held by the Committee, and it was a very tedious and difficult task.

The sub-committee also gave considerable time and consideration to the establishment of a minimum medical fee schedule covering upstate New York, but this schedule has not as yet been adopted by the Industrial Commissioner.

The Committee has devoted much time and study to the problem of a fee schedule covering hospital service on compensation cases. Numerous conferences were held with representatives of hospital associations, state and county medical societies, self-insured employers, insurance buyers, Compensation Rating Board and insurance carriers.

Objection has been raised by both employers and insurance carriers to the adoption of a hospital fee schedule by the Industrial Commissioner on the ground that under the law it is not within the province of the Industrial Commissioner to fix a schedule of fees covering hospital services.

The Industrial Commissioner has requested from the Attorney General an opinion on this point. The Attorney General has not as yet rendered an opinion on this question.

There has been some difference of opinion between the parties as to the proper *per diem* rate chargeable by hospitals, and no agreement has been arrived at.

It was suggested that three certified public accountants be engaged to determine the cost to the various classes of hospitals in the handling of compensation cases. It was agreed that the insurance carriers, insurance buyers, and employers select one, and the hospitals and Industrial Commissioner select one each.

It was then decided to await the outcome of the audit by these accountants before considering the adoption of a hospital fee schedule.

The hospital fee question therefore is still to be decided.

In order to compile proper rules and regulations covering compensation medical bureaus the committee thought it necessary and did visit and inspect several medical bureaus to determine what should be the proper set up, equipment, personnel, and standards requisite for the proper operation of such bureaus.

After an exhaustive study of the situation a set of nine rules were compiled and adopted, which gives a definition of such bureaus, proper location, the necessity for the presence of a physician, how it should be housed, sanitary requirements, necessary equipment, and personnel, etc.

The Committee held numerous conferences with interested parties directly concerned with the administration of the Act for the purpose of setting up and compiling a set of rules and regulations which were needed to clarify many of the specific provisions of the law.

After repeated hearings held for the purpose of considering objections submitted from various sources to the original set of rules, many revisions and corrections were made.

The Committee gave considerable time and very careful study to the editing and the formation of these rules and has now completed this very arduous and trying task, and recommended for adoption a set of twenty-six rules covering the following subjects:

A rule limiting the time for action by a Medical Compensation Board to pass upon physicians' applications.

Rules of procedure to be followed for removal of physicians from panels and revocation of licenses of medical bureaus.

INDUSTRIAL COUNCIL REPORT

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Rules of procedure for handling appeals filed with the Industrial Council

Rule defining a physician's medical bureau

Rule indicating that all medical reports must be verified

Rule indicating the manner in which, and to whom, medical reports are to be submitted

Rule defining the specific procedures for which physicians must secure authorization from the employer

Rule indicating under what circumstances an x-ray may be taken by other than a physician

Rule indicating the procedure to be followed by physicians when treatment has been transferred.

Rule indicating procedure in case of a serious accident.

Rule governing treatment rendered by a registered physiotherapist

Rule governing the submission of bills by specialists and the securing of authorization

Rule indicating the method of securing hospital records by attending physicians

Rule defining the emergency status of cases public hospitals

Rule indicating procedure of medical inspectors for admittance to hospitals

Rule prohibiting hospitals operating medical bureaus and clinics

Rule indicating license is not necessary to operate a first aid station.

Rule prohibiting advertising on compensation work by physicians, medical bureaus, and laboratories

Rule permitting reduction in size of form C-105

Rule relating to the allowance of fees to attending physicians for appearance at compensation hearings

Rule indicating the manner in which bills are to be submitted covering hospital service, as well as physicians for medical service rendered in hospitals

Rule prohibiting the supplying of names of authorized physicians by insurance carriers to policy holders

Rule governing the procedure to be followed by medical inspectors employed by insurance carriers or employers

Rule governing procedure to be followed when a medical examination is requested by an insurance carrier or employer

Rule governing procedure to be followed by a specialist or consultant engaged by an insurance carrier or employer

After completing its work on the rules the committee presented them to the Industrial Council in regular session and recommended their adoption. The Industrial Council voted unanimously in favor of the rules, and on the advice and recommendation of the council, the Industrial Commissioner promulgated and adopted the Rules and Regulations which are now in effect.

The sub-committee has heard many appeals by physicians who were not satisfied with the ratings on qualifications assigned to them by the various medical compensation boards. On

the majority of these appeals, however, it was found that the ratings and qualifications given these physicians were proper and correct and those physicians who attended hearings before the committee, were in most instances convinced of the fairness of their rating, and the rulings of the Medical Compensation Boards were invariably sustained.

Many attempts have been made to solve the vexatious problem of the securing of authorization in operative cases. The law is not clear on this point, merely stating that if the authorization is withheld, the Commissioner should be appealed to. It is obvious that the Commissioner has no facilities for making such a decision nor will he assume either the medical or financial responsibility. The Committee, therefore, has taken the position that the doctor and hospital must act on their own responsibility and take the financial risk if the compensation claim is proven non-compensable. The Industrial Council and the Industrial Commissioner entertains the same view on this question.

The enforcement of the payment of medical and hospital bills by non-insured employers has caused great annoyance as the law is devoid of any enforcement or penalizing provision. The Industrial Board has ruled that it is without any authority or jurisdiction in this matter.

On receipt of complaints from physicians and hospitals about the non-payment of their bills by these employers, the Medical Registration Unit writes letters to these employers demanding payment of the bills. These letters demanding payment has resulted in the payment of many of such bills.

It is obvious that an amendment to Section 13 must be added containing an enforcement provision to compel payment of medical and hospital bills on cases where the employer failed to carry Compensation insurance.

The sub-committee submitted such an amendment to the Industrial Commissioner last year who presented it to the legislature for passage but the bill remained inactive in committee.

A number of physicians were denied recommendation for authorization by the various medical compensation Boards and these physicians filed appeals with the Industrial Council.

The sub-committee gave considerable time and consideration to the hearing of these appeals and presented the facts and its recommendations to the Council, sustaining in some instances the findings and decisions of the medical compensation boards and in a few instances recommending authorization.

The sub-committee from time to time was confronted with legal issues relating to the various provisions of the Act, and was instrumental through the Industrial Commissioner in securing several opinions rendered by the

Attorney General interpreting the law on the following points

Opinion defining the nature of evidence necessary to sustain a charge of solicitation

Opinion defining the rights, duties and limitations of the sub-committee in its relation to the Industrial Council

Opinion upholding the right of the Industrial Commissioner to charge a license fee to any town, city or municipality in the state covering the operation of a medical bureau

Opinion defining the extent of authority to be used by medical compensation boards and the latitude allowed in considering applications filed by physicians

Opinion indicating that lay owned or incorporated x-ray laboratories seeking licenses must be given consideration and acted upon as such provision is included in the law

Opinion indicating that the law fails to provide any penalty for imposition against a physician for treating injured employees without the authorization of the Industrial Commissioner and suggesting that the law be amended to provide that a violation of any of the provisions shall constitute a misdemeanor

Opinion indicating that the clause contained in the physician's application blanks purporting to waive certain rights of the applicant shall be eliminated

Opinion indicating that insurance carriers and employers shall pay all bills submitted by public hospitals in the City of New York which include services rendered by physicians because of a clause which appears in the City Charter which provides that such physicians "shall serve without compensation"

Opinion indicating that compensation x-ray and diagnostic laboratories may submit bills direct for services rendered by physicians employed by them

Opinion indicating that all bills for treatment rendered by physicians outside of the state, and which are contested by the carrier or employer must be referred to the medical bill calendar of the Department for consideration as the amendment to Section 13 does not apply

Opinion indicating that all appeals filed with the Industrial Council from the decisions and findings of the Medical Compensation Boards must be considered and passed upon by the Council, and that such matters may not be referred back to the Medical Boards

Opinion defining the authority of the Industrial Commissioner in adopting and promulgating rules regulating insurance carriers recommending authorized physicians to their policy holders and the procedure to be followed by medical inspectors and consultants employed by them

Opinion indicating that it is not necessary to be listed on the panel of authorized physicians for those who merely make physical examinations and give testimony for claimants at hearings, that the claimant may pay for such services, that only physicians as render treatment are stopped from receiving fees from claimants

Opinion indicating that the amendment to Section 13 does not apply to dentists, that the status of a dentist in compensation cases is the same as it was prior to the amendment.

The sub-committee also assisted the committee on rules for arbitration of medical and hospital bills composed of representatives of state and county medical societies and the Compensation Rating Board, which acts for the insurance carriers

A set of ten rules was adopted and established by this committee governing the procedure to be followed in the arbitration proceedings

The subjects covered by these rules are as follows

Rule indicating the method of filing objections to medical bills by insurance carriers and the time limitation

Rule indicating the form and the manner of filing a claim by a physician for improper transfer of treatment.

Rule indicating that the Medical Society and the Rating Board shall jointly prepare a calendar of cases and arrange time and place of hearing

Rule indicating the manner of selection of arbitrators

Rule relating to notices to interested parties on arbitration hearings

Rule indicating the form of agreement to arbitrate, to be signed by all parties in interest.

Rule providing for a recording clerk to make notes of the proceedings, and to administer the oath to the arbitrators

Rule providing for a two dollar minimum deposit by the claimant physician and the procedure to be followed in conducting hearings

Rule providing that all decisions be signed and acknowledged by the arbitrators and the method of mailing the decisions

Rule providing the manner in which the five per cent charge shall be collected from each litigant and the payment of a ten dollar *per diem* fee to each arbitrator

The set up is now complete and the machinery has been set in motion for the prompt arbitration of medical and hospital bills. The Medical Registration Unit has finished the checking of and the segregation of medical and hospital bills according to County and carrier. There are about twenty-five hundred bills which have been submitted to the Compensation Rating Board for the purpose of arranging calendars of hearings and the setting of the date, time, and place of such hearings

Under the provisions of the amendment to Section 13, the Industrial Commissioner organized a new unit in the Department of Labor known as "the Compensation Medical Registration Unit"

The work accomplished by this Unit from the date of its inception—July 1, 1935 to December 31, 1936—is indicated in the following statement

Annual Report of the
Compensation Medical Registration Unit
for the Calendar Year 1936

Number of physicians authorized—New York District	9,094
Number of physicians authorized—Albany District	1,431
Number of physicians authorized—Buffalo District	1,107
Number of physicians authorized—Syracuse District	1,218
Number of physicians authorized—Rochester District	953
TOTAL	13 803
Number of Medical Bureaus licensed	59
Number of Medical Bureaus approved	77
Number of Medical Bureaus withdrawn	1
Number of Medical Bureau applications pending	243
Number of Medical Bureaus refused.	29
Number of Medical Bureau licenses applied for	350
Number of Laboratories licensed	None
Number of Laboratory licenses applied for	7
Number of Laboratories approved	None
Number of Medical Bureau license fees paid	134
Total amount paid for Medical Bureau licenses	\$6 700 00
Number of Laboratory license fees paid	4
Total amount paid for Laboratory licenses	\$40 00
Number of Medical bills to be set for Arbitration Committee hearing	2 274
Number of hospital bills to be set for Arbitration Committee hearing	
Number of hearings held by Arbitration Committee	None
Number of Medical bills protested and adjusted without arbitration	1,691
Number of hospital bills protested and adjusted without arbitration	153
Number of Medical bills held pending receipt of further information	1 704
Number of hospital bills held pending receipt of further information	56
Number of self insurers' bills held pending receipt of further information	22 4
Doctors bills	
Hospital bills	
Number of no-insurance cases held pending receipt of further information	168
Doctors bills	
Hospital bills	
Number of self insurers bills adjusted	11
Doctors bills	28
Hospital bills	
Number of no-insurance cases adjusted	1
Doctors bills	42
Hospital bills	

The sub-committee has many other problems which have been presented to it for consideration and advice, some of which are listed below

Minimum medical fee schedule relating to upstate New York.

Hospital fee schedule.

Modification of physician's application blank

Consider many appeals recently received from employers from the decision of the medical compensation boards denying licenses to operate medical bureaus

Consider several requests from a few large employers for a modification of the fee schedule to apply in their particular plants because of the frequency of accidents

Arrange for a meeting with the Industrial Commissioner, representatives of insurance carriers, self-insured employers and insurance buyers to ascertain their actual experience resulting from the amendment to Section 13 and to secure the viewpoint of all interested parties relating to the medical situation as it exists at the present time The Industrial Commissioner has indicated his intention to secure from insurance carriers and self-insured employers comparative statements of medical costs covering the period of one year prior to the amendment to Section 13 and a like period subsequent to the amendment for discussion and consideration at this meeting

This brochure contains a complete recording of the more important questions that needed consideration and clarification for the proper administration of Chapters 258 and 930 of the Laws of 1935

Respectfully submitted,

SUB-COMMITTEE OF THE INDUSTRIAL COUNCIL

- DR. E. C. PODVIN, Chairman
- DR. WM LINDER
- DR. H E AYERS (Alternate)
- MR. THOS J CURTIS
- MR. MAX MEYER

MEMBERS OF THE STAFF OF THE INDUSTRIAL COMMISSIONER CO-OPERATING WITH AND ASSISTING THE SUB COMMITTEE

- MRS MAUD SWARTZ
Secretary—Department of Labor
- MR. HUGH J MURPHY
Medical Registrar

LATEST VITAMIN NEWS

Dr George R. Cowgill, Associate Professor of Physiological Chemistry at Yale University is the guest-speaker for the Greater New York Dietetic Association's annual dinner meeting, February 9, at the Pennsylvania Hotel Dr Cowgill, a well-known lecturer and author on vitamins, will

talk on the latest research news concerning vitamins

Professional friends interested in dietetics are invited to the six-thirty dinner (\$2 50 per plate) or to attend the lecture scheduled for eight-thirty which is open to the profession Informal dress

PNEUMONIA CASE REPORTS

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Report from the records of John H. Nugent, M.D., Southampton

"A man, sixty-eight years of age, developed symptoms of an acute upper respiratory infection on November 28. The following day there occurred the classical symptoms of pneumonia of sudden onset, a chill, pleurisy on the left side, blood-tinged sputum and a sharp elevation of temperature to 104°F.

"The patient was immediately taken to the hospital where sputum examination revealed the presence of Type I pneumococci and x-ray examination showed involvement of the entire left lung. The admission blood culture was negative, blood pressure was 200/100, pulse 120, respiration 28. The patient was markedly prostrated and quite delirious. Because of his age, marked pulmonary involvement and the existence of previously recognized chronic nephritis and myocarditis, the prognosis was considered very poor indeed.

"There was no history suggestive of allergic tendencies and both the intradermal and ophthalmic tests for horse serum sensitivity were negative so that serum treatment (concentrated antipneumococcus serum Type I, New York State Department of Health) was instituted with the least possible delay.

"At about 6 P.M., November 29 (the day of onset) one c.c. of serum diluted in a small volume of salt solution was administered

very slowly. This was well-tolerated and at 7 P.M. thirty-nine c.c. of concentrated serum were given. At 10:30 P.M. forty c.c. more were administered. The temperature commenced to fall following the second large dose and by 8 o'clock the following morning (2nd day of the illness) it had reached 102°F from which it fell more gradually to 100 during the next twenty-four hours. The fall in temperature was attended by general clinical evidence of improvement.

"The convalescent course was complicated by a short period of postpneumonic delirium but was otherwise uneventful. The patient was discharged from the hospital at the end of three weeks having made a complete recovery.

"The general treatment received by the patient was routine and supportive. It was felt that the serum in this instance had proved a specific remedy."

Dr. Nugent's case has been selected to illustrate the effective use of serum in the treatment of a case with an obviously grave prognosis. On the unfavorable side must be placed the age of the patient, the presence of a serious complicating condition, a very rapidly spreading infection and poor clinical condition. On the favorable side, in addition to the proper general treatment, are the facts that the patient sought medical care on the first day of his illness and that an adequate amount of serum was administered with the least possible delay.—Editor

Antipneumococcus Serum, Type II

Now Distributed by the New York State Department of Health

The distribution of concentrated anti-pneumococcus serum, Type II, was officially undertaken by the Division of Laboratories and Research of the New York State Department of Health on January 1, 1937. Because of the limited supply available, it is not possible to provide with Type II serum all of the district laboratory supply stations now maintaining Type I serum. In addition to the central laboratory in Albany and the branch laboratory in New York City, twenty-four local stations have been selected, mainly in the larger cities and in certain localities where there has been the greatest demand for the type I serum during the past year. The supply in each sta-

tion will be limited so that as small an amount as possible will be inactive, the remainder being held at the central laboratory for shipment. As more serum becomes available, additional stations will be supplied, especially those where an increased incidence of type II cases is indicated.

The concentrated type-II serum diluted with physiological salt solution in order to reduce the protein content and to facilitate slower administration, is distributed in packages of 20,000 units contained in twenty-four c.c. A dosage of from 160,000 to 200,000 units is advised as usually adequate for the treatment of a case although in certain instances an additional amount will be found necessary.

SOCIETY FOR THE PREVENTION OF ASPHYXIAL DEATH

Pneumatology

During the last ten years, the use of gases for therapeutic purposes has become increasingly important. The technician who delivers and operates oxygen therapy equipment in the home and in the hospital is a familiar figure. The highly trained rescue squads of the Police and Fire Departments, the Industries, and the Utilities whose technicians employ gases for the saving of life operate separately and appear in no way related either with the Oxygen Therapy group or with the quasi medical technician who administers gases for the control of pain. Each group, completely isolated one from the other are directed by medical personnel, having as little in common, i.e., the Internist, the Police Surgeon, the Anesthetist.

The bond of common interest, the common denominator, the factor which integrates these separate activities into a single work, namely the use of gases for therapeutic purposes to treat disease, to save life, to control pain, appears to have been entirely overlooked.

Granting the existence of this state of affairs, and assuming the desirability of uniting these scattered activities, at least from the standpoint of the dissemination of knowledge and the accumulation of experience, we may well ask the reason why these activities have not been united and offer a suggestion by means of which they may be brought together.

That the situation is recognized and is being met in a number of Universities and Hospitals by forward-looking physicians in charge of Departments of Anesthesia, who offer the services of this Department to care for the administration of gases, but serves to bring into relief a fundamental difficulty which by its very nature retards such a desirable integration. We refer to the restriction imposed upon the physician by the terminology, "anesthesia," the control of pain. Why should a physician whose specialty is limited to the control of pain, by reason of this calling, be requested to care for asphyxia neonatorum, carbon monoxide poisoning, submersion, terminal polio, or be asked to treat anoxemia due to acute pulmonary infection, or to cardiac decompensation? Is it not too much to expect that the nature of anesthesia is so generally understood that the ability of the anesthetist to treat asphyxia

is implied? Does not the terminology, "anesthesia" serve as a definite resistance to any effort which may be made to relieve the situation?

While a rose by any other name may smell as sweet, yet without a commonly accepted generic term, the horticulturist would promptly be brought to a standstill. Is it not greatly to be desired, therefore, that a descriptive generic term, to include the specific activities, now known as anesthesia, resuscitation and oxygen therapy, be promptly adopted.

In a search for such a term, among those responsible for the nomenclature of disease, the following terms have been suggested: Inhalational Therapy, Asphyxial Medicine, Apnotherapy, Aeriotherapy, Aerotherapy, and Pneumatotherapy.

The term selected should have a sound derivation, a certain familiarity in appearance and lend itself to an elaboration to cover the science, the technic, and the technical personnel.

Inhalation Therapy and Asphyxial Medicine do not lend themselves to accepting the suffix, "ology, or science." Aerotherapy and Aeriotherapy while descriptive of the use of gases for therapeutic purposes savor too much of aeronautics. Apnotherapy, signifying breathlessness, lacks familiarity. Pneumatotherapy remains, is suggestive, derived from the correct roots and suggests inclusiveness. "Pneumon," lung, and "pneumatics," the science of gases, is covered by the scientific term, "pneumatology," which is readily expanded into "pneumatotherapy" and "pneumatological technician."

Should "pneumatology" be found acceptable, it would include as a generic term, the specific activities referred to as anesthesia, resuscitation, and oxygen therapy. The objection that anesthesia includes also the use of local, conductive, rectal, and intravenous methods may be met by the fact that at least eighty per cent of all anesthetics administered are brought about by the use of such gases, as nitrous oxide, oxygen, cyclopropane, ethylene, ether, and chloroform—the vapors of the last two being regarded as gases, in practice. It is to be expected that the personnel engaged in the field covering the larger volume of patients, and providing routine material as well as a wide experimental background,

namely, anesthesia should provide the personnel from which the pneumatologist would be evolved. The pneumatologist would radiate instruction and control over the nonmedical personnel now engaged in the administration of anesthetics, oxygen therapy, and in resuscitation. The pneumatological technician would fall into his natural relationship to medical direction and

control. Owing to the scope of the field, the present competition existing between the technical and the medical group would be automatically eliminated.

As the first step, therefore, in the coordination of the disorganized field of gas therapy, which now exists, the acceptance of the generic term, "Pneumatology" is proposed.

EVILS OF CONTRACT PRACTICE

Contract practice, in this country, was born of geographic and social necessity. When certain pioneering industries, such as mining, lumbering and construction work, pushed beyond established settlements, such industries were obliged to provide whatever medical facilities were supplied to such isolated communities. This service varied widely in quality but was better than none.

Most modern types of contract practice lack this excuse of necessity. Instead of meeting a lack of facilities in an isolated locality they compete with adequate facilities already established. The motive of establishment is not the benefit of those receiving the service but the possibility of financial gain to those contracting for the delivery of the service, says the *AMA Journal*. Contract systems are now operated more often to reduce compensation costs, absenteeism, labor turnover, inefficiency and wage payments than to supply needed medical service.

This conclusion as to motive is justified by certain facts. The contract plans do not add to existing services. The features for which their founders fight hardest are those most profitable to industry but not always most helpful to the patients. The managers of the plan insist on choosing the physicians. This choice is determined more by the amounts paid physicians, the character of the medical testimony that will be given in damage suits and compensation cases, and ability to keep down costs than by professional qualifications or devotion to the patient's welfare. The patient is given little or no choice, the most desirable ethical practitioners in the community usually refusing to enter the contract group from which the patient must choose. Contract practice is at present almost universally accompanied by advertising, commercial bargaining, underbidding, subletting, coercion or plain racketeering, and all of these are

destructive ingredients in medical service.

If these flagrantly undesirable commercial features could be eliminated, the result of injecting contract practice into the present system of medical practice would still be injurious to the general character of medical service. Contract practice always is restricted to a selected group—generally of adult employees. It leaves uncared for the mass of children, aged, women, unemployed and those most in need of medical service. Such an exclusion, by reducing the field of private practice, inevitably lowers the quality of care it is possible to give to those outside the contract scheme. By thus lowering the standard of medical service in the field with which contract practice must be compared, this situation tends in turn to lower the standards that will be maintained under contract.

Contract medicine is almost exclusively curative medicine. It gives little attention to prevention. The amount of work demanded of each salaried physician is usually so great that he has little time for immunizations and other preventive measures. The restricted coverage makes it impossible to reach the children and others most in need of preventive service. The isolated group character of contract practice does not encourage the contract physicians to become interested in preventive work for an entire community.

Contract practice is so prone to a certain set of defects that they may almost be said to be inherent. Insufficient pay to overworked physicians encourages superficial service. When financial considerations such as compensation are dominant, incidents have been recounted in official investigations of unnecessary amputations to insure an earlier discharge and release from compensation payments, and the use of untrained laymen in giving medical care.

PAN AMERICAN MEDICAL ASSOCIATION

The Future of Pan American Medicine

Dr Kellogg, President of the New York Chapter, Dr Eller, Director General of the Pan American Medical Association, Dr Heyd, President of the American Medical Association, Dr Irving, Secty of the Medical Society of the State of New York, Dr DeSanctis, President of the County Medical Society of New York, Dr Ewing, Director of the General Memorial Hospital, New York, Dr Lewis, Professor of Surgery, Johns Hopkins University, Baltimore, Dr Alessandrini, Professor of Surgery, University of Chile, Santiago, Fellow members of the Pan American Medical Association and distinguished guests

It is a great honor and a cause of gratification for me to be able to address this distinguished group of my colleagues gathered here, both to do homage to that science, the flame of which we strive to carry forward, and to pay tribute to closer international relations and to the furtherance of that great idea of Pan Americanism so dear to the hearts of Simon Bolivar and San Martin

Characteristic of the growing solidarity among the physicians of the Western Hemisphere is the cordiality with which visiting physicians from Latin America are received by the officers and members of the Pan American Medical Association. So many Latin American physicians visit the hospitals and clinics of the United States that at times we fear that it is too much of a burden on our fellow members of the Association. Despite these great demands they have shown us every attention, and have given unstintingly of their time to arrange conferences with outstanding physicians and demonstrations of medical activities. We physicians of Latin America deeply appreciate this friendly and brotherly attitude, and you may be sure that we shall be equally diligent in these matters when you visit our respective countries. To speak for my Argentine colleagues who are present, as well as for myself, we will always cherish the memory of your generous hospitality and of our comradeship with you.

I am indebted not only to my colleagues of New York for their hospitality, but also to those of many other cities, especially for invitations that I have received from the

Chapters of the Pan American Medical Association in Philadelphia, Washington, D C, Chicago, Rochester, St Louis, Los Angeles, and San Francisco, as well as from other medical organizations. I fervently hope that the fraternal relationship so fully expressed in these invitations and in this gathering, may be indicative of the early development of a great "esprit de corps" among all physicians.

The distrust and uncertainty prevailing among the nations of the Old World are causes of deep anxiety and regret. For this reason it is all the more important that the nations of the New World should work in closer harmony to improve world conditions. Who knows but that perhaps our example and our success may serve as a guiding light for world conditions. Exemplified here tonight are the international cooperation and international friendship that is so necessary to solve the troubles of a sick world.

There is no profession which brings one closer to man and his family than the medical profession. Therefore, the physician can be a great and good influence on the people of his country. He can instill the ideals of international cooperation.

The practice of medicine should have no religious barriers or national boundaries. The care of the sick and the improvement of sanitation should be a collective responsibility of all nations. Therefore, international understanding and cooperation cannot be furthered better than through the field of medicine.

The Pan American Medical Association believes in the just and generous principles of Pan Americanism and in their power to advance the cause of human happiness throughout our hemisphere. These are the ideals to which we willingly dedicate the best efforts of our minds and hands. Speaking for my colleagues in the Argentine, I can assure you that we will cooperate with our best ability and strength.

The Pan American Medical Association looks back over eleven years of fruitful existence. During these years international medical congresses have been held in Havana, Panama City, Mexico City, Dallas (Texas), Puerto Rico, Rio de Janeiro, Sao

Address given by Dr José Arcé at a dinner given in his honor at the Metropolitan Club, New York City, January 11, 1937, by the New York Chapter of the Pan American Medical Association. Dr Arcé is Professor of Surgery and Dean of the University of Buenos Aires and President of the Argentine Chapter of the Pan American Medical Association.

Paulo, Brazil, and Venezuela. The next congress will begin on New Year's Day, 1938, at Havana, and I hope that all the physicians here tonight will be present, either as contributors of scientific papers or for the purpose of discussing the views of their colleagues from the three Americas. I plan to be present and I am sure that many of my colleagues from the Argentine will join me.

The purpose of these congresses is to blend the best practical medical thought and progressive ideals with the cultural influences of international contacts, reinforced by world-wide knowledge of the achievements and needs of the human race. They bring together, from all parts of the New World, men and women in various specialties and afford numerous opportunities for the presentation of the newest and best in medicine. As the eminent physician and former president of this Association, Dr. Chevalier Jackson, stated: "The Pan American Medical Association has no political, racial, religious or commercial aims. It is purely a scientific body of medical men. It is intended only as a means of discussion and of effort toward the solution of many problems of medical science."

It would be most inaccurate, however, if I created the belief that occasional congresses are the outstanding factor in the work of the Association. On the contrary, its activity is continuous. It is an international organization with chapters in many cities in the United States and in the twenty-one other countries of the Western Hemisphere. Scholarships are now being granted to graduate physicians enabling them to come to the United States for postgraduate study. As resources increase, it is proposed to give twenty-two such scholarships annually, one to a physician from every country in this hemisphere.

Most of you are acquainted with the plans of the Pan American Medical Association to promote postgraduate medical centers in the larger cities of the Western Hemisphere. The first of these institutions will be erected in New York, and I can say that Argentina will do everything possible to follow with a similar center as soon as possible. In these institutions physicians will be able to obtain instruction in all branches of medicine and surgery. Arrangements will be made to house the scholarship students. An important feature will be to have exchange professorships.

We realize that this project is a gigantic one, and will require tremendous efforts for achievement. However, the contributions to humanity which will result from

the fulfillment of such a creation makes it worthy of the cooperation of every single physician in the West Hemisphere.

No time could be more opportune for the realization of this project. Political conditions prevailing in European countries have resulted in a deterioration of the scientific values which were a credit to these countries in the past. Students are now looking to the Americas for scientific instruction, and we now find a steady flow of students here and proper provision should be made to accommodate their needs.

Such being the case, nothing could be more desirable than to have in New York the first great Pan American Post Graduate Medical School and Hospital, which is to be followed later by similar institutions in the Argentine, Brazil, Mexico, etc. During the last forty years, the United States has been able to draw to itself the best scientific investigators of the world, and today it finds itself moving beyond the achievements of its former mentors.

It is indeed inspiring that your distinguished President Roosevelt has, in a conference with your Director General, enthusiastically endorsed the plan of the Pan American Medical Association to create post graduate teaching centers in the different American republics. It is equally inspiring that the governments of all the Americas have expressed similar approval and support.

The people of this and other American nations should appreciate the work of the Pan American Medical Association. The efforts which are being put forth by the Directors of the Association are most worthy of praise, and I wish particularly to commend the work of the Director General, my great friend, Dr. Joseph Jordan Eller. We all realize that the tremendous energy and the foresight of this modest fellow have carried the Association from a small and unimportant one to the place of great importance it now holds in our twenty-two countries. We also happen to know that he has been unselfish with his time and money for the cause, his hospitality and friendly interest in the needs of the physicians visiting here are true examples of the spirit of Pan Americanism. The success of the cruise congresses, both scientifically and socially, was due in large measure to his efforts. His ability to make warm friends among important men in and outside of the medical profession gives great promise of his getting the support necessary for endowing the Pan American Post Graduate Medical School.

We physicians in the Argentine have been carrying on the ideals and purposes of the Association by promoting annual meetings in Buenos Aires, Montevideo, Rio de Janeiro, and Santiago, by receiving physicians of other Latin American countries as our guests and associates, and by sharing with them all the means of research at our disposal.

The Faculty of Medicine of Buenos Aires is about to construct a new and magnificent building for its headquarters, and it gives me satisfaction to announce in advance to you that it will have room for research activities available to the doctors of Argentina and of other American nations who may wish to go into the experimental field or to perfect their knowledge. Thus in Latin America also, physicians are taking a leading part in the virile and positive

spirit of progress toward complete international cooperation.

I cannot close my address without paying tribute to the memory of the late Dr Harlow Brooks, one of the world's great physicians and one of the great exponents of human fellowship. He was a former trustee of the Pan American Medical Association and a very dear friend of all of us. In commemoration of the true Pan American spirit which he had, and the work done by him for the Association from its inception, we have planned to create a fund in the Association to be known as the "Harlow Brooks' Memorial Post Graduate Medical Scholarship."

To all of you I give the good wishes of the people of my country, of my colleagues, and of myself. I thank you!

ARRESTS MADE IN THE 'EYESWINDLING RACKET'

The U S Post Office Department, according to the *Journal of the A.M.A.*, has made the following arrests in its investigation of the "eyeswindling racket," also known as the "glimmer racket," which has been carried on throughout the country for several years.

Boyce Bateman, Harold N Baxley, Samuel Birnstein, Samuel Bluestine, Iddien Reese Conner, Herbert C. Crangle, Lewis Fenburg, Samuel F Freedman, John Gray, William E. Hanecy, Harry Herman Holtkamp, Lawrence B Holtkamp, Lewis Levy, William Henry Londergon Jr, Frank Mackett Jr, J C. Murphy, Edward Robinson, alias Eddie A. William Shapiro, Jerry Theeman, Elliott George Wilkinson, Mathew O Wilkinson and Curtis J Yeager.

All have been charged with violating either federal or state laws in the operation of the racket. The *J.A.M.A.* published a news item concerning Birnstein, November 14, page 1643. Bluestine was sentenced to one year in jail. Gray was sentenced to ten years on the eyeswindling scheme and fifteen years for attempted murder in the penitentiary at Huntsville, Texas. Murphy received a sentence of five years in the Huntsville prison. Crangle was arrested November 7 and removed to Norfolk, Va., where the indictment is pending. Londergon, said to be a resident of Chicago, was arrested in Carroll, Iowa, November 21, and sentenced at Montezuma, November 30, to serve seven

years in the penitentiary at Fort Madison. Robinson also was arrested at Carroll, November 21, and held for removal to Asheville, N C, where he is wanted on a federal charge in connection with a swindle in that state.

In addition to the eyeswindling charge placed against these "fake eye specialists," the government has also accused them of using the mails to defraud. Three indictments have been returned against Mackett and others. The swindlers sent to Mackett the checks which they obtained from their victims and he deposited them in banks for collection, remitting the proceeds, less ten per cent commission, to the swindlers.

Mackett is an attorney in Milwaukee and in addition operates what is known as the Police and Sheriff's Association of America. In the latter operation he sends agents throughout the country to call on police chiefs and sheriffs and induce them to join his association, giving them free accident policies and in return procuring from the chiefs of police and sheriffs letters which are used in the solicitation of advertisements from the bank and business houses. Hanecy, indicted with Mackett in the collection of the checks, is also a lawyer.

The postoffice department states that more than 100 men have been engaged in the "glimmer racket."

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borne in mind that a patient may be suffering from one or more of the other known venereal diseases at the same time. It is not rare to find a patient whose history suggests that he was infected with syphilis, gonorrhea, chancroid, and lymphogranuloma inguinale simultaneously. It is therefore important not to overlook any of them.

General Statement

Lymphogranuloma inguinale is a venereal disease of inflammatory origin. The etiological agent is probably a filtrable virus. This virus may be transmitted experimentally to a number of animal species. The onset in humans is characterized by a small initial inoculatory lesion usually on the genitalia but may be elsewhere. This is followed by an inflammatory swelling of the regional lymph nodes, with involvement of the adjacent connective tissue and lymphatics. In the majority of cases multiple small foci of necrosis and suppuration occur within the lymph nodes. Constitutional symptoms appear, which include lassitude, fever, sweats, anorexia, loss of weight, transient rash, and arthralgias. The adenopathy in males generally is localized to the inguinal or inguocrural-iliac group of glands, giving rise to the inguinal bubo. In females the localization of the infection generally takes place chiefly in the intrapelvic glands and the subsequent inflammatory and cicatricial reaction set up in the endopelvic fascia leads to the genito-ano-rectal syndrome.

Initial lesion. A history of the initial lesion is obtainable in a minority of cases seen. The nature of the lesion is described as a papule, vesicle, small ulceration about the corona or a herpeticiform lesion on the shaft of the penis. A history of a urethritis which is nongonorrheal is likewise present occasionally. The initial lesion usually heals spontaneously. There are many cases, however, in which the primary lesion increases in size, breaks down, and forms chronic ulcerations which resemble chancres, chancroids or epitheliomata. This group of chronic primary lesions makes up a distinct division among the cases observed.

In women, the acute primary lesion appears as a small ulceration of the cervix or fourchette. The lesion is evanescent and usually heals spontaneously. It causes little or no discomfort and on that account is often overlooked by both patient and physician.

Distribution. The disease occurs more frequently among the colored and Porto Rican groups. The incidence among men appears to be greater than in women at

present. However, many white women have been observed with open lesions. A majority of white men infected give a history of sexual contact with a negress. The average age of the patients observed is about thirty years. The youngest case is nine years old, a Porto Rican female child. The oldest was a sixty year old white male.

Incubation period. This cannot be determined accurately. A probable time interval of between two to ten days may be considered as likely. In most of the cases where the primary lesion heals spontaneously the healing takes place within two weeks. The glandular enlargement occurs within four days to three weeks after the appearance of the initial lesion. The glands break down in about sixty per cent of the cases within three weeks after the enlargement is noted. The enlargement of the iliac glands can be made out in the majority of the cases.

The Frei test. The Frei test becomes positive about nine days after the infection has taken place and remains positive even after numerous attempts at desensitization.

Signs and Symptoms. The genital lesions in the male and external genital lesions in the female are obvious. However, the cervical lesions in the female and rectal lesions in both male and female may be observed by speculum examination and proctoscopy. The rectal lesions are usually secondary to a previous lymphatic involvement. They may, however, be primary and are observed in cases of pederasty. The rectal lesions may appear as early as six weeks after the onset of the primary lesion as an acute fulminating proctitis, or come on insidiously as a fibrous stricture without any symptoms twelve years after the primary lesion.

Pathology. A pathologic correlation of the histologic findings in all of the three clinical groups mentioned above has been made. The histologic lesion of the inguinal nodes although not pathognomonic, is considered suggestive and sufficiently characteristic for diagnosis. The lesion consists of an inflammatory nodule having a peripheral shell of epithelioid cells arranged in a palisaded manner. The central core is filled with inflammatory elements. Giant cells of the Langhans type may be present in the peripheral zone later in the disease. As the disease progresses the center undergoes necrosis, while in the periphery, accumulations of fibroblasts and plasma cells dominate the picture.

Histologic examination of the pelvic glands removed at autopsy showed lesions

Public Health News

LYMPHOGRANULOMA INGUINALE

BORRIS A. KORNBLITH, M.D., *New York City*

On November 17, 1936 the Department of Health of the City of New York inaugurated a new service to physicians in private practice, to hospitals, and clinics. This service consists of a clinic which will be devoted to the diagnosis of lymphogranuloma inguinale.

The Frei test is the most important means of establishing a diagnosis of this condition. This test is performed by the intradermal injection of 0.1 cc of suitably treated test material. The result is read forty-eight hours after injection. A positive reaction consists of a small (5-8 mm) tender nodule in the skin with an erythematous peripheral zone about one cm in diameter, which persists for one week or longer. A negative reaction leaves the skin entirely unaffected. The point of the needle puncture in the skin may possibly be seen, but within eight hours after injection the injected material is entirely absorbed leaving no trace locally.

The specificity of the Frei test has by this time been well-established. When a positive test is present, the patient either has lymphogranuloma inguinale at the time the test is performed, or has had the disease at one time or another. A positive Frei test may be elicited for many years possibly throughout life after infection has once taken place.

In introducing such diagnostic facilities, it is important to designate the type of clinical case which will be suitable for investigation. Cases which should be referred for a Frei test embrace a number of previously known clinical entities, all of which are recognized at present as likely to give a positive reaction to the Frei test. All these conditions which show a positive test may now be grouped under a single heading of lymphogranuloma inguinale. Lymphogranuloma, clinically, can appear as any of the following:

Genital Lesions

- 1 Herpes progenitalis
- 2 Multiple papular or chancroidal lesions about the corona
- 3 Paraphimosis with evanescent small ul-

cerative lesions at the frenulum (acute and chronic)

4 Chronic progressive ulcerative lesions of the glans penis or shaft of the penis (lymphogranuloma inguinale chancre)

5 Elephantiasis of the scrotum and penis or vulva

6 Chronic ulceration of the vulva especially the fourchette or cervix

7 Chronic pelvic fistulae

8 Rodent ulcer of the vulva

9 Elephantiasis of clitoris

10 Pelvic inflammation of obscure origin

11 So-called cases of esthiomene.

Glandular Lesions

1 Inguinal adenopathy (inflammatory) of obscure origin

2 Generalized lymphadenopathy resembling infectious mononucleosis

3 Pelvic lymphadenopathy

4 Extragenital lymphadenopathy of obscure origin with possible primary lesions on the tongue or hands

Rectal Lesions

1 Rectal stricture (inflammatory)

2 Anorectal syphiloma

3 Inflammatory lesions of the rectum and anus i.e. chronic and acute proctitis and proctitis, fistulae in ano, rectovaginal fistulae

4 Perianal condylomata

5 Localized ulcerative colitis of lower sigmoid and rectosigmoid

Since the disease in question has a definite venereal origin, laboratory tests to exclude other known venereal diseases are obligatory. A Wassermann test, darkfield examination of any open lesions, a smear for Ducrey bacilli, a smear for gonococci, and bacteriologic culture of purulent material aspirated from inguinal buboes are all indicated. Where a diagnosis is still uncertain, a biopsy of the local lesion, guinea pig inoculation of aspirated pus or massaged gland, and smears stained for tubercle bacilli may be done. It must be

From Central Clinic Bureau of Social Hygiene, Department of Health, City of New York

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings to this department one month in advance, for the information of members who may be interested

Broome County

AT THE MEETING OF THE Broome County Medical Society on Jan 12 a testimonial dinner was given in honor of Dr Henry D Watson, Secretary Emeritus, who has served as Secretary of this Society for a continuous period of twenty seven years. The speakers were Dr F M Miller, Dr S B Blakeley, Dr H I Johnston, Dr G C Vogt, "Travel Movies in Color," Dr F B Niles

Chautauqua County

The Chautauqua County Medical Society at the annual meeting in December at the White Inn, Fredonia, elected the officers for 1937 as follows

President, Dr W G Hayward, first vice-president, Dr C E Hallenbeck, second vice-president, Dr D W Buckmaster, secretary, Dr Edgar Bieber, treasurer, Dr F J Pfisterer. This will be Dr Bieber's twelfth term as secretary of the club

Motion pictures of various types of obstetrical procedure were shown by Dr E G Winkler of Buffalo

Chenango County

DR. EARL W WILCOX, coroner of Chenango County for more than twenty-five years, died at Chenango Memorial Hospital on Jan 6. He was sixty-five. He had been a practicing physician in Norwich thirty-five years. He was past president of the Chenango County Medical Society and a member of the staff of the Chenango Memorial Hospital

Columbia County

DR. CHARLES R. SKINNER, Secretary for many years of the Columbia County Medical Society, died at the Hudson City Hospital on Jan 1 of pneumonia. He was sixty-five

Delaware County

OFFICERS OF THE Delaware County Medical Society were elected at the annual banquet and business session in Delhi, December 15. Dr Doreen Corke was elected president, Dr Walter Eells, vice president, and

Dr Orin Q Flint secretary and treasurer. Eighteen attended the session

Erie County

DR. ARTHUR G BENNETT, prominent Buffalo eye specialist, member of the staff of half a dozen hospitals and professor emeritus of ophthalmology, University of Buffalo, died on Dec 28. He was seventy-six years old and had been ill several months, although he continued to practice during much of October

Hospital appointments include the staffs of Buffalo General, Deaconess, Lafayette General, Children's, City, Charity Eye and Ear Hospital, and the Craig Colony for Epileptics, Sonyea

Dr Bennett never ceased to treat the afflicted at various free dispensaries. There are hundreds of persons who, having been blind, now are able to see because of his professional skill

In 1893, Dr Bennett married Dr Alice Ross, also a graduate of the University of Buffalo, who practiced medicine as his associate for twenty-five years

Surviving Dr Bennett are his wife, a daughter, Mrs R Leslie Murray, and a son, Dr Arthur L Bennett, also an oculist, who has practiced for years with Dr Bennett

DR. JOHN A RAGONE, who as a children's specialist and pioneer in the use of heliotherapy in the treatment of tuberculosis achieved distinction, died of angina pectoris on Dec. 25 at his home in Buffalo. He was fifty-seven

Dr Ragone was a pioneer in maintaining child health in the schools and in the treatment of undernourished pupils as a disease preventive. He was credited with organizing in 1907 the first baby welfare service in the country

Dr Ragone was a member of the faculty of the University of Buffalo Medical school for twenty-nine years. He taught clinical medicine from 1907 to 1911, obstetrics from 1911 to 1917, and pediatrics from 1917 to the time of his death

Before embarking on his medical career, Dr Ragone established an enviable reputation as violinist and orchestra director

Greene County

THE JANUARY MEETING of the Medical

identical with those in the inguinal glands. Section through the Frei intradermal reaction showed a lesion similar to the ones mentioned above for the lymph nodes. It was thus observed that identical histologic features were present throughout all of these conditions, i.e. the inguinal, the pelvic, and skin lesions. All of these associated clinical entities thus find a common histologic correlation with their clinical counterparts. The histologic features of punch biopsy specimens of the rectal lesions and chronic genital lesions by themselves, however, were found inadequate for making any specific diagnosis except as they helped to exclude other known pathologic lesions, such as syphilis, tuberculosis, and carcinoma.

Laboratory findings The Wassermann

reaction in uncomplicated cases is negative. The Frei test is positive. The Dmelcos test is negative. Smears for Ducrey bacilli, gonococci, and tubercle bacilli are negative. Bacteriologic culture of the pus aspirated is sterile.

Treatment Numerous and varied methods of treatment have been reported with little success. Suffice it to say for the present that no standard method of therapy is available as yet, and that the general trend of treatment is toward the conservative side. The most encouraging results are now sought from specific biologic methods, i.e. the use of the Frei antigen as a therapeutic agent, used either intradermally, subcutaneously or intravenously. It is too soon, however, to recommend it for general use.

WATER, WATER EVERYWHERE

The fad for saturating the systems of patients with floods of water inspires a delicious flow of humor, without a dry line in it, from an Indiana medical man, Dr E O Harrold, of Marion, who takes his pen in hand and tells the editor of the *AMA Journal* all about it. His letter, in part, runs like this:

To the Editor—A few years ago I appealed to you as the fountainhead of information to know whether or not to give all my patients lots of physics. You did not reply but published my letter and I promptly received many replies from all over the country. Again my head is in a whirl. I find I am living in the center of the therapeutic Sahara Desert of the world. All of our patients are dehydrated, desiccated and destined to destruction. They are drying up. Water, water everywhere and every one short on water. It's a sad predicament. I find it a bit difficult to determine just how nearly my patients are about to blow away, but this difficulty does not seem to be shared by many others. A hospital patient who has not had an intravenous injection of fluid the first three hours after getting well settled down between his rubber sheets has probably just neglected to engage a physician. As the aquatic squad approaches a ward, the patients yell "Here come the Marines."

These hydration specialists have lots of backing. You can't read anything in medicine or the lay press without being informed that you should "push water." It's about the only remedy medicine offers that all the cultists have wholeheartedly accepted, so there must be a lot to it. Every time a country newspaper adds a new medical columnist, the town waterworks has to drill extra wells. Every time the schools adopt a new and up-to-date

physiology they have to add one or two fountains and some other plumbing. Some schools tried "water drinking drills" like fire drills but had to give them up because of shortage in facilities, and now we do not know and may never know whether it is safe to allow school children to face the future without these drinking drills. From my own children I learned that each child should become water conscious and react to the sight of a fountain very much as a dog does to a tree, except in reverse.

Every one knows that in case of a cold one should fairly swim in water. Since no one ever heard a fish sneeze, how can it be otherwise? Drinking lots of water for colds (with soda, apples or limes) always did look logical to me, for when your eyes, nose and lungs are spouting out pints of liquids it shows you are short on water or something. Besides, it seems reasonable to assume that if the water pouring out of these openings doesn't wash out the cold where it is, more water will start spouting elsewhere and wash it out where it isn't. Plenty of water in at the top and lots of physic from the bottom will often flush out a cold before it decides where to locate, fairly catching it in midair and totally off its guard. I'll admit that I have worried a bit about the effect to gravity on a very wet cold as compared to a dry one, and it hasn't always been clear to me how soaking up a cold till it drips will prevent it from extending itself rather aimlessly about *ad lib* and *cum laude*.

Even I admit that there are many instances when replacing lost or strayed fluids is highly indicated, but I have about arrived at the conclusion that there are a few other instances where the procedure is "the bunk" and I have definitely decided that thirst is a fair guide for water needs for one whose mind is clear and whose gullet is open.

their government with the Order of the British Empire. The ribbon was bestowed on her on the deck of the H M S *known* by the Prince of Wales, the present Duke of Windsor

Onondaga County

SEVENTY-FOUR REPRESENTATIVE CITIZENS of Onondaga county have been asked to serve on an honorary maternal welfare committee which will cooperate with the Onondaga Medical Society in a campaign to elevate the standards of maternity care and to reduce the maternal mortality rate in the county

The campaign will include professional educational activities, investigation of maternal mortalities, and a lay educational program.

The Onondaga Medical Society has completed a "refresher symposium in obstetrics" for practitioners in Onondaga county, and the fourth district branch of the New York State Nurses association is conducting a similar "refresher course" for private duty nurses

Ontario County

DR. WILLIAM WADDELL SKINNER of Geneva, seventy-six, one of the foremost physicians and surgeons in Western New York, died on Dec. 28

He was the pioneer surgeon in Geneva and for twenty years performed most of the operations there. He was consulting surgeon for Willard State Hospital and Geneva General Hospital

DR. C. W. GROVE, of Geneva, and newly elected officers of the Ontario County Medical Society, held the first meeting of the year on Jan. 12 in Canandaigua.

Dr. Arthur Hilton Paine, of Rochester, spoke on "Hematuria" at the scientific session.

St. Lawrence County

DR. HUGH A. GRANT, of Potsdam, who died on Dec. 16, was one of the Board of Directors of Clarkson College and was called the "father" of hockey at Clarkson, he was a director and staff physician of the Potsdam Hospital, and a director of the Citizens National Bank. The local newspaper says that he "has long been one of Potsdam's most capable and beloved physicians. To have Dr. Grant just enter a sick room seemed to restore the patient half way to health"

Warren County

DR. FRED GERSHOM FIELDING, a physician long prominent in the civic life of Glens Falls, died on Jan. 9 at his home, after a long illness. He was seventy

Dr. Fielding was one of the organizers of the Parks Hospital, and was active in the operation of the hospital for years. He became a member of the Glens Falls Hospital staff when it was organized and was president of the staff three years

He was a past president of the Warren County Medical Society and the fourth district of the State Medical Society

Westchester County

ORGANIZATION OF THE Yonkers Review Club, a group of younger physicians devoting their time to research work, is announced by the chairman, Dr. Amendes Al Morrone

The group is a unit of the Yonkers Academy of Medicine and includes fifteen members. The club plans to meet the third Tuesday of each month at the Professional Building

DR. CHARLES D. KAYSER, chief of the surgical staff of St. Joseph's Hospital, Yonkers, died on Dec. 31 at that hospital, where he had been a patient since Dec. 21, having suffered a paralytic stroke. He was sixty

Dr. Kayser had a large practice in Mount Vernon, Yonkers, and the North Bronx

At the time of the United States border trouble with Mexico, Dr. Kayser was a surgeon on the medical staff of the 71st Regiment. Later, when the United States entered the World War, he served as captain in the Medical Corps of the 105th Machine Gun Battalion, 27th Division, and saw service in France and Belgium. In addition to attaining the rank of major, he was decorated for bravery in the Battle of St. Souplet, in which he was gassed

THE YONKERS SOCIAL HYGIENE clinic treated 383 more patients in 1936 than in 1935, bringing the annual total to 8,625 persons, Health Commissioner Louis V. Waldron revealed at a session of the social hygiene committee of the Yonkers Tuberculosis and Health Association. Yonkers health and welfare leaders will attend a meeting sponsored by the Metropolitan Social Hygiene Council in New York on Feb. 3

Society of the County of Greene was held on Jan 12 at the New Saulpauugh Hotel at Catskill. Dr Eldridge H Campbell of Albany was the guest speaker and his topic, "The Diagnosis and Treatment of Common Thyroid Diseases."

Kings County

AT THE REQUEST OF THE Public Health Committee of the County Medical Society, arrangements have been made by the Brooklyn Tuberculosis and Health Association for a detailed study of all suspicious, active, and arrested cases of tuberculosis that were referred to private physicians during the high school chest x-ray survey, according to an announcement made over Station WBBC by Mrs Emma McLean, supervisor of health education for the association.

The purpose of the study, Mrs McLean stated, was to ascertain (1) whether the original diagnosis was subsequently confirmed, (2) whether adequate care has been provided and, if not, to assist in securing such care, (3) to visit home and school to check on mutual cooperation in helping to carry out physicians' recommendations, (4) to determine source of infection, if possible, and (5) to make a reasonably detailed sociological study of each case to ascertain whether common factors exist in a sufficiently large percentage to offer a clue to more adequate control of tuberculosis in the schools.

Madison County

THE RECENTLY ORGANIZED Women's Auxiliary of the Madison County Medical Society met at the Hotel Oneida on Dec 10 and elected officers as follows: President, Mrs Robert L Crockett, vice-presidents, Mrs J Frederick Rommel, Mrs Otto Pfaff, corresponding secretary, Mrs Robert H Ash, recording secretary, Mrs Richard Cuthbert, treasurer, Mrs Edmund L Finley, directors, Mrs Linn C Beebe, Mrs George F Mills.

Previous to the meeting the doctors and their wives had dinner and exchanged holidays gifts. Cards and bingo concluded the evening.

Monroe County

ON JANUARY 7 Dr Paul Dudley White, assistant professor of medicine at Harvard University and heart specialist, spoke twice before physicians' groups in Rochester.

At 11 A M Doctor White held a practitioners' clinic on heart diseases at Genesee

Hospital Luncheon was served after the clinic. Members of the Rochester Academy of Medicine heard Doctor White discuss "Cardiac Problems in General Practice" at the Academy in the evening.

New York County

DR. REGINALD M RAWLS, specialist in obstetrics and gynecology who was on the staff of the Woman's Hospital for thirty-five years, died of a heart attack on Dec 30 at the hospital. He was sixty-three.

DR JOSEPH E FULD, consulting surgeon at City Hospital, on Welfare Island and a specialist on hand injuries, died on Jan 3 at his home, 125 East Eighty-fourth Street. Dr Fuld, who was sixty-four, was stricken with a heart attack.

In 1926 Dr Fuld reported in *The Journal of the American Medical Association* a successful operation in which he transplanted a toe to replace a finger.

One-third of the middle finger of a man had been cut off while he was working a bread-slicing machine. Dr Fuld was called promptly enough to find a favorable opportunity for transplantation. The little toe of the right foot was chosen as the member to be substituted. The operation was termed by Dr Fuld as valuable not only in giving a more sightly hand but in giving those whose occupation requires exceptional use of the fingers an opportunity to continue their work.

DR CAROLINE F FINLEY, a trustee of the New York Infirmary for Women and Children, which she had served for many years as an active member of the medical staff, died after a brief illness of heart disease, on Dec 28.

In 1918, Dr Finley became one of the first three American women to receive commissions in the French Army and was decorated with the Croix de Guerre for her work as head of an advanced hospital unit and as an operating surgeon. The citation of the French Service de Sante read:

"Dr Finley, head of the American Surgical Mission located at d'Ognon, a woman remarkable for her sterling moral and professional qualities, has rendered the greatest services to the French and American wounded. She is distinguished with all her staff for her courage and scorn of danger during the bombardment of the hospital by enemy aviators."

The aid rendered by Dr Finley to British soldiers at Metz who had been released from German prison camps in 1918 was rewarded

The purified air is protected from contamination by placing sterilized screens at the entrance and by thoroughly sterilizing the garments of both doctor and patient. The instruments which have been sterilized by steam are placed in the room to be purified again and at the same time the air is going through the process.

Prof Gudin has substituted chemical for steam sterilization with the following advantages: there is perfect sterilization, material does not deteriorate, the process is more rapid and involves a minimum of labor and it is possible to sterilize such objects as the x-ray machine, electric light fixtures, and instruments for applying anesthetics.

The operating room is composed of two floors and is completely isolated by means of sterilized screens. The surgeon enters unclothed and in an ante-chamber dresses himself in sterile garments. The patient likewise undergoes a completely purifying treatment and is placed on a movable table which is then wheeled into the operating room proper. Fewer attendants are re-

quired since all objects in the room are germ-free.

The students and observers may watch the proceedings from the second floor and are thus able to obtain an unobstructed view. Since they are isolated, there is no danger that they may be contaminating the atmosphere. Lights placed directly in front of the surgeon and his attendants provide sufficient illumination to make all motions clearly visible.

Prof Gudin maintains that if this procedure is closely followed wounds will close without becoming red or inflamed, and will heal without leaving any scar at all. He has proved the efficacy of this new technique by many experiments, and in conclusion states, "Complete sterilization is a precise, scientific weapon in combating post-surgical infection."

"At first glance it may appear contrary to our present practice, but actually it is the full realization of the ideals conceived by Pasteur."

Hospital Congress in Paris in July

THE FIFTH INTERNATIONAL CONGRESS OF HOSPITALS will be held in Paris, France, on July 6-11. At the Congress in Rome, May 1935, the International Hospital Association decided to hold the 1937 sessions in Paris. Previous sessions had been held in Atlantic City, Vienna, and Knocke Sur Mer, Belgium. The meetings will occur during the International Exposition.

Dr. Malcolm T. MacEachern of the American College of Surgeons is vice-president of the International Hospital Association.

The meetings will include visits to some of the large hospitals, the Cancer Institute

and the principal agencies engaged in public health work. Scientific and pleasure tours will be conducted in various parts of France.

Persons attending the Congress will be granted important reductions in rates when traveling on French and foreign railroads. The Exposition authorities also will give special privileges to visitors.

The Chairman of the Committee on Arrangements for the Congress is M. Albert Chenevier, secretary-general of the Department of Public Assistance in Paris. Further information may be obtained from M. Chenevier, No. 3 Avenue Victoria, Paris IV, France.

Millions for New Hospital Projects

THE 1937 CAPITAL BUDGET submitted by Hospital Commissioner Goldwater calls for an expenditure of \$60,503,797 by the city of New York. Among the thirty-seven hospital projects is included erection of the following new buildings:

A 500-bed tuberculosis hospital in Queens near the Triborough Bridge, a tuberculosis hospital in the Bronx, for Brooklyn, a venereal diseases hospital, a contagious diseases hospital for the Bronx, a new 500-bed hospital for Harlem, and a 600-bed

hospital for the Brownsville-East New York section of Brooklyn. Construction of a consolidated dispensary for the hospitals on Welfare Island is the most urgent need.

Second in importance, building a convalescent day camp on the site of the old Welfare Island work-house. Also included are additional elevators to link the Queensboro Bridge with Welfare Island, added facilities at Riverside Hospital, a 300-bed psychopathic pavilion for Kings County Hospital, a new administration building for

Hospital News

Bellevue Opens New Laboratory For Tropical Diseases

A NEW LABORATORY FOR sub-tropical and tropical diseases has been opened at Bellevue Hospital, Dr S S Goldwater, Commissioner of Hospitals, announces

A three years' survey at Bellevue has shown that various tropical and sub-tropical diseases, parasitic infestations in particular, are common among the foreign population of New York City. They often remain undiagnosed because of lack of proper laboratory facilities. Many of the conditions are curable. In some instances, such as in hook-worm disease and trichinosis, small epidemics may be forestalled or controlled.

The new laboratory will be under the immediate supervision of Dr Douglas Symmers, General Director of Laboratories of the Department of Hospitals, and will be the immediate charge of Dr Harry Most of the New York University Medical College and Dr Amanda Hoff of Columbia University, both graduates of the London School of Tropical Medicine. The services

of this laboratory will be available to hospitals throughout the Department.

The laboratory has agreed to participate in the nation-wide survey of the United States Public Health Service to determine the incidence of trichinae in man, that is to say, the pork roundworm which causes the disease known as trichinosis and which follows the eating of improperly cooked pork infested by the worm.

The laboratory is prepared to study peculiar forms of malaria, including the cerebral variety encountered among the insane, the mental symptoms of which are curable if the cause is discovered in time, the occurrence of hook-worm, especially among Porto Ricans residing in New York City, various other intestinal parasites, obscure forms of leprosy, yaws, sprue, Delhi boil, Madura foot, Bilharzia and related fluke diseases, beri-beri, the Peruvian wart disease, both amoebic and bacillary dysentery, and trachoma.

Sterilizing an Entire Operating Room

PROF M GUDIN, of the faculty of surgery of Rio de Janeiro and a member of the Academy of Surgery in Paris, believes in going the whole distance when it comes to aseptic surgery. *Health Digest* abstracts an article from *Sintesis* (Mexico City) telling of some of his radical methods. After twenty-five years of following accepted aseptic practice, he is quoted as saying, "I reached the firm conviction that in spite of all precautions, it was impossible to avoid gaseous gangrene. Although doctors rigorously observed aseptic treatment, I have seen unfortunate cases resulting from the removal of even one stitch. Patients suffered from infections in the wounds, from meningitis, blood poisoning, or peritonitis, which frequently caused death."

In his long experience, Prof Gudín believes that the solution to the problem lies in absolute sterilization, carrying it to the extent of purifying the air to avoid contamination. The present system is very de-

ficient. Operations are performed with rubber gloves, bandages, instruments and thread that have been contaminated by exposure to septic air on flesh equally contaminated.

Air is a permanent cause of infection in operations. There are germs in the air and more are brought into the operating room by people, vehicles, and instruments.

In combating infection by air, operating rooms have been built with smooth walls, tile floors, and rounded corners to enable thorough cleaning. Even these precautions are insufficient. Infection can be avoided only when the operation is performed in an absolutely sterile atmosphere.

To attain this objective, Prof Gudín uses a machine manipulated by remote control. It is placed in an hermetically sealed room to neutralize toxic elements by means of specially treated ammonia. For the removal of all impurities, the air is passed through a solution of tartaric acid and sterilized water.

nounced Last year, Doctor Swan said, twenty-three ten year cures, out of forty-three reported as five year cures in 1930, were reported This year he was able to report twenty-one ten year cures out of thirty-five reported as five-year cures in 1931

Dr Thomas Jameson of Highland Hospital reported a twenty-eight year cure for one patient on whom he operated for stomach cancer in 1908.

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DR. J. ARNOLD DEVEER, who will join the staff of the Brooklyn Hospital as chief pathologist, was honored by fellow faculty members of the Long Island College of Medicine at a dinner in the Hotel Bossert, on Dec. 10

Dr J Sturdevant Read, toastmaster, and Dr Robert F Barber, director of surgery at the Kings County Hospital, complimented Dr deVeer, who has been affiliated with the college for fifteen years and who is an associate professor of pathology

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TWENTY-FIVE NURSES were present on Dec. 8, at Corning Hospital at a meeting of the Nurses Study Club to hear Dr Robert Hood speak on "Maternal Mortality and Obstetrical Analgesia"

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DR. FREDERICK J DRIESBACH, Livingston county coronor for the past forty years and a practicing physician at Dansville since 1889, has been re-elected president of the Dansville General Hospital

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DR. LAWRENCE F DRUMM was re-elected president of the Utica General Hospital staff at a meeting on Dec. 28

Other officers, also continued for their second year, were Vice-president, Dr Floyd G Nellis, secretary, Dr James I Farrell Jr

During a case discussion the new pron-tosil method of treatment similar to that used on the President's son, was outlined.

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DR. CHARLES D KAYSER, chief surgeon at St. Joseph's Hospital at Yonkers, died Dec. 31 at the hospital after a brief illness He was sixty years old.

Born in New York, he was graduated from the University of Pennsylvania Medi-

cal School in 1903, served as an intern at Howard Hospital, Philadelphia, and then did research work with Dr S Weir Mitchell, the neurologist. He came to Mount Vernon in 1905 From 1905 to 1916 he served as an instructor in anatomy at Fordham University Medical School

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NIGHT OPERATIONS ARE DANGEROUS, declares the *Modern Hospital* It is strongly suspected if a careful examination of morbidity and mortality statistics covering the so-called emergency operations performed from dark to dawn could be made that these percentages would be startlingly high

Inherent in night surgery are several factors peculiar to this time and type alone There is the emergency nature of the ailment, often present, just as frequently absent. The fatigue of the operator and his assisting staff, the real or imagined lack of time for a thorough study of the patient and the spirit of hurry, often unnecessary, all tend to breaks in technique and the exercise of faulty judgment Moreover, night is the only time when exacting surgical chiefs permit assistants to perform any solo work Herein lies at least one explanation for the frequency of night surgery

This factor represents an added danger to the patient Errors of diagnosis, disaster from infection and hemorrhage or any other unfavorable occurrence which befalls the night surgical patient just as much incriminate the chief surgeon as if he himself performed the operation A glance at the pathologists report on specimens removed from such patients will reveal to the hospital executive the truth as to the presence or absence of an emergency which required immediate surgical intervention

The less frequent the night laparotomy the better will it be for the patient and the hospital

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THE PRESBYTERIAN HOSPITAL of New York has begun the construction of a convalescent home at an estimated cost of \$155,000 on its King Street property opposite Glenville Road in Port Chester The Presbyterian Hospital and Columbia University sponsor an experimental station on the property, working with sheep and other domestic animals

Bellevue, and a new nurses' home for the same institution

Plans call for a new out-patient building for Kings County Hospital, substantial additions to Cumberland Hospital, a pavilion for contagious diseases at Queens General Hospital, new buildings for Sea View Hospital, permanent buildings at the Farm Colony, where 400 inmates are now housed in shacks, a new home for dependents on Welfare Island to replace the present antiquated structures, a new cancer hospital building on

Welfare Island, new quarters for the chronic disease hospital on welfare Island, and a tuberculosis pavilion at Kings County Hospital

Also, additional buildings and an out-patient clinic at Coney Island Hospital, a new out-patient building for Harlem Hospital, and a 100-bed increase in the capacity of the Municipal Sanitarium at Otisville.

This program was passed on by the Hospital Council of the City of New York at its meeting of December 15

Diseases Under Study at Rockefeller Institute

THE HOSPITAL OF THE Rockefeller Institute for Medical Research, at 66th St. and York Ave., New York City, is investigating certain diseases, and accepts selected cases that bear upon the subjects chosen for investigation. Suitable patients may be referred to the hospital by physicians willing to cooperate. No charges are made for treatment, room, board, or any other services. Physicians are asked to telephone (REgent 4-8000) or apply personally to the Resident Physician before sending patients. An ambulance will be sent if necessary. The following diseases are now under investigation:

I Blood Diseases—Aplastic, idiopathic pernicious, or severe microcytic anemia, sprue,

or severe glossitis and stomatitis without anemia.

II Nephritis—Nephritis in initial acute stages, nephrosis, arteriosclerotic nephritis, in both adults and young children.

III Heart Disease—Advanced heart failure in all age groups, but especially in older patients.

IV Rheumatic Fever—Any early acute form, arthritic or visceral, also acute sore throat and hemolytic streptococcal infections in rheumatic subjects.

V Chicken-Pox, Measles—Measles in pre-eruptive stage, chicken pox, encephalitis following measles, vaccinia, chicken pox, whooping cough or common cold.

VI Acute Respiratory Diseases—Acute lobar pneumonia and acute broncho-pneumonia in adults, both preferably in early stages. An oxygen chamber is available for suitable patients. Influenza in early stages.

Hospital Notes

HOSPITAL INSURANCE FOR WESTERN NEW YORK—The Hospital Service Corporation of Western New York went into operation Jan. 1, with headquarters in Buffalo. Carl M. Metzger is the executive director. The plan, which offers twenty-one days of hospital care, exclusive of physicians' fees, has been approved by the Medical Society of the County of Erie. The charter provides for service for Erie, Niagara, and Chautauqua counties. Eight hospitals in Buffalo, one in Lackawanna, and two in Niagara Falls are participating, each represented on the board of directors. The medical societies concerned are also represented on the board.

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A PRESS DISPATCH FROM SAN FRANCISCO, says that fathers are to receive due consideration in the new San Francisco Hospital, now under construction.

A special room in which prospective

fathers may pace the floor is included in the plans. Reading matter will be provided on "the future care of the baby, particularly as to bathing and dressing."

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THIRTY-ONE NEW five-year cures of cancer, bringing the total to more than two hundred recorded by Rochester hospitals, were reported to the New York State Committee of the American Society for the Control of Cancer, meeting for a scientific session in Genesee Hospital, on Dec. 8.

Dr. John M. Swan, executive secretary, reported comparative statistics which showed early diagnosis and treatment in Rochester hospitals by local physicians has brought relief without recurrence to many patients over five and ten year periods.

Forty-four cures without recurrence over a ten year period are now on record in Rochester hospitals, Doctor Swan an-

al fees occurs between a physician and a layman, or a physician and a physician in cases prohibited by the canons of ethics, or, as is the situation here, between a physician and a hospital. In the latter case an outside agency participates financially in the compensation of the physician licensed by the State to practice medicine. Inevitably such a method of division would lead to deterioration in the medical staffs of hospitals with attendant injury to the public. It would likewise subject some physicians to the temptation of overcharging their patients in order to meet the requirements of the hospital rule.

It is conceded even by the Salvation Army, the alternative beneficiary, which would take in the event that the disputed gifts were ineffectual, that no reputable hospital in the United States has applied the rule of division of fees or compulsory charity sought to be enforced by the testator in his will.

In the case of one of the hospitals which is a beneficiary here, it has been established that two hundred and eighty physicians and surgeons give their services free for the treatment of indigent patients. At the same time most of them use the facilities of the hospital for treatments of or operations upon patients who can afford to pay. The revenue derived from the renting of the rooms, operating rooms and other facilities enables the institution to support, to a large extent, its charitable activities in the treatment of free patients in dispensaries or in the hospital wards.

It is argued that serious difficulty would arise in the ascertainment, under the terms of the will, of the compensation received by the physician from paying patients for the services rendered in the hospital and those rendered before or after hospital treatment. It is urged that it would be impossible to properly allocate these charges so as to compute the basis upon which the ten per cent is to be determined. Certainly there would be a practical difficulty in this process. Ordinarily the difficulty in enforcing a condition might not be a ground for a determination of invalidity, but where, as here, it is mingled with a requirement that is unreasonable, unethical, and in violation of public policy, the court cannot sustain it.

The situation here finds a parallel in an assumed case, where there might be a legacy or trust to a bar association upon condition that any attorney using its library or conference rooms would pay to such bar association a percentage of his compensation derived from his client in whose interest he uses its facilities. That condition in the will would not only be almost impossible of enforcement in the allocation of the actual amount of compensation derived from the time spent in the association, but would involve the unethical and improper division of the attorney's professional fees. No one would dispute, with any pretense of logic or ethics, the invalidity of such a provision as applied to an attorney. Similarly the attempt of the testator here to fasten a new custom upon the medical profession is equally obnoxious and contrary to the best interests of the community.

The charitable purpose of the testator is obvious and his intention to benefit the hospitals which he selected clear. The difficulty, however, is that he attempted to impose a rule of compulsory charitable contributions upon others. The method which he devised to compel physicians to be charitable is bad and not entitled to legal recognition."

Diathermy Burn

A young man consulted a general practitioner with respect to complaints of pain in his lower back which radiated down the left thigh and leg. The doctor could find no objective evidence of injury and advised diathermy treatment. The doctor administered a twenty minute treatment setting up the machine so that one tin-foil electrode was under his right thigh as he sat in a chair. The other tin-foil electrode was placed on the wooden floor under his bare foot. A series of such treatments were given to the patient without any untoward happening and finally when the patient was undergoing such a treatment, and the electrodes had been in position for about five minutes the patient suddenly jumped from the chair and moving to one side, saying he had been burned. The doctor found that there was a burn on his thigh at the point where the electrode was attached. Examination showed that the injury had been caused by the rubber covering over the copper wire burning off from the copper wire which ran from the machine to the electrode. Before the treatment the doctor had looked at the said wire and it apparently had been in good order. The burn was about the size of a silver dollar and the doctor treated it from time to time for about three weeks, at the end of which time the burn had healed.

An action was brought against the doctor, charging him with having negligently caused the plaintiff to sustain a burn. An investigation of the matter revealed that the patient had made a claim for workmen's compensation with respect to the original condition for which he consulted the defendant. An award was finally made to him covering a period of disability which took in the time during which the defendant had administered all of the diathermy treatments and the time during which the burn had been treated.

Under the circumstances the facts of the compensation award was pleaded as a defense in the action. The case came on for trial before a judge without a jury and at the close of all the testimony the judge directed a verdict in favor of the defendant.

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Wills—Conditional Bequest to Hospital

A case* recently arose before the Surrogate's Court of New York County in which the question at issue was the validity of a certain condition attached to a gift made in a testator's will to certain hospitals. The decision handed down by the Court was one which should be of general interest to members of the medical profession.

Among the provisions of the Testator's will was a clause setting up a trust of \$200,000 in favor of the sister of the decedent. The will directed that the income from said sum was to be paid to the sister for life and until the time of her death it was in fact so paid. However, the will further provided that upon the death of the testator's sister the trustee should divide the trust fund into seven parts and pay over the income to certain designated charitable corporations. Two of those institutions named in the will were hospitals maintained as charitable institutions in the City of New York. The will specified that the gift to each of those hospitals was upon the following terms and conditions:

That each such institution (in case it shall be one in which physicians shall practice at any time) shall make a binding rule to the effect that any and all physicians at any time practicing for remuneration in the said respective institutions shall be required to and shall pay toward the maintenance and support of the said institution a sum of money equal to ten per cent of the gross fees which shall at any time be received by such physicians respectively for services performed by them in the said institutions. In the event that any one of the said institutions shall refuse to make such a binding rule or after having made such a binding rule shall thereafter abrogate the same or neglect to enforce it, then and in that event the trust so created shall cease to operate and the capital of the trust created for the benefit of such institution shall thereupon be turned over by my said Trustee to the Salvation Army. My said Trustee, however, shall be thoroughly protected as regards any payment made to any one of the said seven institutions until such time as it shall have actual knowledge that any one or more of the said seven institutions is not enforcing the rule above set forth, covering the contribution by physicians

The effect of the condition imposed upon the gifts to the hospitals was that those institutions would have been under the will required to establish a rule that all physicians practicing within those institutions should be required to pay to the respective hospital ten per cent of the gross fees received by the doctors in connection with services performed by them in the hospital.

Upon an accounting proceeding, the question of the validity of the conditions referred to was challenged by the hospitals. It was contended that the conditions specified in the will would require them to operate their hospitals in a manner contrary to public policy since the requirement would compel the division of fees by physicians in the manner commonly called "fee splitting" in violation of the canons of ethics in the medical profession. The hospitals also contended before the Surrogate that the rule contemplated by the testator would be unreasonable and impossible to enforce and that it would probably result in the resignation from the staffs of the hospital of various eminent physicians who would not care to participate in any such arrangement.

There was the further argument that if such an arrangement were imposed upon the physicians practicing at the hospitals they would in order to regain their losses impose upon their patients unnecessarily large fees.

Mr. Surrogate Foley, before whom the proceeding was heard, held that the conditions attached to the gifts to the hospitals were void and that the gifts were valid gifts to the said institutions free from the conditions which the testator sought to impose. In so ruling Surrogate Foley in the course of a well-written opinion stated in part:

In my opinion these contentions are correct and the condition sought to be imposed by the testator is contrary to public policy, unreasonable, impossible of performance, and void. I hold likewise that the condition may be stricken from the will and that the income may be paid to the two institutions that the trustee free from any conditions by the trustee free from

It is immaterial whether the division of med-

* Matter of Sterne, 147 Misc. 59

Across the Desk

Escape

OUR BOASTED CIVILIZATION has now reached such a pinnacle of perfection that thousands are trying to escape from it. Escape—that is the word that is being used more and more to explain our behavior. It is used to explain why we burn up gasoline at sixty miles an hour, tearing through rural scenery to consume an indifferent dinner at some late hour, far, far from home. That, we are told, is what explains it. It is far from home. Escape! The weak man fortifies his soul with artificial stimulation and escapes from his inferiority complex. With a high-powered car under his hand, he becomes a king, or, higher yet, a fuhrer, a duce, until he meets another similarly exalted dictator, and both may escape from the world and its worries entirely, in a crash of rending and writhing steel.

The soothing influence of Lady Nicotine permits us to forget our troubles and beatifically build the air-castles of our dreams in the soft, grey clouds of billowing smoke, but the huge police bonfires of tons of marijuana weed, otherwise known as hemp or bhang, testify to the fevered desire of other misguided souls to escape even further—into purple realms of half-insanity where everything wrong is right, all inhibitions are repealed, and a satonic paradise is realized.

Even the familiar household radio, we are assured, takes us out of our humdrum lives into spheres of music, humor, and other forms of entertainment, and is really a vehicle of escape. The widespread, almost universal, desire to get away from ourselves is seen in the fact that we are surrounded with these escape mechanisms. No previous era in the history of the world has ever seen anything like it. We seem to be in a mad scramble to elude reality. How happy our civilization must be when so many of its improvements are designed to make us forget it.

Movies Lift Us into Other Worlds

Perhaps the most potent escape mechanism of them all is the movie. The spectator

identifies himself or herself with the character on the screen and lives in the romance or intrigue played out in the flickering lights. What a disagreeable jolt it must be when the play ends, husband and wife turn and look at each other, he realizes that she is no Mae West, and she realizes that he is no Gary Cooper. Back they must go to the drab routine of actuality until another chance to escape. That this is no mere fancy was shown by the wave of feminine suicides following the death of Rudolph Valentino. Their dream-partner was gone, and they could not endure a world without him. One way of escape was cut off, so they took another.

What makes the mischief is the fact that the fugitive from reality finally is happy only when he is in his other-world. He becomes out of adjustment with real life. His home, his family, his work, are things to escape, to evade. He grows unstable, incompetent in ordinary matters, lazy and useless. He or she drifts into physical or mental ill-health, and cure or relief is often difficult.

Have We Grown Softer?

Certainly no one can say that our civilization is duller or less interesting than that of a hundred years ago. We have a thousand interests that were unknown to our grandfathers—why, then, do we grow so tired of it all that we must escape from it at any cost? Is it possible that we may find the answer by looking within ourselves? Have we grown softer? The Americans of earlier days had a hard, ironbound philosophy of life that we do not care for, it may be, but at least they expected their existence to be full of difficulties, they believed that "man is born to trouble as the sparks fly upward," so they met life like men and women, without trying to evade or elude it, and that is one reason why we have our magnificent America of today. In many and many a town in this Empire State are spots where the men defended their log cabins from yelling, painted savages while their women loaded the muskets and passed them to

Alleged Failure to Deliver Placenta Intact

A doctor, who in the course of his practice handled a considerable number of obstetrical cases, was consulted by a woman in her early thirties who was about three months pregnant, and she requested him to assume the care of her. The doctor had treated the same woman previously for various conditions including endocervicitis and endometritis. The doctor saw the patient approximately once a month and in due course she entered a hospital and was delivered by him of a healthy living child. The delivery was a normal easy one, with the placenta delivered intact. The convalescence of the patient at the hospital was uneventful except for a few minor complaints of pain in the legs. She was discharged twelve days after delivery. The doctor never cared for the patient after that date.

It was later learned by the doctor that about two months after she left the hospital she had entered a sanitarium and had undergone an operation under a diagnosis of retained secundines. It was the opinion of the physician that the case was one in which the complications had been caused by a succussory placenta.

The patient and her husband brought a malpractice action against the doctor in which the charge was made that the defendant had negligently failed to remove the entire afterbirth.

When the case came on for trial it was assigned in its order for trial, and just as the jury was about to be chosen, plaintiff's attorney made an application for an adjournment making the claim that he had been unable to subpoena an important medical witness. The court, however, denied the application and when the plaintiff failed to proceed with the trial without the witness, the action was dismissed.

Treatment of Cyst

A fifteen year old girl was brought by her mother to the office of a general practitioner with complaints of a painful condition about the left ear. The doctor found she had a cyst of about three weeks duration, but she had no fever. He cut off her hair about the cyst and painted the area with tincture of iodine and then under a novocain anesthetic he incised around the cyst and removed it completely. He found no pus, and deciding there was no need for a drain, he sutured the edges together and applied a dry dressing. The patient returned every second day and the wound was re-dressed until on the fourth visit the doctor found signs of infection. He removed the sutures and pus was emitted. On that occasion the wound was left open and re-dressed, and the patient's condition went on satisfactorily for about ten days further when in response to a call the doctor went to the patient's home where he found the girl in bed with a temperature of 101°F. Again the wound was reopened, a drain was inserted, and a dressing was applied.

The next day the doctor received word that another physician had been called to take over the case, so he never saw the girl again.

A malpractice action was brought on behalf of the girl against the doctor in which the complaint specified that the defendant had failed to diagnose and treat properly a mastoid condition. A notice of trial was served by the plaintiff's attorney but he never filed the necessary papers to place the case on the calendar of the court, and in due time the case was disposed of by an order of dismissal granted by reason of the failure of the plaintiff to diligently prosecute the case.

MEETING FOR CARDIAC STUDY

A meeting of the New York Heart Association (Heart Committee of the New York Tuberculosis and Health Association) will be held at the New York Academy of Medicine, Room 550, on February 9 at 8 30 P. M., with Dr. Ernst P. Boas, Chairman of the New York Heart Association, presiding. The meeting is open to all physicians.

Following the presentation of a paper on "Clinic Studies of Venous Pressure" by Dr. John L. Caughey, Jr., discussion will be

opened by Dr. Arthur M. Fishberg. Two papers will be offered on "The Effect of the Xanthines on the Coronary Circulation," Dr. Nathaniel T. Kwit presenting "The Xanthines in the Treatment of Cardiac Pain," and Dr. Janet Travell "Theophylline in Experimental Myocardial Infraction." Discussion of these papers will be opened by Dr. Arthur C. DeGraff.

At this time the Annual Meeting of the New York Heart Association will also be held.

for active service. President-Elect Edmund D. Clark of our association urged this point.

Unfortunately, we are told, doctor's wives often shun such committee work on the grounds that it is not fitting for them to be thus active, nevertheless, it is a well-known fact that among the members of your clubs are the wives of hostile nonmedical practitioners who seek membership on such committees and who, therefore, exert a strong influence in favor of legislation hostile to the medical profession.

Another rather intriguing idea advanced by Dr. Emerson is "that you cordially invite to your meetings the wives of the many excellent physicians who have not joined the Indiana State Medical Association. You may by this method be the indirect means of converting the latter. We need them."

Wisconsin's Example

On the splendid work of informing the public on health matters our auxiliaries are already launched. Dr. Emerson, in speaking on this point, told of the excellent program of the Wisconsin Auxiliary.

The great need of the public is education in the truth concerning the cure, control, and prevention of disease. In this field the auxiliary can prove most helpful. By teaching the public the value of excellent medicine they can do far more to defeat hostile legislation than by any direct political action.

The public never seems to realize, because they are so often told otherwise, that the members of the State Medical Association ask nothing which benefits them directly or indirectly, on the contrary, that which doctors so insistently demand always tends to eliminate disease and, therefore, to lessen medical practice. This educational problem may be approached in various useful ways.

The Wisconsin Auxiliary, I am told, organizes classes among its own members who study various aspects of social medicine, mental hygiene, the problems of state medicine, poor relief, etc., and that later its local branches, working under the direction of the proper committee of the State Association, organize and sponsor public meetings, demonstrations, exhibits, for community education in these subjects, also, that they maintain a bureau through which lay organizations may obtain suitable speakers for their meetings.

THE PASSING OF "CHOLERA INFANTUM"

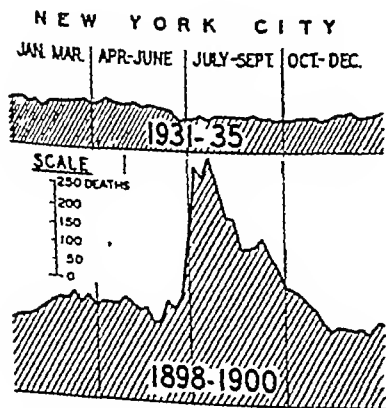
A chill of terror used to strike the hearts of mothers at the very words "cholera infantum" during the first year of their babies' lives. Each summer, as the *Bulletin* of the New York City Health Department recalls, saw thousands of these little victims die and there seemed no way of conquering the scourge. Medical science had

looked upon the disease as a specific entity, in fact after the remarkable bacteriological discoveries during the eighties, laboratory workers sought to discover the specific causative agent. To Park and Holt goes the credit for demonstrating conclusively that there is no specific germ of "cholera infantum," but that diarrhoeal disease in infants is largely due to milk containing an excessive number of ordinary dirt bacteria. With this fact as a basis the control of summer diarrhoea resolved itself largely into an effort to provide a safe and clean milk supply.

Some idea of the role played in infant mortality by summer diarrhea may be gained from a study of the graph showing the average annual infant deaths in New York City, by weeks, in 1898-1900 and in 1931-35.

The graph shows clearly how, until about ten or fifteen years ago, the number of infant deaths rose sharply each summer.

The rise during the summer has become progressively less marked until now the infant mortality is invariably lower in summer than at any other time.



the fighters without a tremor of cowardice. They expected life to be like that. But now we are bored, ennuied. Life is not amusing enough, so we must escape from it.

The folks who figure up the health statistics find that more and more people die because their hearts fail. We might say that they haven't the heart to live. So one of the tasks of the medical men now is to find a way to strengthen our hearts,

and make them stand up to their work better, and longer. The heart, the *cour*, used to be thought the seat of courage, and perhaps what we need, along with stronger hearts to meet our physical trials, is a better outfit of the plain, old-fashioned courage, the grit, yes, let's say it, the "guts" that carried the men and women of those days through scenes of blood and fire that we never know.

The Auxiliaries Mean Business

ANY FOLKS WHO THINK that the Women's Auxiliaries of the County Medical Societies now forming rapidly all around the State are organizing merely for social and recreational purposes are going to find themselves vastly mistaken. True, they are having their bridge and theater parties, where they will come to know each other better, but the reports of their meetings show that they are listening to speakers on serious medical and health topics, and are preparing to aid the campaigns of the county societies in their eternal warfare with disease.

Take an item in the Syracuse papers of January 3. "Arrangements have been completed," it ran, "for the opening dinner and mass meeting of the lay educational portion of the maternal welfare campaign." Who had charge of all the arrangements for the dinner? The Women's Auxiliary of the Onondaga Medical Society. And what is more, we are informed, the Auxiliary is also making arrangements with the various lay organizations of the county for speaking engagements, by which physicians of the county society will appear before social and service clubs to explain the objectives of the maternal welfare campaign and tell how each one can help. And this is only one county. The other auxiliaries are also busy along similar lines.

A few weeks ago the state Auxiliary of Indiana asked a leading member of the State Medical Society, Dr. Charles P. Emerson, of Indianapolis, to address them on the topic "What Can the Women's Auxiliary Contribute to the Practice of Medicine?" At the rate that our own auxiliaries are going, perhaps Indiana will be able to learn something from New York, but, in the meantime, it may be of interest to listen to

the voice of Indiana, and, if advisable, to take a leaf from their book.

A Wide Field of Influence Open

One suggestion made by Dr. Emerson was given to him by the President-Elect of their State Medical Society, so it has double backing. It is that the members of the Auxiliary use their influence in helpful ways, not alone in the Auxiliary, but in the other clubs, societies, and organizations where they may happen to belong. Serious questions are now up that affect the medical profession, sinister influences and movements threaten, it is an hour of crisis, and to sway these clubs and societies to the right side would help mightily. Dr. Emerson's words are worth quoting.

Medical politics is one of the most dangerous of the avocations of physicians, yet since we Americans live in a society the fundamental organization of which is political, our profession cannot escape. State medicine is threatening us, hostile medical cults are trying through political means to exploit the already prejudiced public, and only in the political arena can both dangers be averted.

Medical auxiliaries as such should not directly engage in any political activity, since they cannot present the medical side with authority. There are, however, ways in which the auxiliary can be of great assistance politically.

Practically all of you belong to some other organizations or clubs which have legislative committees. In your own fields you can speak with authority. Some of you are graduate nurses, others are trained social workers. Both groups have nation-wide organizations.

The majority of you belong to federated women's clubs and parent-teacher associations. These always exert a powerful influence over legislation. On the proper committees of these clubs the wives of physicians might well enlist

Theory and Practice of Psychiatry By William S Sadler, M D Quarto of 1231 pages St. Louis, The C V Mosby Company, 1936 Cloth, \$10.00

This is a large volume of 1231 pages in which much of the subject matter deals with the non-institution types of mental disease, the kind one treats in the office. The book is, therefore, quite different from the regulation type of textbook on psychiatry. The conviction is expressed "that the mental hygiene problem will never be adequately solved—unless the entire medical profession awakens to an interest in the increasing army of those who are afflicted with neuroticism, emotional disturbances, personality disorders and the more serious psychoses." An appeal is addressed to the psychiatric and other specialists and the general practitioner to be ever mindful of the need to practice mental hygiene. The author expresses the opinion, which is shared by many psychiatrists, that the practice of mental hygiene could be advantageously broadened.

The author seems to be neither a radical nor an ultra conservative but is rather an exponent of the "American School of Psychiatry," the so-called "middle-of-the-roads."

In part I, among other matters, are discussed psychological principles, mechanisms, symptoms, and the examination of the patient, in part II there is a lengthy discussion of personality development through the different age groups, part III takes up the neuroses at some length, over 300 pages, part IV considers the psychoses, 130 pages, part V is given over to the subject of psychotherapeutics, about 230 pages.

This book will not please every reader but there should be help in it for every physician and others interested in the welfare of nervous and mental patients. It is different from most other books on the subject of mental disease in that much space is given to a study of the patient as a whole, with his various reactions and personality deviations and suggested lines of treatment.

In the back of the book is a helpful dictionary of terms and, everything considered, it should be a helpful addition to any psychiatric library.

A. E. SOPER

Passive Vascular Exercises and the Conservative Management of Obliterative Arterial Diseases of the Extremities By Louis G Herrmann, M D Octavo of 288 pages, illustrated. Philadelphia, J B Lippincott Company, 1936 Cloth, \$4.00

With the recent increasing interest in diseases of peripheral blood vessels, a

monograph reviewing the widely growing literature on this subject is a welcome addition to the physician's library.

The book contains an excellent historical review of work done with physical alterations in environmental pressure. One notes progressive mechanical improvements in time, and Herrmann's work consists of the perfection of a mechanical device which automatically alternates these environmental pressures.

The author's first experimental report showed the beneficial effects of using intermittent periods of negative pressure alone. Simultaneously with the author's early report, there appeared the work of Landis and Gibbon with the use of both suction and pressure. The book contains a detailed description of the work from both schools and appears to be intended to establish the author's priority.

Herrmann had observed undesirable effects from positive pressure, and felt that this phase of treatment was associated with such dangers as spreading infection and the production of phlebitis. In his earliest report he seems to have discarded the phase of positive pressure for he is "convinced that true beneficial effects are obtained from the action of intermittent negative pressure" (quoting author). The reviewer is unable to understand why the positive phase was again introduced.

The book does not contain sufficient photographs of conditions before and after treatment, commensurate with the extent of the author's experience. Although he attempts to present a convincing argument for the value of this mechanical method of treatment, its evaluation will have to await further studies both by the author and workers in other clinics. So far, publications appearing from other groups have not been as enthusiastic as the author's.

Any one desirous of being posted on the latest developments in the treatment of peripheral vascular disease must read this book.

WILLIAM S COLLENS

The Study of Anatomy Written for the Medical Student. By S E Whitnall, M D Third edition Duodecimo of 113 pages Baltimore, William Wood and Company 1936 Cloth, \$1.75

This is the third edition of a small volume containing seven chapters which deal with the Nature of Anatomy, Practical Methods of Study, Books of Reference, Teachers and Lectures, Examinations, General Reading and Bibliography. The work is not a dissecting manual, nor does it discuss anatomy in the usual manner. It is a lecturer's

Books

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RECEIVED

Cosmetic Dermatology With dictionary of ingredients, discussion of anatomic, physiologic, and pharmacologic bases of cosmetic application, "shelf-tested" formulae, and appendices on odor and color in cosmetics. By Herman Goodman, M.D. First edition. Octavo of 591 pages. New York, McGraw-Hill Book Company, 1936. Cloth, \$5.00.

Food and the Principles of Dietetics By Robert Hutchison, M.D. and V. H. Mottram, M.A. Eighth edition. Octavo of 634 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$6.75.

Applied Dietetics The Planning and Teaching of Normal and Therapeutic Diets. By Frances Stern. Quarto of 263 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1936. Cloth, \$3.50.

Skin Diseases in Children. By George M. MacKee, M.D. & Anthony C. Cipollaro, M.D. Octavo of 345 pages, illustrated. New York, Paul B. Hoeber, Inc., 1936. Cloth, \$5.50.

Approaching Motherhood Questions and Answers of Maternity. By George L. Brodhead, M.D. Fourth Revised Edition. Duodecimo of 196 pages. New York, Paul B. Hoeber, Inc., 1936. Cloth, \$1.50.

The Principles of Bacteriology and Immunity By W. W. C. Topley, M.D. & G. S. Wilson, M.D. Second edition. Quarto of 1645 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$12.00.

Surgery for Dental Students By Philip H. Mitchiner, M.D., Clement E. Shattock, M.D., Edward G. Slesinger, M.S. & Cecil P. G. Wakeley, D.Sc. Octavo of 364 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$4.75.

A Synopsis of Surgical Anatomy By Alexander Lee McGregor, F.R.C.S. Third edition. Duodecimo of 664 pages, illustrated. Baltimore, William Wood and Company, 1936. Cloth, \$6.00.

Diseases of the Coronary Arteries and Cardiac Pain. Edited by Robert L. Levy, M.D. Octavo of 445 pages, illustrated. New York, The Macmillan Company, 1936. Cloth, \$6.00.

Oral Diagnosis and Treatment Planning. A Textbook for Students and D.D.S. Practitioners of Dentistry and Medicine. By Samuel C. Miller, Octavo of 620 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., Inc., 1936. Cloth, \$7.50.

International Clinics A quarterly of illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. Edited by Louis Hamman, M.D. Volume 4, 46th Series, 1936. Octavo of 352 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1936. Cloth.

A Textbook of Medicine. By Charles P. Emerson, M.D. Quarto of 1296 pages. Philadelphia, J. B. Lippincott Company, 1936. Cloth, \$8.00.

REVIEWS

Bacteriology in Relation to Clinical Medicine Theoretical and Applied For Students, Laboratory Workers and Practitioners in Medicine and Public Health. By M. N. De, M.R.C.P. & K. D. Chatterjee, M.B. Quarto of 599 pages, illustrated. Calcutta, The "Statesman" Press, 1935. Cloth, 30/.

This text book differs from the standard American texts on bacteriology in the conciseness of presentation of facts, and in the profuseness and excellence of its illustrations. For the medical student and the physician with no special training in bacteriology it is sufficiently complete to make it a valuable book for study and reference.

The theoretical chapters are admirable in their clarity. The bearing of their significance to clinical problems is noted everywhere. The technical procedures are included in the sections dealing with various subjects and are precise in their details and easy to follow. There is no bibliography.

Several minor errors occur, which do not, however, detract from the value of the book. Among them is the reference to the pathology of rickets in its relation to tuberculous infection. The work of Abel on tetanus is no doubt too recent to have been included.

BERNARD ZUGER

ORDERING BOOKS

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CLINICAL EVALUATION OF PROTAMINE INSULINHARRY G. JACOBI, M.D., *New York City**Associate Attending Physician, Lenox Hill Hospital*

In presenting observations on any new preparation, one must be careful to avoid unwarranted claims and inferences resulting from overenthusiasm. At the same time and by this very token, proper attention must be given to the matter of detail in order to insure a common standard of comparison of the results obtained by various investigators in the field.

We therefore feel that for the proper clinical evaluation of protamine insulin a thorough familiarity with the following essentials is necessary: (1) The actions and reactions resulting from the use of this preparation. (2) The indications and contraindications for its use. (3) The most practical method thus far evolved for calculating the dosage of the protamine insulin and the best time for its administration. (4) Other factors that may influence the blood sugar level and which may be erroneously interpreted as protamine insulin effect. (5) Whether protamine insulin after injection into the tissues, has a uniform rate of absorption and liberation and whether it has a cumulative action.

Origin of Protamine Insulin

As regards the history of protamine insulin, it may be briefly stated that it is the precipitate formed by the action of insulin hydrochloride with monopro-

amine compounds, and was first introduced by a group of Danish investigators¹ who were searching for a preparation which would give a more sustained lowering of the blood sugar than that obtained by the use of regular insulin. The protamine insulin resulting from this precipitation, after being properly buffered, was found to be relatively insoluble in tissue fluids, causing the insulin to be liberated slowly and over a prolonged period of time.

Further investigation showed that such substances as calcium and zinc had a tendency to increase this prolonged effect of the insulin action. Various combinations of protamine insulin with calcium and zinc were tried clinically in an attempt to see which had the most prolonged lowering effect on the blood sugar. The preparation which was finally decided upon is furnished as a five c.c. vial of protamine and insulin, prepared by mixing insulin containing protamine and zinc with a buffered solution in such a manner that each cubic centimeter, as supplied, contains forty units of insulin and approximately 0.08 mg. of zinc in combination with protamine in a precipitated form. The active material is present in the finely divided insoluble, white precipitate and not in the clear supernatant fluid. It is of the utmost importance, therefore, that an equal proportion of the precipitate be present in each dose injected.

Read at The Symposium on Protamine Insulin, Fourth Medical Division of Bellevue Hospital, December 15, 1936

attempt to make the study of anatomy interesting to the beginning student and to teachers of anatomy

It contains among other things the anonymous poem "To A Skeleton"

The author proves that there is something intensely interesting in the study of anatomy

HERBERT T WILKE

Methods of Tissue Culture in Vitro by Ralph Buchsbaum, Ph D, and **Outlines of Histological Methods with Special Reference to Tissue Culture** by Clayton G Loosli, Ph D Octavo of 81 pages, illustrated Chicago, University of Chicago Press 1936 Paper, \$1.00

In this pamphlet there is description of a simplified method of tissue culture Preparation of the laboratory room, the necessary glassware and instruments, media, and culture, and the simple technique are described in detail It should be of value to anyone interested in the culture of tissue

The second part of the pamphlet deals with the preparation of reagents and the technique of fixing the tissue, embedding it, sectioning, and staining

EDWARD H NIDISH

Neurological Surgery By Loyal Davis, M D Octavo of 429 pages, illustrated Philadelphia, Lea & Febiger 1936 Cloth, \$6.00

This is a well illustrated book dealing with disorders of the nervous systems that may be improved or cured by surgical therapy Injuries of the brain, spinal cord and peripheral nerves, tumors affecting the brain and spinal cord, infections implicating the central nervous system, the neuralgias and surgery of the autonomic nervous system are all discussed in a straightforward style Diagnosis and various methods of treatment, including not only surgery but also radio therapeutics, physiotherapy, etc, are presented Illustrative case histories are effectively used throughout This treatise, written for the general practitioner, is an attempt to emphasize just what may be accomplished in this particular field of surgery It is highly recommended as an accurate account of the present status of neurological surgery

JEFFERSON BROWDER

Microbiology and Pathology for Nurses By Charles F Carter, M D Octavo of 682 pages, illustrated St Louis, The C V Mosby Company, 1936 Cloth, \$3.00

This volume of 682 pages written for nurses covers bacteriology and pathology in such a dogmatic and elementary fashion

that it loses its purpose As an outline for review the book may prove of value to those who have been taught from some well accepted volume on the subject of bacteriology and pathology

While it is true that those for whom this volume was intended spend a very short time on both of these subjects during their training, it is also important that their source of information should be more comprehensive Otherwise an accumulation of factual knowledge may lead to a narrow point of view A good nurse is a valuable adjunct to medicine The sources of information accumulated during her student years should be comprehensive and not dogmatic In this respect this book fails of its purpose

MORRIS L RAKIETEN

The Riddle of Woman. A Study in the Social Psychology of Sex. By Dr Joseph Tenenbaum Octavo of 477 pages New York, Lee Furman, Inc, 1936 Cloth, \$3.50

In this comprehensive lecture Dr Tenenbaum examines woman as spinster, wife and widow, mother and mother-in-law, angel, gossip and criminal, prostitute and adulteress, witch and beauty The psychology, biology and social relations of woman are discussed in a calm, scholarly way It is interesting to note that the first woman physician to take a degree anywhere was Elizabeth Blackwell who was graduated from Geneva University (New York) in 1849

Strangely enough, the author is not a psychologist but a urologist practicing in New York City, who has already won recognition as an author Interesting and valuable and easy to read, the medical profession should appreciate this book.

CHARLES A GORDON

British Masters of Medicine. Edited by Sir D'Arcy Power, FRCS Octavo of 242 pages, illustrated, Baltimore, William Wood and Company, 1936 Cloth, \$3.00

This book is a compilation of brief biographical sketches of British masters of medicine, covering a period from Harvey, of the seventeenth century to Starling of the twentieth century The sketches originally appeared in the pages of the *Medical Press and Circular* They are elegantly written and cover the outstanding achievements of each of the prominent medical men who have contributed towards the progress of medicine Collectively, these short biographies delineate the evolution of science and medicine in Great Britain

WILLIAM RACHLIN

calculations that are made are in reality operable over a period of seventy-two hours. Changes in the dose of protamine are not reflected in the blood sugar or the morning urine, on the day the change is made. For this reason one must expect some glycosuria for the first few days after the commencement of the protamine insulin therapy.

There are several methods of procedure that have been followed by different groups of investigators in regard to the amount and time of administration of the protamine insulin. We have employed many of these, both in the same and different cases, and shall briefly mention them and illustrate their effect by means of case reports.

1 The method employed by the original investigators consists of giving a dose of regular insulin at 8 A.M. and protamine at 6 P.M. The A.M. dose of regular insulin is about twice that of the P.M. dose of protamine insulin. Blood sugar determinations are made at 7-11-2-5-10, the micro method of Folin¹ being used for this purpose. Daily qualitative tests for urine sugar are made at intervals of two to three hours from 6.30 A.M. to 9.30 P.M. and the ammonia content of the urine determined for the twenty-four hour period as an indication of fluctuations in the acidosis. The total amount of insulin used during the twenty-four hour period is increased or decreased as clinical and laboratory indications arise.

2. The reverse of the first method i.e., protamine insulin in the morning and regular insulin in the evening. The distribution of the carbohydrates in the three meals under this routine has been usually such that about one-fifth is given for breakfast, and two-fifths each for the other two meals.

3 The method of giving regular insulin before breakfast and supper and a dose of protamine at bed time (about 10 P.M.)

4 The method of giving both doses as protamine insulin, at a twelve hour interval, say at 8 A.M. and 8 P.M.

5 The method of using one dose of protamine insulin in the morning, supplemented by a dose of regular insulin administered at the same time but at a different site of injection. Various other modifications have been tried, too numerous to mention, and having no practical bearing on the subject.

Procedure

During our period of observation, we have used each of the above methods and

have found the following procedure to be most effective and practical. We allow a dosage of protamine insulin equivalent to about seventy per cent of the calculated regular insulin requirement that had been in use for the particular patient at the time. This is administered as one dose about one hour before breakfast. For the first four to seven days of this change, an additional dose of regular insulin equivalent to the remaining thirty per cent of the original insulin intake, is also given an hour before breakfast, using a separate syringe and a different site of injection. If after this four to seven day period, the morning urine fails to show sugar, the regular insulin is discontinued. If hypoglycemic reactions have occurred, the dose of the protamine is too large and should be reduced. If on the other hand, sugar continues to be present in the morning urine, either the dose of the protamine insulin is increased or the administration of the supplemental dose of regular insulin is continued. The rate of increase or decrease of protamine insulin is never more than five units at a time. We have found it advisable at intervals of four or five days, to do blood sugar determinations before each meal, in order to have a fairly good idea as to the glycemic response to the treatment. Urine specimens are collected daily—supper to breakfast, breakfast to lunch, and lunch to supper—and quantitative sugar determinations made. In this way a fairly good idea is obtained as to which part of the twenty-four hour period, is responsible for any glycosuria that may be present. It has been our experience that if the proper dose of protamine insulin cannot be arrived at to control the morning glycosuria, without precipitating hypoglycemic reactions, then the small supplemental dose of regular insulin should be given over a longer period of time instead of increasing the dose of the protamine. Emphasis is placed on the fact that this dose of regular insulin is made as a separate injection, otherwise it will be precipitated by the monoproamine and increase the effect of the protamine insulin.

Factors Influencing Blood Sugar Level

In all cases that fail to respond favor-

Protamine Insulin Action and Indications for Its Use

When a dose of protamine insulin, equivalent to a diabetic's usual insulin requirement, is injected into such a patient, no effect is noted until four to six hours have elapsed. If food is withheld, hypoglycemia will set in at about the ninth hour and this state will continue up to about the thirty-ninth hour, producing usually the train of symptoms either of those associated with hypoglycemia or those associated with acidosis and impending coma. It stands to reason that any preparation having such a marked and prolonged effect, can produce a great deal of trouble if not properly administered. Likewise its use can be greatly discredited by its injudicious employment.

What the medical practitioner is anxious to learn is the exact type of case or cases where this preparation may be of greater benefit than the regular insulin. From our experience and from the reports²⁻⁶ that have appeared in the short period of time, one gets the impression that the protamine insulin, if used wisely, may eventually prove to be a great advancement in the treatment of diabetes. On the other hand, its use without care or definite knowledge of its action, may produce harmful results and discredit the useful purpose for which it was intended.

As far as our experience permits us to judge at the present time, any case of diabetes which, in spite of proper diet and adequate doses of regular insulin, shows marked fluctuations in the blood sugar with or without episodes of hypoglycemic reactions, constitutes an ideal indication for the use of the protamine insulin. After considerable skill is obtained in the use of this preparation, this group of selective cases may be enlarged to include the average case of diabetes requiring insulin, where it is desired to obtain a more even blood sugar level during the twenty-four hour period, or where it is desired to diminish the amount of insulin, the frequency of injections or both. It must be mentioned, however, that up to the present time, such general use of the protamine insulin in diabetes, is by no means a definitely established or

unanimously agreed upon procedure. As Dr. Mosenthal has pointed out there are certain cases of diabetes whose hyperglycemia level is more or less persistent regardless of the food intake and in others where this occurs only after the ingestion of food. To combat the former a prolonged constant action of insulin would seem to be logical. To combat the latter however, the quick action of regular insulin appears more consistent. To establish any hard and fast general method of procedure covering all cases of diabetes would seem unwise and premature at this stage of our observations.

The very fact that protamine insulin has a delayed reaction time, and that this action, when once initiated in reducing the blood sugar, continues to do so over a much longer period than the regular insulin, excludes its use as an emergency measure in cases of acidosis and impending coma, where quick action is demanded. Likewise, it is preferable though not absolutely necessary that new diabetic patients, about whom no observations are obtainable with regular insulin, should not receive the protamine insulin as an initial method of treatment.

In calculating our diets for these diabetic patients receiving the protamine insulin we have followed the simple procedure of allowing one gram of protein and two and a half grams of carbohydrates per kilo of body weight. Enough fat is then added to bring the caloric intake to the required amount. The carbohydrates are so distributed during the day that one-fifth is received for breakfast, and two-fifths each for lunch and dinner. In this connection, it is of interest to point out that, the diet used in Hagedorn's original cases, averaged only about 100 grams of carbohydrates, divided into two-fifths each for breakfast and lunch and one-fifth for dinner.

Methods Advocated for Administration

Regarding the actual calculation of the amount of protamine insulin necessary in a given case, one must always remember that when this preparation is used, the

the protamine insulin itself that may possibly have an effect upon the course of treatment. *First* comes the question of the cumulative action of protamine insulin. Whether such is the case can only be conjectured and has not as yet received substantiation to make it a definite fact. It remains as a theoretical possibility and should be followed up. There is some evidence thus far which seems to indicate that such cumulative action may occur after the protamine insulin has been in use over a period of time. *Second*, whether the rate of absorption of the injected protamine insulin is the same in all persons is very questionable. *Third*, there is a possibility that the rate of liberation of the insulin, from the protamine compound, proceeds, at varying rates in the same person.

All these factors may have an appreciable effect upon the ordinary case of diabetes treated with protamine insulin but it may have quite a marked and ofttimes a very confusing effect in the case associated with marked fluctuations in the blood sugar, that has not been kept under careful observation.

Symptoms and Treatment of Overdosage

A very brief description of symptoms following an overdose should be mentioned at this point and the means employed to combat the condition. The reactions encountered with the protamine preparation are much less severe than those encountered with the regular insulin. The duration however is much longer because of the more gradual action of the protamine preparation.

Usually the first noticeable signs of intolerance or overdose is the complaint by the patient of an indefinite feeling of unrest and nervousness. They complain of feeling unusually tired as if they had engaged in some strenuous muscular exercise. Various sensory disturbances may then begin to manifest themselves in the forms of paresthesia and anesthesia, particularly a feeling of numbness about the mouth and a tingling sensation in the fingers. Visual disturbances may also occur as part of the reaction in the form of amblyopia or diplopia. There is less tendency to perspire than during the usual insulin reaction. When the

attack has been brought under control, a dull headache may persist for some time after the complete disappearance of the other symptoms and if the particular hypoglycemic reaction happens to be a severe one there is usually complete amnesia for the duration of the attack.

The management of these hypoglycemic reactions is no different from those produced by ordinary insulin except that one must remember that the reaction with the protamine is more prolonged and therefore requires more prolonged treatment. If sugar is given by mouth, small doses repeated at frequent intervals is beneficial or the administration of some food like milk and crackers which requires a longer period for absorption and hence insures a more prolonged supply, should be used to replenish the lowered blood sugar. If the reaction is very severe, the intravenous administration of glucose must, of course, be resorted to. It is quite significant to mention here that during our period of observation with protamine insulin we have encountered surprisingly few of these so-called reactions and their accompanying symptoms. None at least that have been severe enough to warrant the intravenous administration of glucose.

The whole question of insulin reaction or shock is an extremely interesting one. There are some observations that we have made both with the regular insulin and the protamine insulin which leads us to believe that the production of these so-called insulin shock symptoms is not solely dependent upon the presence of a marked hypoglycemic level. On several occasions, with the use of regular insulin, we have observed patients showing many of these clinical symptoms of insulin reaction and were very much surprised to find blood sugar values within the normal range. At the same time these symptoms completely disappeared with the ingestion of carbohydrates.

Reactions with the protamine insulin have been far less frequent and less severe than those formerly encountered with the regular insulin. We have on several occasions been surprised to note blood sugar values as low as forty-five mg without any complaints from the patient. At times only a sensation of confusion or of being dazed, would be com-

ably to regular insulin therapy, a thorough search must be made to attempt to determine whether any additional factors are responsible for the difficulty. I am stressing this point particularly for these same factors may act in exactly the same way with protamine insulin, perhaps in an even more exaggerated form and eventually lead to confusion and unwarranted discrediting of this preparation.

First An accurate consideration of the amount of physical and nervous energy expended by the patient is of utmost importance. It is not an uncommon experience to the careful observer to meet a case of diabetes which shows glycosuria when completely at rest and hypoglycemia on another day when the patient is especially active physically. Likewise the effect of nervous strain may produce similar results. In other words in the diabetic patient, proper allowance should be made for additional physical or nervous expenditures of energy, either by increasing the caloric intake for that period of additional activity or by reducing the amount of insulin allowed. This fundamental fact is very often lost sight of and may cause a great deal of confusion in an attempt to control these diabetic individuals. If this is the cause for marked fluctuations in the blood sugar, it stands to reason that very little can be expected from protamine insulin in such a case, except that it may exaggerate some of the associated symptoms, and make the problem of sugar control a more difficult one.

Second Other glandular abnormalities very often interfere materially with the proper response of an individual to the administration of insulin. Thus in a certain type of enlargement of the liver due to fatty deposition, a markedly disturbed sugar tolerance and insulin reaction is encountered. Attention to this factor was called by Hanssen⁶ recently. A common feature in this type of case is a severe form of diabetes which is difficult to control. The liver is enlarged as a result of fat infiltration, induced directly by the abnormal diabetic metabolism. This enlargement occurs only in young patients. They can be brought very well under control with protamine insulin and the condition becomes considerably improved after a certain period of treatment, as evidenced by the disappearance

of the marked blood sugar fluctuation and a decrease in the size of the liver.

Thyroid, adrenal, and pituitary abnormalities each in turn must receive proper evaluation as a possible cause for failure to control a case of diabetes with ordinary insulin. Some of the glandular disturbances, especially hyperthyroidism, make the control of the diabetes very difficult. The marked increase in the metabolic requirements are difficult to meet, and even extremely large doses of insulin prove entirely ineffectual. Surgical interference is absolutely necessary and becomes a life-saving measure. A detailed account of a typical case under this group will be given later. Under this heading may also be included certain abnormalities or peculiarities of the pancreas itself, which make the time of administration of insulin and the distribution of the dose, with respect to the daily food allowance, of considerable importance. In this connection, it has been observed that the amount of insulin generated by the pancreas itself during the twenty-four hour period has a certain diurnal variation. The least amount of activity is noted in the morning, and the greatest amount as the day progresses. For that reason the early blood sugars are quite high while the evening blood sugars are low. It has therefore been recommended by some that, one hour before breakfast, immediately after lunch, and two hours after supper is the ideal timing for the administration of regular insulin. Also in dividing the dosage of the insulin on this assumption the largest amount should be given in the morning and the rest evenly divided between lunch and supper. Practical experience with cases of diabetes confirms these experimental observations. Such variations in the function of the pancreas can very often be misinterpreted as abnormal responses and if not properly understood may lead to endless confusion. One must also mention at this point the stimulating effect upon the pancreas of small carbohydrate meals when given about an hour to an hour and a half before the regular meals. The utilization of this practical point helps considerably sometimes in the regulation of a diabetic.

There are other factors pertaining to

Case Reports

We have decided to report in detail seven of our cases because each one shows some different phase of the problem presented by the use of protamine insulin. When considered collectively, they offer a means of really evaluating the effectiveness of this preparation clinically.

CASE 1 (Chart I) This patient was a thirty-five year old German merchant, with a history of diabetes for a period of five years, who was admitted to the hospital with signs and symptoms of diabetic acidosis. His chemical blood examination on admission was 266 mg of sugar per 100 c.c. of blood, CO₂ combining power of the blood plasma was 32.8 per cent and 4.8 per cent sugar in the urine with large amounts of acetone and diacetic acid. He received intensive treatment of saline and fluids intravenously and by hypodermoclysis and adequate insulin dosage. After a period of six days he was placed on a diet of P 90 F 100 C 250 with regular insulin 30-30-30. His fasting blood sugar at this time was 250 mg per 100 c.c. of blood.

On this regime he showed marked fluctuations in his blood sugar ranging from 250 mg in the morning to fifty mg at night and excreted about twenty-two and a half gm of sugar in the twenty-four hour urine. A change in the administration of the regular insulin was then tried to 40-30-20. The marked fluctuations in the blood sugar continued ranging from 320 mg in the morning to 100 mg at night with an excretion of about eighteen and a half gm of sugar in the twenty-four hour urine specimen. The carbohydrate intake was then reduced from 250 to 200 gm with the same amount of insulin, without any evidence of checking the marked fluctuations in the blood sugar. It was then decided to use protamine insulin. His diet remained unchanged of P 90 F 100 C 200 and he received protamine insulin sixty units at 8 A.M. and twenty units at 8 P.M. After four days of this regime, the blood sugar determinations before each meal had decreased to fifty-two, one hundred twenty-five, and forty-three mg and the urine negative. The following day the patient showed signs of insulin shock with a blood sugar of thirty-four mg. This was controlled without any difficulty.

CHART III

Effectiveness of protamine insulin administered at twelve hour intervals in a case of diabetes with persistent hyperglycemia and reduction in total units of insulin made possible by use of protamine insulin therapy (Case 3)

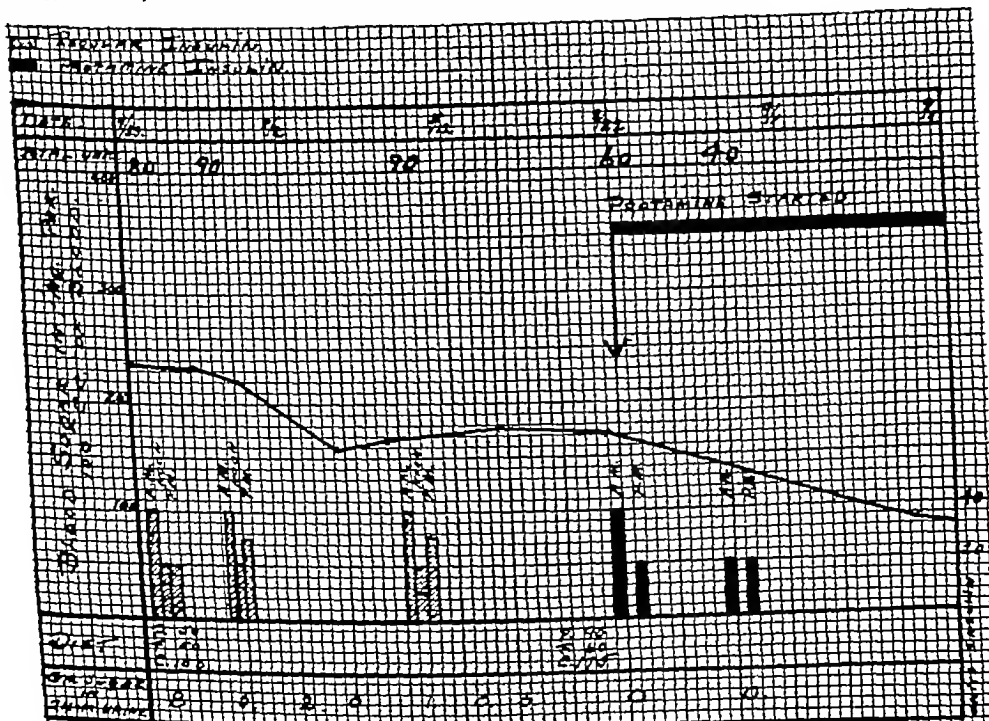


CHART I

Method of using protamine insulin at twelve hour intervals in moderately severe diabetic who manifested marked fluctuations in daily blood sugar levels while on regular insulin, and disappearance of fluctuations with protamine insulin therapy (Case 1)

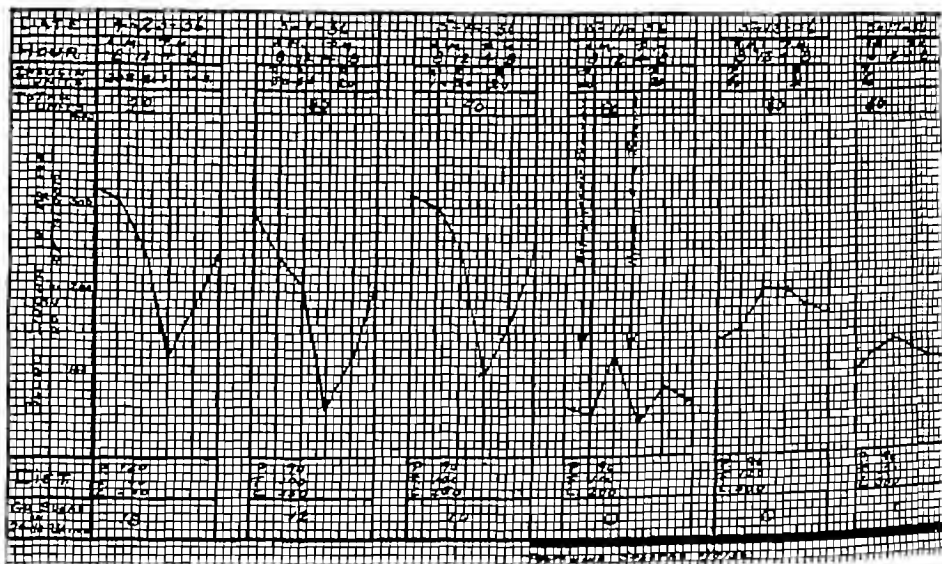
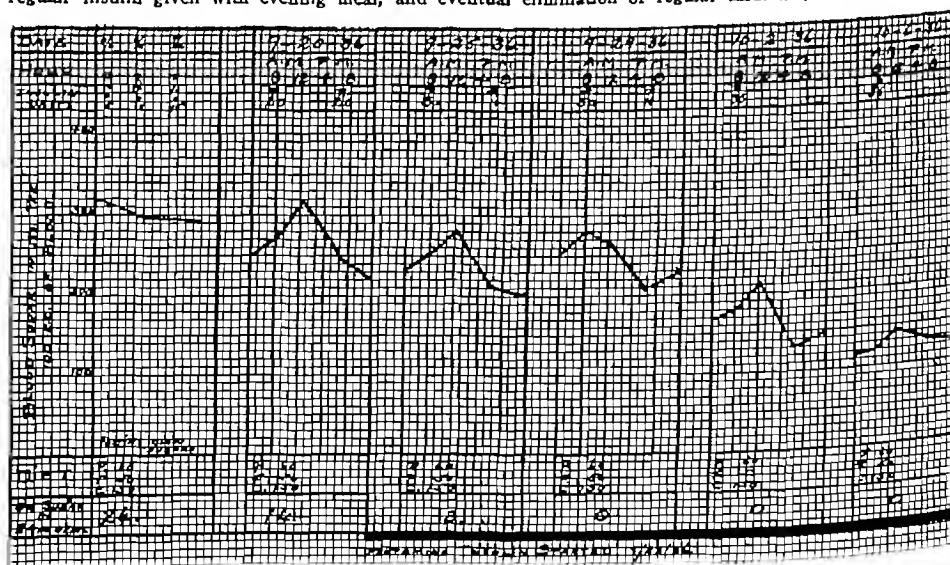


CHART II

Effect in an elderly diabetic of protamine insulin administered in morning with supplementary dose of regular insulin given with evening meal, and eventual elimination of regular insulin. (Case 2)



plained of Most of these symptoms would be controlled by the intake of food scheduled for the next meal without resorting to any additional carbohydrate intake

Our observations on this point lead us to believe that the production of insulin reaction symptoms is dependent to a

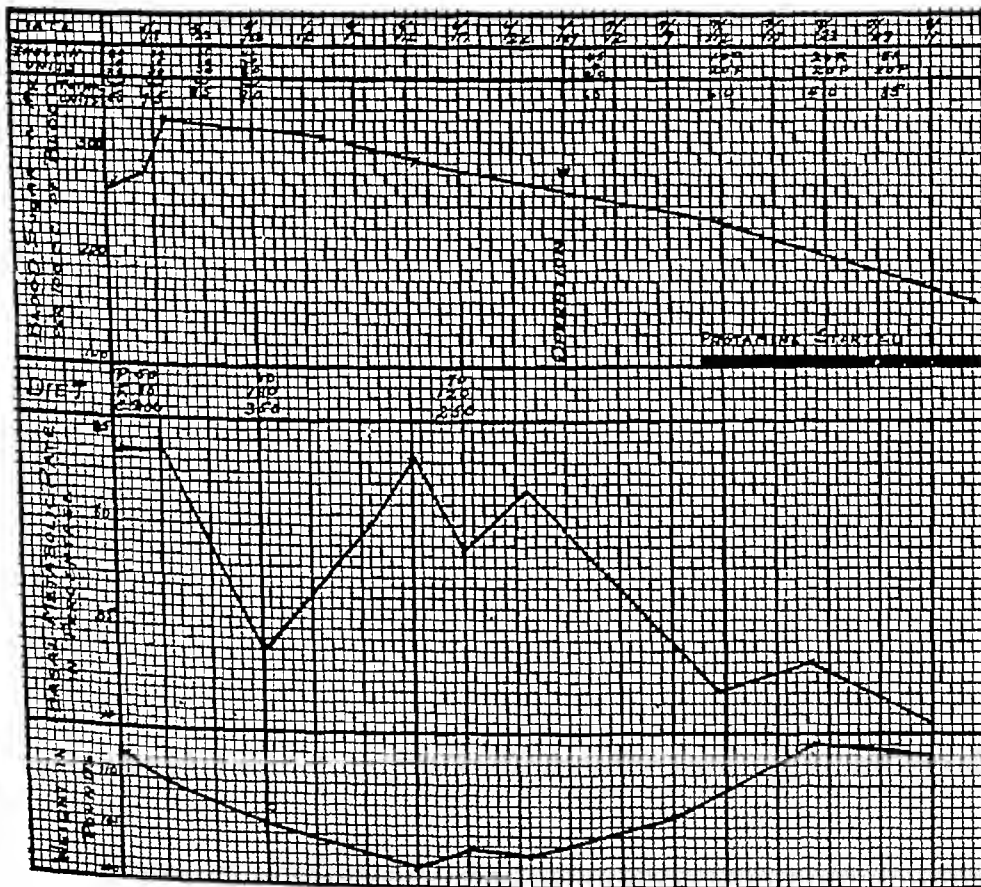
great extent upon the rate of change in the blood sugar values rather than solely upon a definite blood sugar level The sudden reduction in the blood sugar values, which are more frequent with the regular insulin than with the protamine insulin seems to confirm and explain the above mentioned contention

of protamine insulin one hour before breakfast and ten units of regular insulin at 6 P.M. It is very interesting to note the gradual lowering of the sugar curves done at several day intervals, while on this regime. The last one performed was after the patient had been taking only the prota-

a check revealed a fasting sugar of 234 mg per 100 cc of blood with five gm of sugar in the urine. It was then decided to change the regular insulin administration to 40-20-20. After an additional seven days on this treatment the fasting blood sugar was still 222 mg. Another increase in the

CHART V

Course of severe diabetes complicated by hyperthyroidism and marked reduction in total units of insulin accomplished by using dose of regular insulin before breakfast and protamine insulin before supper (Case 5)



mine insulin as one dose in the morning. Comparison of these different sugar curves shows the striking changes and resultant establishment of the blood sugar on a much lower level and without wide fluctuations during the twenty-four hour period.

CASE 3 (Chart III). Patient was a fifty-eight year old German sailor who developed a bronchopneumonia, and in addition had a blood sugar of 235 mg per 100 cc of blood and CO₂ combining power of the blood plasma of forty per cent vol with forty gm of sugar in the urine. He was placed on a diet of P 50 F 50 C 100 with regular insulin 30-10-30. After four days

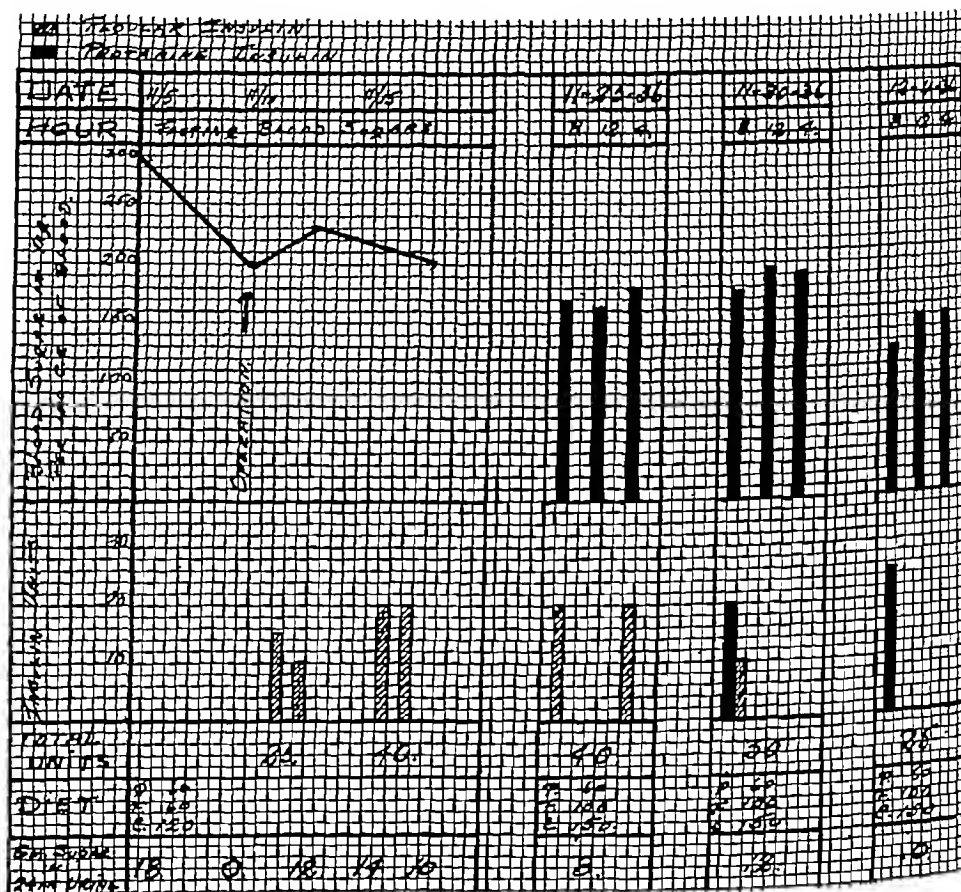
regular insulin was then made, so that the patient was receiving 40-20-30 units and after a few days his urine became sugar free. It was then a question of increasing his diet and also of the convenience of this patient's receiving three injections of regular insulin a day after leaving the hospital. We felt that the use of protamine insulin might be of considerable help. The patient's diet was accordingly increased to P 90 F 60 C 175 and protamine insulin given forty units in A.M. and twenty units in P.M. After six days of this regime the patient reported he felt exceptionally well and his fasting blood sugar was 100 mg with no sugar in the urine. The protamine

Inasmuch as the patient complained of being hungry most of the time on the diet allowed, it was decided to increase the diet rather than decrease the protamine insulin. Patient received P 90 F 120 C 300 with sixty units of protamine at 8 A M and twenty units at 8 P M. There were no

of precordial pain with radiation down the left arm and weakness. The patient had not been receiving insulin prior to admission to the hospital. The blood sugar on admission was 294 mg per 100 c.c. of blood and CO₂ combining power of the blood plasma forty-nine per cent vol. Her

CHART IV

Effectiveness of protamine insulin, in moderate case of diabetes, administered together with supplementary dose of regular insulin one hour before breakfast, with eventual elimination of this supplementary regular insulin (Case 4)



marked fluctuations in the blood sugar noted any further and blood sugars before each meal showed 129, 136, and 125 mg respectively. The patient was then discharged, taking only one dose of seventy units of protamine insulin in the morning with the same food intake.

CASE 2 (Chart II) Patient was a seventy-eight year old female with a history of diabetes of long standing. At the time of admission to the hospital she was suffering from a rather marked cardiac decompensation. In addition she complained

urinary sugar was twenty-four gm during the twenty-four hours. A diet consisting of P 60 F 50 C 150 was allowed at this time with regular insulin units 25-0-15. After a period of about ten days, her blood sugar values before each meal were 271, 308, and 228 mg with sugar excretion reduced to fourteen gm for the twenty-four hour period. It was then decided to institute protamine insulin therapy rather than increase the regular insulin dosage, or decrease the carbohydrate content of the diet. Accordingly she received thirty units

tinued to have a hyperglycemia (244 mg) and glycosuria. Rather than decrease the diet or increase the dosage of regular insulin, we thought that protamine insulin should be tried. Accordingly the diet was kept the same and the morning dose of forty units regular insulin was continued, and in addition twenty units protamine insulin allowed at 6 P.M. After two days the patient had an insulin reaction at 2 A.M. and as a result the insulin dosage was further reduced to twenty units regular in A.M. and thirty units protamine at 6 P.M. The patient continued to show marked improvement with absence of hyperglycemia or glycosuria, so that after ten days the insulin was further reduced to twenty units regular in A.M. and twenty units protamine at 6 P.M. The patient's weight had increased to 114 lbs and he was sent home on the same caloric intake as above with fifteen units regular insulin in A.M. and twenty units protamine insulin at night.

CASE 6 (Chart VI) This patient was a thirty-one year old male who was admitted to the hospital October 19, 1936, complaining of polyphagia, polydipsia, and polyuria of six months duration. He had lost approximately thirty-five pounds during this period. There was nothing significant in his past history, except that eight years previously he had had a G.C. urethritis which lasted about two months. The patient was in the habit of consuming for the previous ten years, about half a pint of whiskey and about three quarts of beer daily. He was unmarried and there was no family history of diabetes obtained. Examination revealed a well-developed adult male who showed signs of considerable recent weight loss. His pupils were regular, equal, and reacted normally to light and accommodation. His teeth were in poor condition and showed marked alveolar recession. Pharynx was reddened. There was no thyroid enlargement. Lungs were negative. The heart was slightly enlarged to the left and the heart sounds were regular and of good quality. Reflexes were normal. On admission his fasting blood sugar was 188 and his urine contained 39 per cent sugar. He received a diet of P 70 F 85 C 150 and regular insulin 10-10-5. His blood sugar continued to be elevated and the glycosuria remained practically the same. On October 27, his fasting blood sugar was 238 mg and the urine showed 18 per cent. The same diet was maintained and the insulin dose was increased to 20-10-15. Following this change some improvement was noted in his

condition by a further reduction in the fasting blood sugar to 185 mg. The glycosuria remained about the same however. The regular insulin was further increased on November 2 to 25-15-20. The hyperglycemia and glycosuria, however, was not greatly improved by this regime, so that it was decided to start the use of protamine insulin in this case. Accordingly forty units of the protamine and twenty units of the regular insulin were given one hour before breakfast. The same diet was maintained. After a period of five days blood sugar determinations before each meal showed 133, 82, and 80 mg with 0.4, 0.6, and 0.4 per cent sugar in the urine specimens from supper to breakfast, breakfast to lunch, and lunch to supper. After an additional eight day period on the above regime it was noted (November 17) that the blood sugar values before each meal had increased to 137, 140, and 124 mg and that the urine from supper to breakfast contained 28 per cent sugar. It was therefore felt that this patient could tolerate an increase in the insulin dosage. Accordingly he was given forty-five units of protamine and twenty units of regular insulin one hour before breakfast. After a six day period, his blood sugar values before each meal were seventy-six, forty-four, and sixty-seven mg. The patient experienced a mild insulin reaction which coincided with the low blood sugar value. This was very easily controlled. It was therefore decided to allow only the forty-five units of the protamine in the morning dose and discontinue the use of the regular insulin entirely. Four days later the blood sugar determinations before each meal showed an increase to 119, 185, and 125 mg with some glycosuria in the afternoon and evening specimens of urine. It was felt that the dose of regular insulin had been discontinued too abruptly for this particular case, and so the patient was given fifty units of protamine and ten units of regular insulin in the morning and on this regime and with the same food intake blood sugar determinations on December 2, 1936 showed 133, 53, and 56 mg with complete disappearance of the glycosuria. The patient was finally discharged in about three days, taking only fifty units of protamine insulin one hour before breakfast.

CASE 7 (Chart VII) This case was one of juvenile diabetes in a boy sixteen years of age who was readmitted to the hospital because of difficulty in regulating his diabetes at home. He had been in the hospital one year previously for treatment. Since his discharge he had been followed

insulin was accordingly reduced to twenty units in A M and twenty units in P M. Thus this patient who on a diet of P 75 F 60 C 120 and ninety units of regular insulin a day, still persisted in showing a considerable hyperglycemia, became normal with the use of only forty units of protamine insulin a day, in spite of the fact that his diet was increased to P 90 F 60 C 175.

CASE 4 (Chart IV) This patient was a fifty-two year old female who was admitted to our Gynecological Service, complaining of a sensation of some protruding mass in the vagina. This condition had been getting progressively worse for the past ten years and the patient had decided to enter the hospital for surgical relief. Her last menstrual period occurred seven months previously. The patient's diabetic condition was discovered three years previously and since that time she has been on a restricted diet with the use of fourteen units of regular insulin at night. The patient states however that she has not been checked from time to time regarding her blood sugar values and that glycosuria was present under the above regime. There was nothing significant in her past or personal histories. Her family history revealed that her mother had been a diabetic.

On examination, she revealed a third degree prolapse of the cervix and uterus through the vagina and operation was advised as soon as the patient could be properly prepared for it. At the time of admission November 5, 1936, her fasting blood sugar was 286 mg per 100 c.c. of blood and CO₂ combining power of the blood plasma 46.2. Her urine showed a large amount of sugar (25%) but no acetone or diacetic acid. She was given intensive therapy with regular insulin and five days later her blood sugar was reduced to 200 mg and her urine sugar free. She was operated upon November 10 and a vaginal hysterectomy performed. She made an uneventful recovery and it was thought that protamine insulin should be tried in this case. She had been placed on a diet of P 60 F 60 C 120 with insulin 20-0-20 (November 13). At this time her blood sugar was 215 mg and she excreted nine gm of sugar in the twenty-four hour urine specimen. On November 17 her fasting blood sugar was 196 mg. The diet of P 60 F 60 C 120 was continued with regular insulin 20-0-20. On November 25 blood sugar determinations before each meal showed 169, 163, 180 with the urine negative. Because the patient did so well on the regular insulin it was decided to allow

only twenty units of the protamine and ten units of the regular insulin in the morning before breakfast. This approximation however was not justified for on November 30 blood sugar determinations before each meal showed 177, 194, and 192 mg with considerable glycosuria in all three urine specimens. The insulin dosage was then changed to twenty-five units of protamine alone and after an additional four day period, her blood sugar values before each meal were 127, 154, and 154 mg. The patient has been getting along very nicely ever since with the use of twenty-five units of protamine insulin and approximately the same diet.

CASE 5 (Chart V) This case is of particular interest as demonstrating the marked disturbance that can take place in the carbohydrate metabolism of a diabetic patient with the onset of hyperthyroidism. The patient was a thirty-one year old male with a diabetic history dating back twelve years. It is of interest to note that at that time I did a basal metabolism test and found it to be +5%. Since that time the patient had been getting along on a fairly liberal diet with twenty units of regular insulin twice a day. Five months prior to the present admission to the hospital, the patient began to complain of nervousness, palpitation, loss of weight, and fatigue. His weight loss during the five months period was thirty-five pounds. On admission to the hospital his weight was 118 lbs. Fasting blood sugar 263 mg per 100 c.c. of blood and B M R +77%. He was given five minims of Lugol's solution three times a day and a diet of P 90 F 150 C 250 with insulin 30-15-30. After ten days the B M R dropped to +30% but his weight had decreased further to 107 lbs. It was therefore decided to increase the caloric intake and also the amount of regular insulin, in order to stop the marked weight loss. Accordingly his diet was increased to P 60 F 180 C 350 with regular insulin 40-20-20. In spite of this therapy the fasting blood sugar (June 3, 1936) remained elevated at 312 mg and the weight showed a further decrease to 103½ lbs. His B M R. had risen to +60% and his condition was considered very unfavorable. It was decided after considerable consultation, to attempt a subtotal thyroidectomy on the patient. This was performed on June 25 and was effective in lowering the B M R. and eliminating most of the hyperthyroid symptoms. After a stormy convalescence the control of the diabetes was again attempted. Accordingly, the patient was given a diet of P 70 F 120 C 250 with regular insulin 40-10-20 units. The patient however con-

provement however was observed in this respect, so that the blood sugar which had fluctuated from 250 mg in the morning, to fifty mg per 100 cc of blood at night was changed to a fluctuation from 320 mg in the morning to 100 mg at night. The glycosuria however was still present. The next step that was tried was reducing the carbohydrate intake from 250 to 200 gm and keeping the insulin administration the same. This likewise had no beneficial effect on the control of the diabetes.

Maintaining the same dietary factor, we then switched this patient to protamine insulin exclusively. He received sixty units of the protamine insulin at 8 A.M. and twenty units at 8 P.M. Two definite and striking effects were noted as a result of this change: a marked lowering and flattening out of the daily

blood sugar curve, and a complete disappearance of the glycosuria. Thus we were able to accomplish with eighty units of the protamine, that which was practically impossible with ninety units of the regular insulin. Incidentally the number of injections were also reduced from three to two per day. With further treatment and without any increase in the dose of the protamine insulin the dietary factor could finally be increased to P 90 F 120 C 300, without precipitating either hyperglycemia or glycosuria. This case shows the method which we have described (No 4) wherein the protamine insulin is administered at twelve-hour intervals.

In Case 2 (Chart II), the patient at the beginning of our period of observation was receiving a diet of P 60 F 50 C 150 and insulin units 25-0-15. Her

CHART VII

Protamine insulin in severe form of juvenile diabetes, with resultant effectiveness of single dose of protamine insulin administered once a day before breakfast with consequent reduction in total daily insulin requirement. (Case 7)

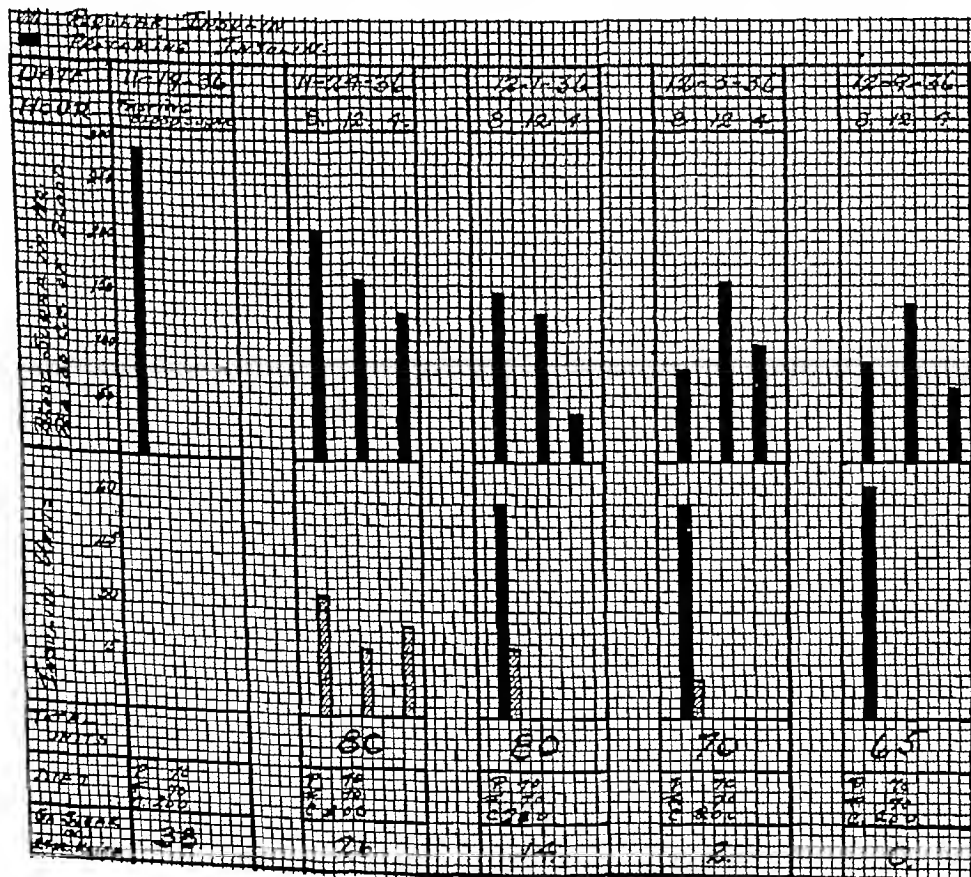
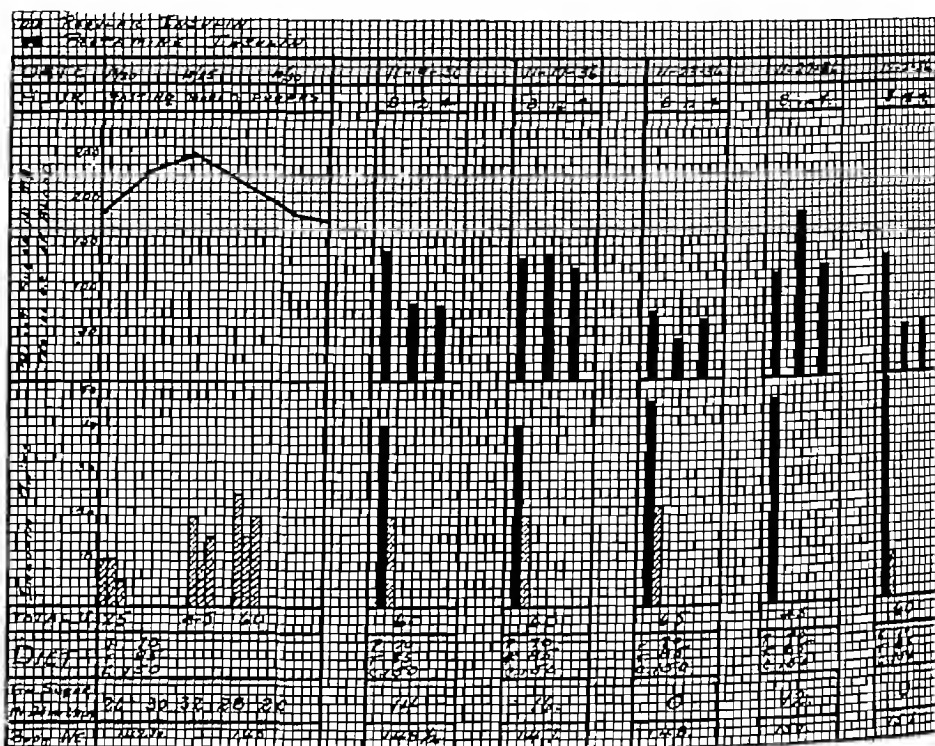


CHART VI

Effect of protamine insulin therapy in case of moderately severe diabetes with administration of seventy per cent of total daily units as protamine insulin and thirty per cent as regular insulin given as separate injections, one hour before breakfast and the gradual elimination of regular insulin (Case 6)



by our outpatient department. Recently he began to show considerable glycosuria and admission to the hospital was advised.

On admission November 19, 1936, his fasting blood sugar was 290 mg and his urine showed three per cent sugar. He was placed on a diet of P 70 F 70 C 200 and given regular insulin 35-20-25. After a six day period, the blood sugar values before each meal were 204, 165, and 85 mg with considerable sugar present in the corresponding two urine specimens. It was decided to see how this patient would respond to protamine insulin. He was accordingly given sixty units of the protamine and twenty units of the regular insulin as separate injections one hour before breakfast. Seven days later, blood sugar determinations showed a marked improvement and were found to be 152, 137, and 41 mg. The glycosuria was greatly reduced. The patient experienced slight insulin reaction coinciding with the blood sugar of forty-one mg but the intake of the evening meal gave adequate relief without the need of any additional carbohydrate intake. It was therefore decided to reduce the regular insulin to only ten units and maintain the

protamine insulin at sixty units. After a four day period (December 5) the blood sugar values taken before each meal were 133, 53, and 56 mg and no sugar in the urine. The patient was then given sixty-five units of the protamine as one dose, one hour before breakfast. There was complete control of the glycosuria and very little change in the blood sugar from the previous determinations.

Discussion

By examining carefully the observations noted in our selected group of case reports, the effect of protamine insulin under a variety of conditions may be appreciated. Thus, Case I shows the course of a moderately severe diabetic who with an intake of P 90 F 100 C 250 and insulin 30-30-30 showed marked fluctuations in the blood sugar during the day with considerable glycosuria. It was thought that perhaps by changing the insulin to 40-30-20 these fluctuations might be eliminated. Only a slight im-

his glycosuria completely cleared and the patient showed signs of a hypoglycemic reaction. The dosage was further changed to twenty units of regular insulin in the morning and thirty units of protamine with his supper. After another ten-day period this was further reduced to twenty units regular in A.M. and twenty units protamine in P.M. and finally to fifteen units regular and twenty of the protamine. The method employed in this case is that which we have described under procedure No. 1 and is similar to the one used by the original investigators.

In Case 6 (Chart VI), the effect of the protamine insulin is very well demonstrated. There are two points that we wish to particularly stress and which are very well illustrated by this case. The first is the marked sensitiveness that is noted in the blood sugar equilibrium as one nears the level of the required amount of protamine insulin. Thus it may be noted that increasing the protamine insulin five units precipitated hypoglycemic reactions as noted in Chart VI on November 23, 1936. We have found thus far that this sensitive upper limit, when once disturbed, causes a considerable degree of vasculature in the blood sugar levels which sometimes causes difficulty in restoring an equilibrium. It is for that reason that we prefer to begin with too small a dose of the protamine rather than a too large one. This case also demonstrates the fact that when the supplemental dose of regular insulin is twenty units it is far better to effect the reduction and omission of this dose gradually rather than at one time. Thus it was necessary to resume the use of ten units of the regular insulin for a period of time before finally replacing it by an additional five units of the protamine insulin.

Another point which we would like to discuss is the question of low blood sugar values and their accompanying symptoms. It has been our experience to encounter rather low blood sugar values, such as the 44 mg. reading in this particular case on December 2, 1936 without very marked subjective symptoms. This observation we have noted on several occasions, since beginning the use of the protamine insulin. This phenomenon may be explained on the basis of the rate of change of the blood sugar concentration

rather than on the actual blood sugar level. We wonder whether the symptoms of insulin reaction which we have observed with the regular insulin may not be due to the rapid drop in the blood sugar level. This phenomenon is certainly extremely interesting and requires a good deal of further study.

In Case 7 (Chart VII), the response and control of a case of juvenile diabetes with protamine insulin alone is very clearly demonstrated. There are two striking advantages of this procedure that can be noted in the study of this case. The reduction of the number of injections from three to one a day and also a reduction in the total amount of the protamine insulin as compared to that of the regular insulin. Here again, we have an opportunity to see that it is far better to gradually reduce the dose of the regular insulin, when large, than to stop its use suddenly. It results in a more even course and offers less possibility of upsetting the carbohydrate equilibrium.

This particular patient had found the administration of three doses of regular insulin a great hardship because of his school work. He was indeed very grateful for the opportunity afforded by the protamine insulin to diminish this to one injection administered in the morning.

It can therefore be stated that great possibilities have presented themselves to the medical profession with the perfection of this new form of insulin. Of course the use of the regular insulin in the moderate case, has offered very little difficulty but even here, if one can obtain a decrease in the number of injections necessary during the twenty-four-hour period, then something very practical and helpful to the diabetic patient has been accomplished. Our experience leads us to feel that all these cases of so-called moderate diabetes can be benefited in this way by the use of this preparation.

The protamine insulin, however shows the most striking effect in the more severe forms of this disease, particularly in those cases which show marked fluctuations in the blood sugar that cannot be effectively controlled without either reducing the carbohydrate intake materially or by administering large and frequent doses of insulin. This is especially true in those cases often referred to as "Insulin wasters."

fasting blood sugar at this time was 294 mg per 100 c c of blood, and she continued to show considerable glycosuria. At the end of ten days of the above treatment we found her fasting blood sugar still elevated at 271 mg and she still had considerable glycosuria. Instead of increasing the dose of regular insulin or decreasing the diet we felt that the change to protamine should be effected without any further delay. Accordingly she was given the same diet and thirty units of protamine insulin one hour before breakfast and ten units of regular insulin at supper time. Eventually this dose could be reduced to only the thirty-five units of protamine administered one hour before breakfast with the resulting disappearance of the hyperglycemia and glycosuria. The method of administration of the protamine insulin which this case illustrates is the one listed as No. 2 in our description. This method represents the reverse of that used by the original investigators. The number of injections was eventually reduced to one during the twenty-four-hour period with a resultant flattening out of the blood sugar curve throughout the day and the elimination of the glycosuria.

In Case 3 (Chart III), one may observe what can be accomplished in the less severe form of diabetes, with the use of the protamine insulin. This patient on a very low diet of P 50 F 50 C 100 and regular insulin of 30-10-30 continued to show a hyperglycemia with a slight glycosuria. The dose of the regular insulin was increased to 40-20-20 and then to 40-20-30. He became sugar free, but persisted in showing a moderate hyperglycemia. The patient complained bitterly of being hungry most of the time and really required a greater caloric intake. It was therefore decided to try the protamine insulin therapy. His diet was accordingly increased to P 90 F 60 C 175 and protamine insulin forty units at 8 A M and twenty units at 8 P M were given. The improvement with this was so excellent that after six days his hyperglycemia had cleared and we were able to further reduce the protamine intake to twenty units at 8 A M and twenty units at 8 P M. Unfortunately the patient who was a sailor insisted upon

returning to his ship, so that further observation could not be made in an attempt to further reduce the protamine insulin dosage to one injection a day which we had hoped to do.

In Case 4 (Chart IV), the patient responded well to regular insulin therapy which was used to prepare her for operation. The observations on this case are merely presented to show the advantages gained by placing this patient on protamine insulin therapy. With a diet of P 60 F 60 C 120, the administration of forty units of regular insulin given as two doses, one in the morning and one at night, was sufficient to control the patient's glycosuria. It was desired, however, to increase this patient's diet to P 60 F 100 C 150 and we then instituted the protamine insulin therapy. This case shows strikingly how nearly accurate our seventy and thirty per cent approximations of the doses of protamine and regular insulin is. This can be seen by the fact that our attempt to use only twenty units of the protamine and ten units of the regular insulin was not satisfactory. In spite of the increase in the diet, a dosage of protamine insulin, ten units less than that of the total regular insulin that had been used in this case was ample to control the diabetic condition. In addition to this a decrease in the number of daily injections from two to one per day was accomplished.

The observations in Case 5 (Chart V), are extremely interesting and illustrate the marked disturbance and difficulty that may be encountered in the control of diabetes in the presence of hyperthyroid symptoms. Following the thyroidectomy the diabetes improved, but there was then noted marked fluctuations in the blood sugar level, which were rather difficult to control with the regular insulin. After thyroidectomy, the patient was put on a diet of P 70 F 120 C 250 and regular insulin of 40-10-20 units, under which regime he still continued to show a rather marked hyperglycemia and glycosuria. A change was made using forty units of regular insulin one hour before breakfast and twenty units of protamine, with his supper. This meant a reduction from a total of seventy units to a total of sixty units. The improvement was so pronounced that within forty-eight hours

WHAT THE TREATMENT OF SYPHILIS ACCOMPLISHES

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The modern treatment of syphilis became popular approximately only twenty years ago, accordingly, efforts to evaluate adequately the results of the use of the remedies employed to date have not been feasible. In fact appraisals of the results in cases in which patients have been treated during this twenty-year period are inadequate and will continue to remain so until we have had the opportunity to observe the results of treatment for a period equivalent to the life expectancy of man rather than the average duration of syphilis in man.

There is need, however, for a study of the results of treatment up to the present time in order to permit us to adopt in practice or to amplify the therapeutic procedures which have shown the outstanding results. It was with this purpose in mind that the Coöperative Clinic Group* was organized in this country eight years ago. Case records from the syphilis clinics of five universities were pooled in Washington under the guidance of the United States Public Health Service, and the results of treatment, as applied during the past twenty years to patients with the various manifestations of syphilis, have been and are in the process of being appraised.

The Coöperative Clinic Group's material now consists of approximately 75,000 case records, and it is data from the published reports of these studies that I shall use as the basis for this discussion of what the modern treatment of syphilis actually has been accomplishing. I realize that many of you are concerned with

the social, economic, clerical, and technical phases of syphilis, whereas others of you are concerned with the public health and therapeutic aspects of the disease. Irrespective of your mission in the field of public health work, I believe you also have some interest in what the treatment of syphilis accomplishes and what may be anticipated, both good and bad, from the present day therapeutic programs.

When we may anticipate cure and when the relief of symptoms is all we may expect are questions which are of concern to us who are directly or indirectly interested in the patient with syphilis. The answers to these questions are made possible by surveys of the records of large groups of cases observed over periods of years. However, the weakness in such an undertaking lies in the fact that the average patient with syphilis is a migratory "bird," flitting from clinic to clinic, who is readily scared off by a reaction to treatment, one who usually acquires the disease at an age when there is no thought of responsibility for the future, and one who migrates in search of work or because of wanderlust, unmindful of the fact that irregularity and inadequacy in treatment result in serious sequelae. Such instability on the part of these patients demands that, in order to observe the results of treatment over a period of ten to fifteen years, a large series of cases in which the patients have been treated be used.

There were 6807 cases in which patients started treatment for acute syphilis in the coöperating clinics. By the end of the second year only 1360 of these patients remained under treatment and observation, and by the fifteenth year all but fourteen of these patients had been lost track of. The value of statistical studies under such conditions is materially minimized. Accordingly, it is obvious why enthusiastic and energetic follow-up

* This group is composed of Dr. Joseph Earle Moore, Johns Hopkins University; Dr. John H. Stokes, University of Pennsylvania; Dr. Udo J. Wile, University of Michigan; Dr. H. N. Cole, Western Reserve, and myself. The chairman is Dr. Thomas Parran, Jr., Surgeon General, U. S. Public Health Service, and the group has the cooperation of the following Assistant Surgeon Generals: Dr. John McMullen, Dr. R. A. Vonderlehr, and Dr. Taliaferro Clark. The statistical survey was made under the direction of Lida J. Usilton, M.A.

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Emphasis must again be made on the fact that in using the protamine insulin, one must avoid the error of changing too many factors at any one time or of making too frequent changes in any given case. This point cannot be stressed too much. Thus when the change is made from the regular to the protamine insulin, the dietary factory should not be changed at the same time. Likewise a sufficient period must be allowed for observing the effects of this change, before attempting additional ones. If these fundamental principles are overlooked, wide fluctuations in the blood sugar values will result with endless confusion and disappointment. From a practical point of view, it is much better to begin with too small a dose of the protamine insulin rather than a too large one. A fairly good and practical method of determining a patient's response to this treatment is observed when blood sugar determinations before each meal are made, about every fourth or fifth day of the observation period and the quantitative sugar is determined in the urine specimens collected for the periods between these meals, i.e., from supper to breakfast, breakfast to lunch, and lunch to supper.

To formulate a general hard and fast rule or method of procedure which will fit every case of diabetes, is just as foolhardy as attempting to set up a standard, stereotyped method of treating pneumonia. It just cannot be done. Only the general principles of the procedure can be formulated which must depend upon the general knowledge of the subject and the clinical acumen of the physician in charge, for its modifications and application in the individual case.

Summary and Conclusions

1 Diabetics showing marked fluctuations in the blood sugar, or those associated with certain complicating factors, as hepatic enlargement, hyperthyroidism,

etc., can be controlled better by protamine insulin than by regular insulin.

2 Cases of diabetes, showing persistent hyperglycemia or where it is desired to diminish the frequency of injections, should receive protamine insulin, in an attempt to accomplish this result.

3 Protamine insulin should not be used in cases of acidosis or impending coma or those complicated by surgical conditions.

4 We have not as yet used protamine insulin as an initial form of treatment in previously unobserved cases of diabetes.

5 When changing from the regular to protamine insulin, we have found that good results may be obtained by giving seventy per cent of this amount as protamine insulin and the balance as regular insulin, both administered about one hour before breakfast, as separate injections.

6 After a period of four to seven days, if the morning urine is sugar-free, we discontinue the dose of regular insulin. If the morning glycosuria persists, we increase the protamine insulin or continue the dose of regular insulin and then attempt to gradually reduce this dose.

7 It has been our experience that if the dose of regular insulin used with the protamine is more than ten units, gradual reduction of this dose gives better results than discontinuing its use all at once.

8 Increases or decreases in protamine insulin should consist of only five units at a time.

9 Too many factors should not be changed at one time, nor should the effected changes be made at too frequent intervals.

10 It seems possible that the more gradual reduction of the blood sugar to low levels may explain the mild symptoms of insulin reaction that we have obtained with comparatively low blood sugar values, in cases treated with the protamine insulin.

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References

- 1 Hagedorn H C, Jensen, B Norman Krarup N B and Wodstrup I *J A M A* 106 177 1936
- 2 Root, Howard F White, Priscilla, Marble Alex and Statz E H *Ibid* 106 180 1936
- 3 Kerr, R B, Best C H, Campbell W R and Fletcher A A *Canad M A J*, 34 400 1936
- 4 Sprague, Randall G Blum B B Osterberg A E, Kepler Edwin J and Wilder, R M *J A M A*, 106 1701, 1936
- 5 Joslin, E P, Root H F, Marble, Alexander White, Priscilla, Joslin, A P and Lynch G W *New England J Med* 214 1079 1936
- 6 Rabinowitch I M, Fowler A F and Corcoran, A C *Canad M A J* 35 124, 1936
- 7 Folin Otto and Malmros, H *J Biol Chm* 83 115 1929
- 8 Hanssen, P *J A M A* 106 914, 1936

more injections of arsphenamine and twenty or more injections of bismuth or mercury, the incidence of satisfactory results varied from sixty-four to eighty-six per cent, depending on the duration of the disease when the treatment was started. The system by which these remedies were given was also shown to be a vital factor in the outcome of treatment. The patients who were treated by the continuous* system for a year or more obtained cures in eighty-four per cent of cases, those treated intermittently were less successful, while those treated by an irregular system were rewarded by cure in only fifty-five per cent of cases. Patients whose treatment was begun during the first week of the disease, when the chancre was present but the blood test had not as yet become positive, showed the highest incidence of cure (86 per cent), the next most successful results were noted among those who had a full crop of secondary skin lesions, whereas for those who had a chancre and a positive blood Wassermann but in whose cases the secondary rash had not developed, the incidence of cure dropped to sixty-four per cent.

The recent report of the survey of the health organization of the League of Nations indicated that the intermittent system of treatment as carried out in Denmark resulted in a slightly higher incidence of cure than the continuous system of treatment had produced in this country. This is in a measure due to the fact that forty injections of arsphenamine, with a heavy metal, comprised a minimal cure, and that the health laws in Denmark require and enforce the treatment of all patients with early syphilis until they are cured. A comparison of the results of the continuous versus the intermittent

system of treatment in the League report was not conclusive because the continuous method of treatment is essentially an American development and has had comparatively little application in European clinics. Our recent experience with the continuous system, using a minimum of forty injections of arsphenamine and a heavy metal, indicates that the incidence of cure will be well over ninety per cent for patients with acute syphilis.

Although the system of treatment used is an important factor, the type of arsphenamine given and the dosage employed are likewise potent influences in the outcome of treatment. The old arsphenamine (606) was shown to be a more valuable agent than neoarsphenamine. Arsphenamine has a higher therapeutic index and a lower complication rate than neoarsphenamine. This does not mean that neoarsphenamine is an inefficient drug but merely that its present day popularity is the result of its comparatively simpler technical advantages and not of any superior therapeutic effects. The use of eight injections of neoarsphenamine as compared with six injections of arsphenamine tends to equalize the value of these drugs. For several years it has been the practice in some clinics to give small doses of the arsenicals in an effort to minimize the complications of treatment. This practice has resulted in a lowering of the therapeutic results in these institutions, as shown by a higher percentage of Wassermann-fast cases and a greater incidence of recurrent lesions in the skin and mucous membranes.

A comparison of the value of bismuth and mercury shows that bismuth is the superior of the two agents. The combination of arsphenamine and bismuth given by the continuous system resulted in the highest incidence of cure in cases of acute

Continuous treatment is defined as uninterrupted treatment with an arsphenamine and a heavy metal, whether administered in alternation or simultaneously. The distinctive feature of this scheme is its uninterrupted character, without purposeful rest periods. In this group were included patients receiving prolonged treatment, even though the continuity was broken toward the last by a lapse in treatment.

Intermittent treatment is that given with arsphenamine and a heavy metal, the continuity of which is interrupted by short intervals of rest throughout treatment, whether purposeful or not. The distinctive feature is the rest interval of four to six weeks after each course of treatment.

Irregular treatment is defined as treatment with an arsphenamine and a heavy metal which follows neither of the systems heretofore described, either consistently or approximately.

workers, fired with the facts that show why intensive treatment of early syphilis is essential, are potent cogs in the machinery of every therapeutic organization

The five clinics which comprise the cooperative group were selected because their case records were complete, in that they had recorded not only the kind and amount of treatment administered, but had also included serologic data on the blood and spinal fluid. There are many clinics in this country in which numerous patients are treated each year but their records are not complete and do not permit a statistical study of the results of treatment. The need for accurately recording the treatment and serologic data in a manner which will be legible and understandable a decade or two hence is therefore obvious. Not only interested but efficient and earnest clerical assistants are of paramount importance for such a successful record system.

I also believe that the creating of technical assistants is essential to the modern syphilologic clinic. These technicians should be taught not only the art of intramuscular and intravenous injection, but also the preparation of the materials for administration, the reactions which may follow, and the measures which counteract such manifestations, in addition they should be familiar with the contraindications for the use of the remedies employed. Such technicians, usually graduate nurses, have a status similar to that of the nurse-anesthetist. Many patients discontinue treatment for syphilis because of reactions to treatment resulting from a poor intravenous or an indifferent intramuscular technic of administration. Such difficulty may readily be overcome by the development of a dexterous technician who takes pride in her ability to get the needle into the vein at the first attempt and is chagrined when she produces infiltration of tissues at the site of injection. A knowledge of the impending signs of intoxication from the heavy metals may readily be taught such assistants. The supervision of dosage by physicians, the intervals between treatments, and the type of the remedy used is, of course, necessary.

The aim of treatment for syphilis may be said to be six-fold

- 1 Protect the members of the community from patients who are in the infectious phase of the disease
- 2 Cure when possible.
- 3 Increase the patients' life expectancy
- 4 Hold the disease in abeyance.
- 5 Relieve symptoms and discomfort if the other aims are not possible to achieve.
- 6 Prevent transmission of the disease to the patients' progeny

Although the patient with acute syphilis is highly infectious, the patient with latent or quiescent syphilis is but rarely so, and the patient with late syphilis is to all practical purposes incapable of transmitting the disease.

It is common knowledge that arsphenamine renders a patient with acute syphilis noninfectious, and the health laws of most of the states recognize this fact. However, in these same states legal codes are often inadequate because they fail to make provision for the few patients who do not permanently retain this noninfectious state. The term "chronic relapser" has been applied to these patients, and they are of great concern to you and me who are interested in public welfare because they are an unwitting source of many new cases of syphilis. Stokes,^{1,2} in reporting the cooperative clinics' survey, showed that in twelve per cent of the patients with early syphilis, infectious relapses on the skin and mucous membranes developed after treatment. However, eighty-seven per cent of these patients had received an inadequate amount of treatment, or less than twenty injections of arsphenamine. Of those patients who were adequately and intensively treated, the infectious lesions recurred in only six per cent of cases. It is to be emphasized that irregular, inadequate, and desultory treatment accounted for most of the relapses, and practically all of the infectious lesions reappeared during the first two years of the disease.

I believe it is universally agreed by syphilologists that acute syphilis is curable. It is unfortunate that our present-day knowledge limits such a statement only to the acute phases of the disease. The number of injections of arsphenamine and bismuth or mercury and the system by which the treatment is given are the potent factors in the production of cure. Among patients who received twenty or

a diagnosis. In other words the blood tests may be negative or positive in cases of latent syphilis.

The early phase of latency is especially significant, as it has been shown that the first four years of the disease is the period when the patient gives evidence of attempting to control the disease, or else that he is totally lacking in any such defensive mechanism. It might well be said that the importance of latency does not lie so much in the recognition of the latent state as in the fact that in the process of making such a diagnosis the status of the patient has been completely surveyed and that he has been found to be free of the manifestations of syphilis, because if presumptive clinical signs or symptoms of syphilis are demonstrated, the diagnosis of latent syphilis is immediately discarded.

Moore¹ reported the Cooperative Clinic Group's study of latent syphilis. He noted the probable outcome in cases of latent syphilis in which patients were not treated and found that about a third of the patients who were not treated during latency were cured, another third retained a positive blood test but remained free of symptoms for the rest of their lives and the remaining third manifested either benign or severe manifestations of the disease. When a study was made of the results of treatment in a group of patients with latent syphilis it was found that in eighty-five per cent of the cases in which patients were treated with bismuth alone, receiving forty injections or more, the serologic and clinical findings were negative. The results of bismuth therapy alone were about twice as good as from any combination of arsphenamine and bismuth or mercury. However, it is recommended that arsphenamine be given in conjunction with bismuth to those patients the latency of whose condition is of four years' or less duration, because of the more satisfactory control of the infectiousness.

A matter worthy of special comment is that of pregnancy in cases of latent syphilis. In seventeen per cent of women with latent syphilis the disease interrupted pregnancy or resulted in a syphilitic child. Hence, for women with this type of syphilis, irrespective of the Wassermann test or irrespective of the amount of treatment received prior to their hav-

ing become pregnant, adequate treatment should be given throughout pregnancy.

Cole⁵ has interpreted the Cooperative Clinic Group's study on the influence of syphilis in pregnancy. He has shown that a negative Wassermann in the case of a syphilitic woman does not assure her of a nonsyphilitic child, although the percentage of normal children born to these women is greater than to those who have a positive Wassermann.

When treatment for syphilis is started before the fifth month of pregnancy, ninety-one per cent of the children born are nonsyphilitic, whereas if treatment is begun after the fifth month of the pregnancy, thirty-eight per cent of the children born will have the disease. It is accordingly essential that treatment be given early and adequately during pregnancy—the earlier the better and the more adequate the better for the child's welfare since these women tolerate both the arsenicals and metals very well and there are but few instances of toxic reactions. It is especially urgent that intensive treatment be given the syphilitic woman throughout each pregnancy whether the Wassermann is positive or negative. Contrary to former impressions, pregnancy does not protect a syphilitic woman from clinical progression or relapse of the disease. In fact, it does the reverse and tends to predispose to an undermining of her resistance to the disease in the late stages.

The study of the two most common serious sequelae of the disease, namely, cardiovascular syphilis and neurosyphilis, has shown that our present methods of treatment are unable to cope adequately with these complications once they have become manifest. However, Cole,⁶ speaking for the Cooperative Clinic Group, showed that the modern treatment during the early phase of syphilis is highly efficient in preventing the development of cardiovascular disease. In 3,641 cases in which patients were adequately treated early in the course of the infection, syphilis of the aorta and heart valves developed in less than one per cent of the cases. On the other hand of the group who came to the clinics with definite signs of cardiovascular syphilis, sixty-two to eighty-four per cent, depending on the type of heart disease present, had never

syphilis of any of the therapeutic combinations

Why do certain patients with acute syphilis who adhere to the therapeutic program in all details fail to obtain a cure? Why do some patients with acute syphilis manifest signs of general paralysis of the insane or syphilitic heart disease several years after acquiring the disease in spite of strenuous and arduous therapeutic measures? I might also ask, why do certain patients who receive little treatment and some who receive no treatment at all obtain serologic and clinical "cures"? In short, why does treatment sometimes fail to produce "cures"? In answering these questions there are three factors, common to all infectious disease, which must be discussed, namely, (1) the causative organism, (2) the treatment, and (3) the patient

The organism which produces syphilis is known as "*Spirochaeta pallida*." There has been considerable discussion in the past apropos the existence of various strains of the *Spirochaeta pallida*. For example, it has been shown in the laboratory animal that a certain strain of the organism has a special affinity for the central nervous system, while other strains may predispose to the development of lesions of syphilis in the heart, skin, or liver. The hypothesis drawn from this concept infers that if a group of men are infected by one prostitute, they all should eventually manifest the same complications of syphilis. In clinical practice, however, this does not happen and proof is still lacking that there are specific strains of *Spirochaeta pallida*.

The second factor in the discussion as to why all patients treated for early syphilis are not cured is that of treatment. There is ample evidence available that the arsphenamines, in combination with a bismuth or mercurial preparation, not only prevent patients with acute syphilis from disseminating the disease in their communities, but also that such treatment actually cures a high percentage of the patients who are adequately treated. The evidence is incontrovertible that cures occur following the use of these remedies in a much higher proportion of cases than from any other scheme of treatment or from any other therapeutic agent thus far described. The arsphenamines and heavy metals fail to produce cures in all cases, probably because in those patients for whom treatment fails there is an inherent lack of resistance to the disease.

Accordingly, the patient is the third factor to be discussed, particularly as to why treatment sometimes fails to cure those with acute syphilis. It is well-known that certain patients are cured of syphilis by a few injections of the specific drugs. It is less commonly known, but nonetheless well-established, that some patients spontaneously rid themselves of the disease without therapeutic aid. Such patients have an active defensive mechanism,—a high resistance to the infection that was probably present before the disease was acquired and was not produced by it. Bruusgaard³ has shown that approximately thirty per cent of patients who acquired syphilis and were observed for fifteen or more years were spontaneously cured, and that an additional fourteen per cent had only a positive blood test to show. The serious sequelae of the disease, such as syphilis of the heart and large blood vessels and syphilis of the central nervous system, occur equally in four per cent of the cases. The report of Bruusgaard was not advanced as an argument against the treatment of syphilis, but was the first published report of a large group of patients with acute syphilis who were not treated but were adequately observed for fifteen years. The Co-operative Clinic Group's study also showed that although 60 per cent of the patients who were not treated became symptom-free 96 per cent of those who were adequately treated did likewise. This finding, when augmented by the need for treatment to prevent patients with early manifestations of the disease from infecting others, is sufficient reason why individuals with acute syphilis must be treated.

Latent syphilis is an interesting and a vital stage in the life cycle of the individual who has syphilis. Latent syphilis may be defined as that period in the course of the disease when there is a complete clinical absence of the signs and symptoms of syphilis. Latency may appear after the second year of the infection, and the infection may remain latent for the rest of the patient's life, on the other hand, latency may be the quiescent period just preceding the appearance of the serious manifestations of the disease. A diagnosis of latent syphilis may be made only after a careful clinical search has failed to reveal evidence of the disease on the skin, in the special senses, viscera or bones, or central nervous system, and only when the spinal fluid is found to be negative. The status of the Wassermann or flocculation tests is not essential to such

The mild reactions, in the order of frequency, consisted of gastrointestinal upsets, nitritoid reactions, slight skin eruptions, pruritus, and mild irritability of the kidney. The severe reactions consisted of jaundice, severe exfoliative dermatitis, ocular damage, blood dyscrasias, hepatitis, and encephalitis. Arsphenamine and neoarsphenamine had a similar incidence of such reactions, whereas the reactions to sulpharsphenamine and tryparsamide (ocular) showed a considerably higher incidence. Silver arsphenamine and bismarsen had lower incidences of reaction.

The bulk of these reactions appeared during the first course of treatment. Patients are encountered who show reactions to one type of arsphenamine but are able to complete treatment when another form of arsenic is administered, when the dosage is decreased, or when treatment is stopped for several months and then reinstituted. The mild reactions are not a contraindication to attempting further treatment, but, following the severe reactions, such as exfoliative dermatitis and hepatitis, the utmost caution must be exercised in administering further treatment of any type. Jaundice occurred in one per cent of the patients treated, while exfoliative dermatitis was noted in 0.7 per cent. The other reactions were all considerably

lower in incidence. The milder reactions are the more common, as in a total of 177,360 injections, mild reactions occurred in 12.6 per cent and severe reaction in 2.3 per cent. Death occurred in seventeen cases, eight patients dying of hemorrhagic encephalitis, two of toxic hepatitis, three of blood dyscrasia, and four of exfoliative dermatitis. In most of these cases the reaction leading to death appeared following a few injections of an arsenical, usually in cases of early syphilis.

With the therapeutic agents available now, both specific and nonspecific, we are able to cure a high percentage of patients with early syphilis, add years to the life of those with latent syphilis or those with the benign forms of syphilis, restore a portion of those to their jobs or to an earning capacity who were previously restrained in hospitals for the insane, and alleviate the symptoms of most of those who are in distress from involvement of the central nervous system. For those patients with syphilitic heart disease our efforts may relieve symptoms and add a few years to their lives if the process has not advanced too far. May I again stress the fact that the way in which the late complications of syphilis are to be avoided is by the intensive and adequate treatment of the disease during its acute or early phase.

References

1. Stokes, J. H., Cole, H. N., Moore, J. E., O'Leary, P. A., Wile, U. J., Parran, Thomas, Jr., Vonderlehr, R. A., Usilton, Lida J. *Ven Dis Informa* 15 1-13 (Apr.) 1934.
2. Stokes, J. H., Usilton, Lida J., Cole, H. N., Moore, J. E., O'Leary, P. A., Wile, U. J., Parran, Thomas, Jr., McMullen, John. *Ibid*, 15 1-24 (Nov.) 1934.
3. Bruusgaard, E. *Arch f Dermat u Syph* 157 309, 1929.
4. Moore, J. E., Cole, H. N., O'Leary, P. A., Stokes, J. H., Wile, U. J., Clark, Tahaferro, Parran, Thomas, Jr., Usilton, Lida J. *Ven Dis Informa* 13 and 14 1-56 1932 and 1933.
5. Cole, H. N., Moore, J. E., O'Leary, P. A., Stokes, H. H., Wile, U. J., Clark, Tahaferro, Parran, Thomas, Jr., Usilton, Lida J. *Ven Dis Informa*, 14 173, 1933.
6. Cole, H. N., Usilton, Lida J., Moore, J. E., O'Leary, P. A., Stokes, J. H., Wile, U. J., Parran, Thomas, Jr., and McMullen, John. *Cooperative clinic studies in the treatment of syphilis: the effect of specific therapy on the prophylaxis and progress of cardiovascular syphilis*. Read before the ninth International Congress of Dermatology, Budapest, Hungary, September 15 to 21 1935.
7. O'Leary, P. A. with other cooperating clinic directors and the United States Public Health Service. Unpublished data.
8. Cole, H. N., Moore, J. E., O'Leary, P. A., Stokes, J. H., Wile, U. J., Clark, Tahaferro, Parran, Thomas, Jr., Usilton, Lida J. *Ven Dis Informa*, 14 173, 1933.

Nature always hangs out a little flag, which when seen and understood points to the diagnosis.—J. B. DeLee

If a doctor's life may not be a divine vocation, then no life is a vocation and nothing is divine.—Stephan Paget

Medical societies are no longer the formal, cumbersome and slow-moving organisms that formerly slumbered peacefully and ineffectively between annual sessions.—*Minnesota Medicine*

The wiser task of science is to enhance life rather than to prolong it.—Lord Horder

received any previous treatment for syphilis. The blood Wassermann was positive in only seventy-nine per cent of the cases, and in fifty-six per cent of them a positive spinal fluid was detected.

Treatment of cardiovascular syphilis may ameliorate the symptoms and prolong the patient's life, depending on the severity of the involvement of the heart and blood vessels when treatment is begun. Increasing the life expectancy from three months to two years on the average is all that can be expected in these cases. The best treatment of cardiovascular syphilis is prophylactic, namely, the adequate treatment of early syphilis.

I have been studying the results in the prevention and treatment of neurosyphilis.⁷ These reports are not as yet completed, but the study has brought out several points which are worthy of emphasis. Asymptomatic neurosyphilis is that phase of the disease characterized by a positive spinal fluid test, but in which neither signs nor symptoms of involvement of the central nervous system are present. This is a significant type of neurosyphilis, not only because it is the forerunner of such complications in the nervous system as locomotor ataxia and general paresis, but also because it is a form of the disease that shows favorable response to treatment when such treatment is adequately applied.

About a third of those who acquire syphilis have a positive spinal fluid, usually during the first few years of the disease. In some of these cases the fluid becomes negative spontaneously or with but little treatment, in other cases the fluid becomes negative only after strenuous, intensive, and specialized forms of treatment, whereas in still other cases the spinal fluid remains positive in spite of treatment. It is in these last cases that the late types of syphilis of the central nervous system develop, namely, locomotor ataxia or general paresis.

It is fortunate that in the majority of cases of asymptomatic neurosyphilis the spinal fluid will revert to negative following the so-called routine treatment with arsphenamine and bismuth or mercury. In those cases which do not show a favorable response, augmenting the program of treatment with intraspinal injections or fever therapy may be necessary. By

the use of various combinations of treatment we are able in sixty-five per cent of the cases of asymptomatic neurosyphilis to produce and maintain negative spinal fluids. This is equivalent to saying that in sixty-five per cent of cases in which patients are destined to have syphilis of the nervous system, by efficient treatment these serious sequelae of the disease may be prevented. When these complications have become manifested in the nervous system and the patient is showing definite signs that the spinal cord or brain, or both, have become involved, the results of treatment are less encouraging.

I am sure most of you are familiar with the fact that malaria has now been used for the past twelve years in the treatment of certain types of neurosyphilis, and that electrical units which increase the body temperature have been developed to use in place of malaria therapy. From my own experience I believe that the results from malaria therapy are superior to those secured by the electric units, although both methods have certain advantages. It is significant that the majority of the reports in the medical literature of this country and Europe have revealed that about thirty per cent of the patients who had general paresis were able to return to work following the fever treatment. Prior to the use of fever therapy we had little hope of helping these patients. May I again emphasize the fact that the best treatment for neurosyphilis is the adequate and intensive treatment of early syphilis, for as a result the incidence of neurosyphilis will be held to a minimum.

I have purposely avoided mention of the results of treatment in congenital syphilis, syphilis of the special senses, and the benign forms of the disease, such as involvement of skin or bone, as these reports from the Cooperative Clinic Group's studies will not be available until next year.

Thus far I have included the good results of treatment, but before completing I wish to call your attention to some of the complications which accompany the treatment of syphilis. Cole⁸ studied the Cooperative Clinic Group's material and noted two types of reaction to arsphenamine: the mild and the severe.

puncture, a very helpful method of diagnosis which is often neglected. Procedures recommended in the literature are punctures in the left xiphocostal angle upward under the costal margin into the distended pericardial sac (Osler), and punctures through the third, fourth or fifth left, and fourth or fifth right interspaces, diagonally downward. However the most direct approach seems best, namely a puncture through the fourth or fifth left interspaces, three inches from the left border of the sternum. Either of these locations avoids the pleura. Care must be taken to avoid engaging the heart muscle, which can be accomplished by observing the free needle from time to time during its introduction. If it enters the heart muscle ever so little the cardiac impulse will be transmitted to the needle which will oscillate characteristically. No harm follows a slight engagement. Repeated punctures should not be made in presence of pus.

Pathology

Empyema of the pericardium usually starts as an acute pericarditis, fibrinous in nature, later becoming serous, then purulent, closely simulating changes leading up to empyema of the pleural cavity. The accumulation of pus increases in size more or less rapidly, distending the pericardium and embarrassing heart action. Many thick shreds of fibrin may form. The pericardium becomes thickened and is covered with a fibrinopurulent exudate. This pus has a peculiarly mucilaginous quality not seen in pus from the pleural cavity. It dries quickly and becomes very adherent.

In long-standing cases the inflammation may penetrate to the nearby pleura or mediastinum giving a pleuropericarditis or mediastinitis. This causes great thickening of the tissues about the heart so that they may surround it as an adherent blanket. If these adhesions are not gradually disintegrated by heart action and natural resolution they become permanent and we have a condition known as chronic constrictive pericarditis or Pick's disease, and a permanently disabled heart.

Treatment

Paracentesis of the pericardium has been mentioned as a diagnostic method. If pus is obtained the aspiration should be continued until as much fluid as possible has been removed. The relief afforded is in proportion to the amount removed, but unlike aspiration of the pleural cavity, the exit of the first one or two hundred cubic centimeters has a remarkably stimulating effect upon heart action.

As soon as possible after diagnosis is made the pericardium should be incised and thoroughly drained. This procedure offers practically the only chance of complete recovery. Unlike the pleura, the pericardium seems to be very tolerant to surgical procedures, does not seem to give rise to acutely painful sensations, and rarely gives rise to shock.

The condition of the patient will usually demand local or rectal anesthesia. Removal to the operating theatre may be impossible. The main precaution in the operation is to avoid opening the pleural cavity, for reasons self-evident. Either the fourth, fifth or sixth left costal cartilages should be resected beginning at the sternum, tying the internal mammary artery if severed and exposing the pericardium in the area free from pleura. In early cases the distended pericardium will be felt as a tense rounded sac, nonadherent to surrounding structures. The sac should be incised longitudinally at its most dependent portion. After evacuation of free pus the sac may be explored with the finger and adhesions broken. A saline irrigation may be used if desired. Drainage must be free and may be obtained either by insertion of gauze or rubber dam, but not in sufficient quantity to embarrass heart action. Rubber tubes should not be used. It will be found difficult to keep drains in place as heart action tends constantly to extrude them from the incision.

Shipley, who operated upon eleven cases successfully, uses open drainage by trans-sternal approach in children and the xiphocostal approach in adults followed by the Dakins technic. Other operators use negative pressure drainage, others gauze packs and rubber tubing. Effective drainage has been secured without foreign

EMPYEMA OF THE PERICARDIUM

Pyopericardium

DAVID H. HALLOCK, M D, F A C S, *Southampton*

Major, Med Res Corps, U S Army From the Surgical Service Southampton Hospital

Empyema of the pericardium is that phase of pericarditis which comprises the collection of a purulent exudate in the pericardial sac. The usual signs and symptoms of pericarditis with effusion are present and are familiar to the reader. It is very unusual for such an exudate to become purulent, but when this complication does occur, the case immediately becomes surgical, and on prompt surgical treatment the recovery of the patient depends. Pyopericardium is rarely a primary condition but usually occurs as a complication of some acute bacterial infection. In virulent cases pus may generate rapidly and death follow in from three to four days, almost before intervention is possible.

Etiology

The source of this infection is by way of the blood stream from some primary focus. Rarely it arises from direct extension from the pleura or mediastinum. Pneumonia is the primary disease responsible for by far the greatest number of cases. Occasionally it follows in the course of an acute purulent arthritis, also in tuberculosis, the frequency being in the order named. Scattered cases have been reported following acute rheumatic fever, scarlet fever, septic processes such as acute osteomyelitis, puerperal and intrathoracic infection, and also following cardiac infarction. Associated cardiac disease is present in many cases but with the exception possibly of septic cardiac infarction, has no part in the etiology. Tuberculosis of the pericardium may give huge collections of fluid, as much as four liters having been removed at one time from the pericardial sac. The fluid is often hemorrhagic as well as purulent. Tuberculous pericarditis is most apt to be found in advanced pulmonary or miliary cases and is frequently overlooked as a terminal infection.

Symptoms and Signs

The symptoms and signs of this condition are those of fluid in the pericardial sac. Precordial pain is not always a symptom. Usually distinctive symptoms are masked more or less completely by those of the primary disease, as occurs in pneumonia. Purulent pericarditis should be thought of in cases of pneumonia in robust adults where the heart shows signs of beginning failure before the crisis, or after the crisis, when there is prolonged convalescence with persistent fever. If the collection of fluid is large the cardiac impulse disappears, cardiac and aortic dulness become much extended, heart sounds become very weak and rapid, and the pulse may be reduced to a slight flutter. In children and young adults bulging of the chest may be observed. This sign is rare in adults due to costal rigidity. The x-ray picture is distinctive (Fig 3), giving the wide shadow typical of a distended pericardium.

Whenever the amount of thickening and induration of the pericardium and accumulation of pus occurs to the extent that the heart action is markedly embarrassed, we get the series of symptoms and signs known as "inflow stasis." The heart, restrained by its surroundings, alternates between systole and slightly relaxed systole. Full diastole does not take place. The right and left hearts have no opportunity to fill with blood before the succeeding systole, and thus arises a venous stasis of the entire body. This stasis soon manifests itself by a massive anasarca with great enlargement of the liver. If unrelieved, death results from circulatory stasis.

Diagnosis

Pyopericardium can be differentiated from simple effusion only by exploratory

cures and one (8%) improved, using the Delorme operation. Venus reports seventeen resections in which series all cases were improved. He states that a complete cure cannot be expected. J. E. Summers reports seventy-five per cent improvement in thirty-eight chronic cases reported in the literature. Smith and Willins from one hundred forty-four cases of chronic adherent pericarditis report sixteen cases of proved calcification of the pericardium following infection, fifteen cases being proved by autopsy, one in life by x-ray. Twelve were males and three females. Death was from heart failure. Calcification is frequent in tuberculous cases.

Thus we see that the immediate as well as the late prognosis in purulent pericarditis is serious. Immediate drainage is imperative no matter how sick the patient may be, and offers the only hope. The majority of cases die during the acute phase, a small number survive unoperated and become chronic invalids. In these few the radical resection of the thickened adherent pericardium may help a small number, but complete cure is not to be expected.

Case Report

T. K., aged twenty-one, occupation, farm laborer, was admitted Sept. 25, 1935.

Chief complaint Pain in the chest and cough.

Family history Irrelevant.

Past history Influenza five years ago.

Present illness "Caught cold" one week before admission. Lay on ground under tree for some hours while sick. Became worse two days before admission and was put to bed suffering with shortness of breath, cough, and fever.

Physical examination Very well-nourished and developed young man lying in bed in acute respiratory distress, suffering with pain in the left chest. T 104° P 130, R 28. Coughs at intervals and expectorates a dark sputum. Head. Tongue coated. Otherwise normal. *Chest* Marked dullness over lower left chest posteriorly, extending to left front where less marked. Vocal fremitus and resonance are increased over this area. Prolonged expiration. bronchial breathing, and many moist rales are heard over lower left lobe behind and to less extent in front. A few moist rales are heard over the lower right lobe behind. No dullness. Heart sounds are of good

quality but rapid. No murmurs are heard. Cardiac dullness percusses to three cm beyond right border of sternum, heart being definitely displaced to right. On the left cardiac dullness merges with that of



Fig 3 *Twelfth day* Consolidation as in Fig 2. Heart shadow very markedly enlarged both to right and left. Aortic shadow twice normal width.



Fig 4 *Seventeenth day* Shadow of left lower lobe mottled in appearance. Cardiac shadow reduced almost one-half in size and surrounded by halo of haziness. Aortic shadow much smaller.

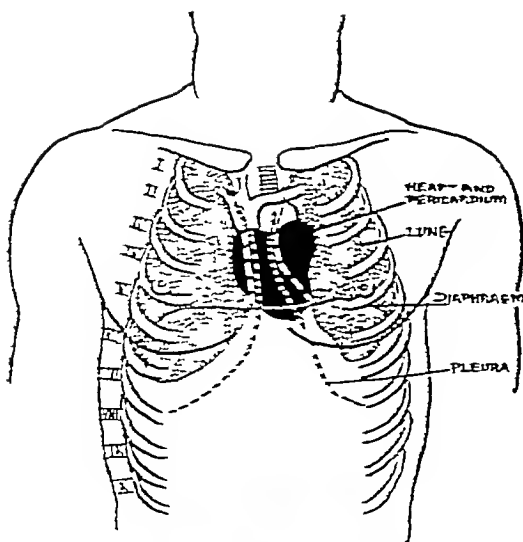


Fig. 1

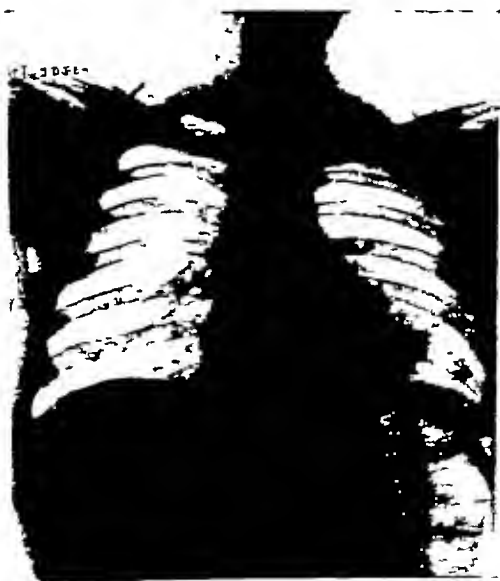


Fig. 2. *Third day.* Portable film of chest shows shadow of consolidation of lower lobe of left lung. Heart shadow displaced to right and enlarged both to right and left.

substances simply by posture, such as lying on the left side.

Unfortunately the condition of many patients is such that the least extensive surgical procedure which will secure relief is imperative. This is illustrated in the case here reported. In such cases we must be satisfied with simple intercostal incision and drainage with a carti-

lage resection later if necessary, when the patient improves sufficiently. Postural drainage should be especially useful in these cases. In early cases drainage may not persist beyond ten days and resection be unnecessary.

The use of the Carrel-Dakin technic is not advocated because not only is it unnecessary but also because the tubes and solution have been shown by Beck to be very successful in the production of chronic adhesive pericarditis experimentally in dogs the adhesions which formed being described as "strangulating" in type.

The use of air-tight negative pressure method of drainage is not advocated because it necessitates the presence of tubes within the pericardium, interferes with free drainage, and prolongs convalescence by favoring cardiac adhesions. A heart functioning well enough to support life while compressed in a sac of pus will find little embarrassment from operating at atmospheric pressure. With the patient at rest there is no inflow and outflow of air through the pericardial opening during respiration as through a thorocotomy for pleural empyema. Only during violent coughing does this rush of air take place. It is easily controlled by the dressing in place which acts as a negative pressure valve if such is needed.

Prognosis

The prognosis in such cases is favorable only if pleuromediastinal changes have not taken place. Venus cites three hundred acute cases, one hundred ninety-seven of which were operated upon; seventy-two (40.5%) were cured, and six (3.1%) were improved. Bogard cites one hundred seventy-one cases reported up to May 1931 with seventy-seven early deaths and ninety-four recoveries (45% mortality). Porter cites fifty-one cases incised with twenty recoveries and thirty-one deaths (60% mortality).

If pleura or mediastinum become involved we later have chronic constrictive pericarditis which can be cured only by pericardial decortication (Brauer's operation). Otherwise the patient remains a hopeless invalid. White cites twelve resections of the chronically thickened pericardial tissues with six (50%) complete

cures and one (8%) improved, using the Delorme operation. Venus reports seventeen resections in which series all cases were improved. He states that a complete cure cannot be expected. J. E. Summers reports seventy-five per cent improvement in thirty-eight chronic cases reported in the literature. Smith and Willins from one hundred forty-four cases of chronic adherent pericarditis report sixteen cases of proved calcification of the pericardium following infection, fifteen cases being proved by autopsy, one in life by x-ray. Twelve were males and three females. Death was from heart failure. Calcification is frequent in tuberculous cases.

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Fig 4 *Seventeenth day* Shadow of left lower lobe mottled in appearance. Cardiac shadow reduced almost one-half in size and surrounded by halo of haziness. Aortic shadow much smaller.



Fig 5 *Thirtieth day* Shadow of consolidation in left lower lobe almost disappeared. Heart shadow only slightly larger than normal. In the right chest radiograph shows shadow of large accumulation of fluid, with typical fluid line.

the pulmonary lesion. *Abdomen* Distended and tympanic to percussion. Markedly tender along both costal margins. Liver, kidneys, and spleen not felt. No fluid wave. *Extremities* No edema.

Diagnosis Acute lobar pneumonia, left lower lobe. *Clinical pathology*

Urmalysis Albumin—3 plus, hyaline and granular casts, few leukocytes. Albumin and leukocytes persisted throughout. Casts disappeared after first specimen.

Blood count Hgb eighty-five per cent fell to seventy-eight per cent at lowest. RBC 4,860,000 to 3,990,000. WBC 40,450 to 14,550. PMN ninety-two per cent to eighty-two per cent. Lymph six per cent. Myeloc, two per cent.

Sputum Type I pneumococcus (Sabin-Neufeld method).

Pericardial fluid Yellow, purulent in appearance. *Smear* Many pus cells and Gram positive diplococci. *Culture* Gram positive, lancet-shaped diplococci, pneumococcus, type I by Sabin-Neufeld method.

Blood Chemistry NPN twenty mg per 100 cc blood. Creatinin 17 mg. Wassermann Negative.

Course

Following intravenous administration of

type I antipneumococcus serum the temperature gradually fell from 105 to 101° F on the thirteenth day. Aspiration of the left chest twice gave negative results. After the thirteenth day the temperature again rose. X-ray on the twelfth day showed fluid in the pericardial sac. Aspiration on the pericardium on the fifteenth day gave 100 cc of pus. On the seventeenth day the pericardium was incised and about one liter of purulent fluid was evacuated. Profuse daily drainage was aided by the fact that the patient elected to sleep on his left side. Nine days after incision the temperature reached normal. Two days thereafter (28th day) the temperature rose to 104 degrees and a general anasarca began to develop. On the thirty-fourth day aspiration of the right chest gave 250 cc of clear straw colored fluid. The abdomen became markedly distended and gave a very distinct fluid wave. The liver soon reached twelve cm below the right costal margin and became very tender and painful. The face and hands were very edematous. By fluid restriction, ammonium chloride forty-five grams by mouth daily and two cc of salyrgan (mer salyl) intravenously every other day, the anasarca gradually subsided without further paracentesis. By the forty-eighth day the liver edge had disappeared behind the



Fig 6 *Sixty-first day* Heart shadow normal in size, surrounded by area of haziness. Aortic shadow normal. Resolution of lower left lung practically complete. No fluid in pleural cavity.

costal margin and very little fluid remained in chest or abdomen. Temperature was 100, pulse 110 to 94 and regular. Patient was allowed up in chair without dyspnea or other cardiac embarrassment, and discharged on November 29 (65th day) able to be up and around and care for himself. Physical signs were negative, incision completely healed. Radiograph showed cardiac shadow of normal size.

Operation

Because of critical condition patient was not removed to operating room. Iodine and alcohol preparation over precordium. Fourth left costal interspace infiltrated with two per cent novocain to the pericardium. Aspirating needle inserted and pus obtained. Needle was left *in situ*. A longitudinal incision three inches long was then made in the fourth interspace beginning three inches from the left sternal border, and deepened through the intercostal muscles. The chest was then entered with the finger which felt the pericardium as a tense distended sac, non-adherent to surrounding tissues. The most dependent part of the sac was incised by a longitudinal incision, the blade of the scalpel inclining away from the heart. About one liter of moderately thick yellow pus was evacuated. There was no shock and very little pain. There was no rush of air backward and forward into the

cavity except when the patient coughed violently. The patient was then turned on the left side to favor drainage and a six-inch rubber dam drain inserted into the pericardial sac and anchored to the edge of the incision. The patient was immediately relieved by the procedure.

Conclusion

This case is reported because of the rarity of the condition and also because it demonstrates most of the symptoms and signs that might be met with in a similar case, including the state of "in-flow stasis." This phenomenon occurred shortly after drainage was established. The patient began to accumulate fluid throughout the body, in abdomen, chest, and extremities. The liver became huge and very tender, the abdomen was distended with several gallons of transudate. Fortunately it was possible to control this accumulation by medical means. As much as five liters of urine was passed in twenty-four hours on a one-liter fluid intake. After two weeks of anasarca the fluid gradually ceased to collect and one week later the liver edge had disappeared above the costal margin.

24 No MAIN ST

References

- 1 Chartard *Johns Hopkins Hosp Rep* 15 155, 1910
- 2 White, P. D. *Lancet*, 2 597, 1910
- 3 Kolb *Berlin Klin Wochenschrift*, June 3 and 10, 1913
- 4 Boxwell *Dublin Jour Med Sci* August 1912
- 5 Summers, J. E. *Surg Gyn & Obst* 35 92 1917
- 6 Smith & Willins *Arch Int Med* 50 171, 1932
- 7 Shipley *Surg Gyn & Obst* 54 280, 1932
- 8 Burwell and Strayborn *Arch Surg*, 24 106 1932
- 9 Bigger, I. A. *Ibid* 24 574 1932
- 10 Biogard, J. D. *Am Jour Surg* 17 1, 1932
- 11 Beck, C. S. *J.A.M.A.* 97 824 1931
- 12 Camp and White *Jour Med Sci* 184 782, 1932

DO YOU KNOW?

The first bifocal eyeglasses were invented by Benjamin Franklin.

Homicides and suicides are decreasing with the improvement of economic conditions, but fatal accidents are on the increase.

The first ambulance service was started in June 1869, by Bellevue Hospital, New York City, under the direction of Dr. Edward B. Dalton.

Athlete's heart is supposed to be an ailment resulting from active exercise. There is no evidence that a healthy heart is harmed by athletic activities.

Good posture is a sign of self-respect, besides being conducive to health.

Each of the billions of red blood-cells in the body contains, besides life-giving oxygen, a charge of electricity. Two scientists of the Biological Laboratory at Cold Springs Harbor, Long Island, have measured this charge. The electricity of the blood-cells of a full-grown man they found, would light a twenty-five watt bulb for five minutes.

Shakespeare said: "They are as sick as surfeit with too much as they that starve with nothing."—*Excerpts from the Bulletin issued by the Bureau of Public Relations of the Medical Society of the State of New York*

MUSCLE INJURIES

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This paper is limited to disorders of the muscular system following trauma. Disturbances of the muscle associated with injuries of other structures, such as bones or joints, are not discussed as it is thought they are better understood when described with the pathology influencing them.

Etiology of Muscular Injuries

Muscles may be injured by direct trauma or indirect violence. The direct trauma may be due to a blow or a laceration caused either by a sharp instrument or a projectile. The following case is reported as typical of this condition.

Man fell a distance of five feet from a ladder landing flat on his back. Experienced pain over his entire back below the scapula. This pain continued and later became localized in both lumbar regions. X-ray plates of the back revealed no evidence of bony injury. The pain was aggravated by bending and more so by attempting to lift objects.

Examination The patient indicated the region on each side of the spinal column extending from the twelfth rib to the iliac crest as the part injured. Palpation of these parts revealed small tender areas of induration scattered throughout the erector spinae muscle groups, and many brownish discolorations of the skin. The muscles were spastic. Motions of the back were limited.

Diagnosis Contusions of the back muscles with focal areas of cellular injury and induration.

Treatment Rest, immobilization of the back by means of adhesive. Applications of heat infrared being used for the first two weeks, then diathermy. Massage begun at the end of the first two weeks and gradually intensified. Following six weeks of this treatment, gradually increasing exercises initiated.

Disability Returned to work at the end of two months, and heavy work one month later.

Permanent defect When this patient was last seen, he complained of dull spasms of pain in the back during damp weather and

dull ache following prolonged exercise. Examination of this area demonstrated thickened areas within the substance of the muscle, some being tender. There was no defect in motion of the back. The attacks of pain will probably continue a year or more.

Indirect Injury

Indirect injury is brought about by a contraction of the muscle under unusual circumstances, as follows.

1 CONTINUED USE AFTER FATIGUE

Patient stated that he was employed as handy man in a building, his regular occupation being that of a painter. He was placed at work requiring no physical effort for a period of nine months and then started painting ceilings. He experienced pain in the right arm after the first week, the pain being a constant ache aggravated by exercise and of greater intensity at the end of the day. This pain gradually increased. At the end of the third week the arm became weak and the man was unable to accomplish the proper amount of work. The following week he was unable to continue working as he was unable to hold the right arm over his head for more than a few minutes.

Examination Flabbiness of the muscle about the right shoulder, these muscles having less tone than those about the opposite shoulder. There was no tenderness, no muscle atrophy, and no defect in motion but the man showed fine fibrillations in the muscles about the right shoulder when the right arm was elevated to the vertical for a few minutes.

Diagnosis Fatigue of muscle about right shoulder.

Treatment Absolute rest for a period of one month. The man was allowed to take his vacation during this period. Light work was then begun requiring no lifting or elevation of the arm. The man was encouraged, as he was afraid that the arm would not return to normal. Massage was administered three times weekly during the period of light work. At the end of one month, the man was able to undertake heavy work with no symptoms.

Disability Total one month, and partial one month.

Permanent defect None

2 SEVERE USAGE AFTER LONG PERIOD OF IDLENESS

Man stated that after a period of inactivity for several months he was placed at the task of lifting heavy bags throughout the entire working day. He experienced pain in the abdomen and back following this and two days later, during which time the pain and soreness had gradually increased. He was unable to rise from a prone position unassisted. He thought that he had been ruptured and was told by a physician that he had strained his abdominal muscles.

Examination Patient indicated the entire back from the tenth rib to the iliac crests, and the entire abdomen as the parts in which he experienced pain. As he indicated this area his hands passed from the lumbar spine obliquely forward and inferiorly, in the course of direction of the external oblique muscle. Palpation of this area revealed no masses, but tenderness was elicited upon deep pressure.

Treatment Infrared radiation for the first week, with addition of massage for the following two weeks.

Disability Three weeks

Permanent defect No symptoms at the end of three weeks

* CONTRACTION OF OR PULL UPON DISEASED MUSCLE, DUE TO TOXEMIA

Patient leaned forward and picked up a drawer and felt a sudden sharp pain in the right posterior chest. Pain gradually extended to the right side of the neck. Home remedies including heat from an electric bulb produced no results so a physician was consulted three days after the accident, the patient complaining of pain in the posterior right chest, right side of back, and wry neck with head tilted toward right side.

Examination General appearance, slender young man of asthenic appearance. Tired expression.

Tenderness and slight muscle spasm of right interscapular region. Rigidity of right sternocleidomastoid muscle with shortening, causing characteristic tilt of head toward right side.

Diagnosis Auto-intoxication, Strain of right rhomboideus and right sternocleidomastoid muscle.

Treatment Detoxication, baking, and later massage. Man was placed on a diet of fruit and vegetables with daily saline catharsis and infrared radiation of affected areas every second day. Upon appearance for third radiation treatment, patient had no symptoms and all signs had disappeared.

Disability Partial five days

Permanent defect None

4 SUDDEN ACTION IN UNUSUAL MANNER DURING AN EMERGENCY REQUIRING MORE FORCE THAN THE MUSCLE IS CAPABLE OF EXERTING

Patient attempted to throw a heavy case towards his left side. His helper stepped in the way and to avoid hitting him with the case, the man arrested the motion suddenly. He experienced sharp stabbing pain in both interscapular regions, aggravated by motions.

Examination Induration of muscles extending from spinal column to the medial borders of the scapulae. Muscle spasm and tenderness present throughout both interscapular regions. Pain experience upon pulling against resistance.

Diagnosis Strain of interscapular muscle groups.

Treatment Adhesive strapping extending transversely, pulling scapulae toward each other and obliquely over the shoulder to prevent upward movement of the scapulae. Improvement was noted at the end of one week and the patient insisted upon returning to work against advice. He discontinued work one week later and examination revealed muscle spasm, induration, and tenderness of the muscles of the lower one-half of the left interscapular region and the upper one-half of the right. Infrared radiation and massage was then begun, strapping being applied between treatments. Light exercise was begun at the beginning of the fifth week, and the man returned to work the following week.

Disability Six weeks. Probably prolonged by early attempt to work.

Permanent defect None

5 UNUSUALLY STRONG RESISTANCE TO CONTRACTION

Man assisting another man lift a garbage pail which he states was an unusually heavy one. They lifted it quickly and threw it over. He twisted his back in throwing the pail and experienced excruciating pain in the left side of the upper back. This severe pain continued and the man was unable to move his back in any direction.

Examination X-ray pictures revealed no bony injury. Patient indicated the left interscapular region as the part injured. Palpation of this region revealed a tender mass about four inches in diameter within the lower one-third of the left interscapular region. This mass was definitely within the muscle tissue. It was roughly spherical and projected three-quarters of an inch

above the surrounding tissues. Motion of the back was limited in all directions and caused pain in this mass.

Diagnosis Rupture of the fibers of the left rhomboideus muscle.

Treatment Back strapped transversely to pull scapulae together, and patient remained in bed for two weeks. Pain diminished but the patient was still unable to bend his back. After this rest period, patient was treated by means of diathermy and later the addition of massage. Duration of treatment was twelve weeks.

Disability Light work begun twelve weeks after injury. Heavy work two weeks later.

Permanent defect When this man was last examined (June 19, 1936—fifteen weeks after injury) he complained of a dull pain in the left interscapular region after hard work. Examination revealed thickening within the muscle tissues.

Prognosis Permanent thickening within the muscle and occasional pain for a year or more.

6 TEARING OF THE FIBERS DURING USE, DUE TO DEGENERATION AS RESULT OF AGE

While pushing a loaded hand car up an incline with left foot in front of body and right foot behind, man, aged sixty-two, experienced a sudden shooting pain in the calf of the right leg. Pain persisted and was so aggravated by walking that he was unable to continue working. He visited a physician who advised the application of hot towels. Two days later the swelling was considerable, so the man applied iodine without consulting a physician and a large blister resulted.

Examination Blister about one inch in diameter in center of calf of right leg. Purplish discoloration of skin over posterior surface of calf around blister throughout an area approximately three inches in diameter. Area swollen and tender, with a mass palpable just superior to the blister, being about one inch in diameter. Pain experienced in this discolored area with maximum intensity within the mass on flexion and extension of the ankle.

Diagnosis Rupture of fiber of right gastrocnemius muscle. Second degree chemical burn due to application of iodine.

Treatment Removal of skin from blister and application of antiseptic bandage. Application of diathermy, plates being placed above and below blister. Absolute rest. Later, massage following diathermy.

Disability Three weeks.

Permanent defect When last examined,

(June 15, 1936—six weeks after injury) he complained of the occurrence of pain in the center of the right calf following heavy work, a small mass located at the approximate center of the calf was tender. Occasional attacks of pain and tenderness will probably continue for a year or more.

These accidents produce acute disturbances of muscle function. Chronic disturbances sometimes follow, due to the development of fibrosis or calcification within the muscle substance. Fibrosis results from the healing of muscular defects or the organization of blood, but the factors responsible for the production of calcification are not altogether understood.

Calcification occasionally takes place within a fibrotic area following uncomplicated muscle injury, but true myositis ossificans usually develops only following complicated injuries, particularly involving the joints. This condition is, therefore, not considered in this communication.¹

Pathology

The pathology following muscular injuries resulting from direct or indirect violence is similar, the particular point of difference being distribution. The changes produced by direct trauma are usually limited to the portion struck or lacerated, whereas, when injury is due to muscle strain the pathology often extends throughout the muscle involved. This is not true if the muscle is torn, as the tear releases the tension on the other parts of the muscle, the pathology being practically limited to the part torn.

The immediate pathology may be divided into three types, which seldom occur alone and are often in combination. They are (1) exudation, (2) tissue severance and necrosis, and (3) hemorrhage.

In addition, certain physicochemical changes are supposed to take place in muscular fatigue which are not completely understood, but resemble those found in rigor mortis.²

Following muscular injury insufficient to cause muscle cell necrosis but sufficient to injure cell membranes, there is an accumulation of tissue fluids, lymph, and serum in the cellular space, causing an increase in tension and bulk. This causes pain by pressure on nerves which is in

eased by muscular contraction resulting further increase in tension³

When muscle cells are torn or killed, the pathology described is complicated by the addition of defects in the continuity of muscle tissue of varying sizes and many free or semi-attached particles of devitalized muscle fibers which may be considered as particles of foreign protein

Hemorrhage may be of two varieties, oozing from raw surfaces, or bleeding from a lacerated vessel

The effusion described in the first type of pathology ceases upon sufficient increase of the intercellular pressure. The cell membranes heal in approximately one week and the fluids are gradually absorbed—this process is usually completed within ten days to two weeks

Hemorrhage always occurs when muscles are lacerated. The resulting pathology depends upon the degree of bleeding, type, location, and the influence of the surrounding structures. Oozing from raw surfaces produces blood mixed with tissue fluids, a thin serosanguinous solution. If this takes place within the muscle, the result is similar to the first type of pathology described. If, however, this takes place on the surface and the surrounding structures are loose and capable of distension, the fluid accumulates in a pool, its limits being defined by fascial attachments and its size dependent upon the duration of the bleeding which is to some extent controlled by the resistance of the tissues. The following case report is an illustration of this condition

A case of canned goods fell on the left thigh. Patient experienced pain for a few minutes but experienced no further pain until nine days later. Patient then noticed a swelling on the anterior surface of the left thigh, he also experienced a sensation of stiffness in the left thigh but no pain or tenderness. Five days later, he reported for examination on account of persistence of this swelling

Examination Oval mass on the anterior surface of the left thigh, its long diameter vertical being ten inches in length, five inches in width, and projecting above the surface of the surrounding skin approximately two inches. Mass soft and fluctuant but not tense. Bluish discoloration present in the center of the lower one-third of the mass and on the lateral surface of the thigh

No tenderness or muscle spasm present at any point on the thigh or knee, no pain experienced upon moving these parts

Diagnosis Cyst on anterior surface containing fluid, most probably serum

Treatment Large needle inserted after anesthetization of skin by means of wheal of novocain. Approximately one pint of serum extracted. Pressure bandage applied and patient was allowed to continue his usual occupation. About one-sixth the original quantity of fluid reaccumulated. This was gradually absorbed without further treatment and one month after injury, examination revealed no swelling or other evidence of pathology upon the left thigh

Disability None

Permanent defect None

True hemorrhage takes place if the vessel is ruptured. If this occurs within the muscle substance the subsequent accumulation of blood is smaller than that resulting when the hemorrhage is relatively superficial but the mass is larger than that caused by oozing, as the pressure of the blood in the arteries and arterioles is greater than that of the muscle tissue and is therefore capable of pushing the fibers aside

Therefore, vessel rupture within the muscle but beneath an unbroken capsule may cause blood to infiltrate between the entire muscle and capsule and slowly penetrate through the muscle tissue. If the pressure is sufficient, this may result in considerable necrosis of cells and finally produce a sac surrounded by the fibrous capsule and containing blood and muscle tissue in varying degrees of vitality

If this capsule is torn and hemorrhage takes place the final location of the hematoma is dependent upon the distribution of the surrounding fascia, propulsive force of muscular activity, and gravity

Accumulations of serosanguinous fluids are usually absorbed, but occasionally, if the mass is large and the surrounding tissues relatively impervious, absorption does not take place and a cyst is formed

A hematoma may be either absorbed, liquified or organized. The smaller accumulations are more apt to be absorbed. When liquifaction takes place, a cyst is formed and fibrous tissue organization forms a hard mass⁴. This is infrequently infiltrated with lime salts

Symptoms and Signs

The usual signs following tissue injury are swelling, ecchymosis, induration, tenderness, heat, and limitation of motion. Any or all of these may be present. In addition, muscle spasms occur in the form of fibrillation, strong clonic contraction or continuous tonic contractions producing rigidity. Later, stiffness or lack of pliability occurs due to fibrosis.

Contusion and rupture of muscle fibers produce similar signs. In each instance a localized tender mass forms within the muscle. This tender lump has been given the lay name of "charley horse." Ecchymosis always follows contusion but is found after muscle rupture only when the affected muscle is superficial. If the entire muscle is torn across, two lumps are caused, with a depression between them.

The particular signs of muscle strain are muscle spasm, tenderness, increase of pain when the affected muscle or groups of muscles are used, and limitation of function.

When the strain is due to overexertion of untrained muscles, large groups of muscles are usually affected, and the signs are less intense than when severe strain has been produced by excessive contraction. If toxemia is a factor in the condition of the muscle, pain is experienced upon stretching the muscle, this pain being particularly severe at the tendinous insertions.⁵

Muscles that have been used for a prolonged period after fatigue produce different signs. Pain and tenderness may or may not be present but the muscle spasm is not present, the muscle being unduly flaccid and retarded in action.

The immediate evidence of hematoma formation is the presence of a smooth mass of uniform density. This may vary in size and consistency being soft and fluctuant due to the accumulation of serosanguinous material in lax tissues, but hard and tense if caused by actual hemorrhage into an underlying cavity. Ecchymosis may or may not be present. These formations may appear immediately or several days after accident, and if delayed in appearance may occur at some distance from the point of injury⁶ due to gravity or muscle action.

Permanent muscle injury is detected by the palpation of single or multiple hard masses within the tissue or a sensation of stiffness which varies from a reduction in flexibility of a part or all of the muscle, to a board-like condition with complete loss of pliability.

Diagnosis

Contusion and laceration of muscle are easily recognized by the history and evidence of trauma.

Muscle strain resulting from strenuous usage after a period of comparatively little usage is differentiated from that due to excessive contraction by attention to the difference in the degree of symptoms and signs, those following the last condition being more severe and continuing for a longer period of time.

Muscle strain complicated by toxemia may be diagnosed by a consideration of the general condition of the patient, usually of an asthenic toxic appearance and the characteristic signs, namely, aggravation of pain upon stretching the muscle rather than upon contraction of it, as in other types of strain. Furthermore, the pain generated by this movement is at or about the tendinous insertions of the muscle.

Rupture of muscle fiber is characterized by nodular, tender masses within the muscle tissue and hematoma formation by the occurrence of smooth tender masses, either within or without the muscle tissue.

Fatigued muscle presents an entirely different syndrome from any described, namely, weakness, retarded reaction, and increased pliability, whereas, fibrous or calcareous formation within the muscle tissue causes weakness but decreased pliability and varying degrees of stiffness. Diagnosis is not, therefore, difficult.

Treatment

Following injury, muscle tissue undergoes three periods of change—exudation, absorption, and regeneration.

Although these are not sharply defined for practical purposes, the duration of the first period may be considered seventy-two hours,³ the *second*, two weeks and the *third*, the interval between the end of the second and the return to normal.

the maximum point of improvement. The first two periods vary according to the severity of the injury and the second period also varies directly with the size of the swelling or mass.

Treatment consists of measures to reduce exudation, increase absorption, and restore normal function. Cold compresses are useful during the first period and absolute rest is particularly important.

Heat, in the form of infrared radiation or diathermy, massage, and function promote absorption. Infrared radiation appears to produce better results in muscle injury, diathermy in hematoma formation, and an electric pad or hot water bag may be used to either supplement the other forms of heat or alone if the others are not available.

If toxemia is a factor, absorption of noxious substances in the muscle is accompanied by elimination and change of diet. Albee² recommends a series of medicated colonic lavages. In tenacious cases these might be useful, but in the average case, strenuous and repeated saline catharsis will suffice. The diet is restricted to vegetables and fruits until all symptoms disappear. The important point is the recognition of the toxic factor, as in many cases the results of treatment are gratifying and rapid.

Massage encourages absorption by spreading the mass, thereby increasing the surface susceptible to absorption and stimulating the flow of blood and the interchange of fluids. If, however, it be too vigorous, tender, recently injured cells may be damaged resulting in exudation instead of absorption. The guide is sensation. Massage of acute injuries should be soothing and should be kept below the intensity necessary to produce discomfort. Massage should never begin until two weeks after injury, and then gently.

If there be no rupture of muscle fibers, no mass or hematoma formation, function without resistance or strain upon the muscle injured is beneficial as the contractions promote the circulation of blood and therefore absorption. If masses are present, absolute rest should be insisted upon until healing has taken place around the area, making further hemorrhage impossible. Two weeks is usually required for this process and the clinical signs of

its accomplishment are disappearance of heat, reduction of tenderness, and signs of stability.

The rehabilitation of muscle tissue is promoted by massage and exercise. This requires judgment in each case, the objectives being increasing intensity of both below the threshold at which discomfort is produced.

In the average case three periods of treatment a week are sufficient, heat applications requiring twenty minutes and massage ten to fifteen minutes. It is probable that daily treatments will shorten the disability and reduce the degree of permanent changes following severe injuries.

In the case of minor muscle injuries with no tissue necrosis, treatment is not a necessity. It affords relief to the patient and shortens the duration of symptoms but the condition will be cured by natural processes regardless of treatment.

However, if serious muscle injury with accumulation of necrotic tissue or blood are allowed to continue without treatment, the chances of fibrosis with subsequent permanent stiffness are greatly increased. The following is an example of this condition.

On March 28, 1935, patient slipped while standing on rear spare tire falling backward and striking his back against the bumper of a car standing behind. He visited a physician in August on account of continuance of back pain and was told that he had bruised his back but no treatment was recommended. Pain over the left side of the back continued and increased. Patient continued working, but on account of continued increasing pain consulted a physician again in March 1936. This physician found no pathology. Being dissatisfied and still experiencing dull, aching, constant pain aggravated by exercise, located on the left side of the back, the man visited a hospital where x-ray examination was made. He was told at the hospital that he had a crushed vertebra. He then visited a chiropractor upon the advice of friends and began regular treatment in April. The pain at this time had extended to the back of the left thigh and leg. It improved under treatment and by June 15, the pain in the thigh and the leg had disappeared and the pain in the back was less intense.

Examination. Stiffness of muscle of left side of back over an area extending from the iliac crest to the tenth rib and about

Symptoms and Signs

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FEVER THERAPY IN PSYCHIATRIC PRACTICE

P R VESSIE M D, *Briarcliff Manor*

Following the general interest in fever therapy we have treated a number of patients with stimulative fevers at Stony Lodge. These treatments, covering a period beginning in the Fall of 1933, were administered to a selected group of twenty out of one hundred and twenty-five admissions.

At no time was this form of therapy employed with the expectation that it might provide a radical cure. Hence, its application was mostly confined to those patients manifesting disturbed states which did not respond to ordinary measures. It was hoped that the sulphur treatment would serve to divert the patients from their intense psychological preoccupation by introducing an element of bodily concern.

To induce such fevers we used a one per cent preparation of sulphur in oily suspension. Usually from ten to twelve injections completed a course of treatment, the injections being given deep in the gluteus every other day before noon. The first injection consisted of one c.c. of the sulphur suspension, the second two c.c., the third and maximum dose was three c.c.

Compared with malaria and typhoid vaccine therapy the fever induced by sulphur can be easily controlled and the danger of hyperpyrexia is practically negligible. In all the patients under sulphur treatment we aimed to keep the fever temperature within the range of from 102 to 104°F, thus avoiding complications such as collapse and marked loss of weight. Rectal temperature was taken frequently in order to ascertain the highest point of fever elevation.

In some instances before the maximum fever temperature was reached sharp chills were observed. The fever temperatures appeared usually after ten or twelve hours, and, as a rule, subsided abruptly on the following morning. Respiration rate remained nearly normal. Heart rate never exceeded 120 beats per minute. Perspira-

tion was a common symptom. Secondary anemias did not develop from the small doses of sulphur. When there was no fever, the patients were permitted to be up and dressed and outdoors if the weather permitted. Graphic charts were kept of the temperature curves and pulse rate.

Schizophrenia

In the treatment of six male and two female schizophrenics it was found that a fever series covering twenty-one days brought no result which approached a recovery in any individual instance. But it was learned through repeated experiences that whenever such patients showed signs of catatonic excitement, the sulphur, if injected early, would frequently abort an oncoming episode. In some instances one injection would suffice; in others two or three injections were necessary to disperse the excitement. For one thing the fever created a condition which made these restless, disturbed patients disposed to remain in bed. Also the temporary local pain at the site of the injection undoubtedly diverted the patient from an exclusive preoccupation with his mental state.

It was because of this response to sulphur that it was used as a routine measure in typical schizophrenic situations and after repeated experiences we became confident that the sulphur treatment was a distinct aid in curbing excitement episodes which otherwise may have extended over a period of weeks.

There was, however, no evidence that the basic psychosis had in any way been altered. The absence of troublesome manifestations in behavior over a period of months may have given the impression of mental improvement. Nevertheless, there was a persistence of delusions and hallucinations, mental peculiarities, mannerisms, and other indications of deterioration.

Psychoneuroses

A man, aged forty-four, with a psychogenic neurasthenia of one year's duration demanded in a most aggressive manner the application of the latest treatment in psychia-

From the Clinical Service of Stony Lodge, Ossining

four inches lateral to the spinal column. Muscle thicker than those of the opposite side. Tender and resistant to touch. Examination of left thigh and leg, negative.

X-ray examination revealed depression of the left side of the fourth lumbar vertebra causing angulation of the spine above it and towards the left side about twenty degrees. No change in consistency or density of the body of the vertebra, demonstrating the fact that it had not been crushed.

Diagnosis Chronic fibrosis—myofascitis—of erector muscle of left side of back as result of severe contusion.

Treatment Heat and vigorous massage until maximum point of improvement is reached.

Prognosis Elimination of constant pain within a few months. Continuation of periodic attacks of pain initiated by atmospheric changes, emotional crises, and exercise.

The pathology of fatigued muscle is different and therefore the treatment required is different. The muscle cells have reduced vitality and reactivity, and need rest and food. This may be provided in a combination of rest of the organism and the application of heat and massage to stimulate the circulation of blood and interchange of fluids ordinarily produced by voluntary muscle contraction. When muscle tone begins to return, usually within two to four weeks, active motions should be started and gradually increased as the strength of the muscle increases.

Course and Disability

The period of disability and the percentage of possibility of permanent changes varies directly with the severity of the injury and the amount of muscle tissue involved. The average duration of disability is two weeks, the maximum three months.

The prolonged periods of disability usually follow falls of a considerable distance, the body landing prone or supine and consequently injuring large amounts of muscle tissue. Disability may be considered at an end when use of the muscle in its usual manner in no way aggravates

the symptoms and signs. The table below indicates the limits of disability to be expected following the various types of muscle injury.

Laceration	2 to 6 weeks
Contusion	0 to 6 weeks
Strain from overexertion	0 to 2 weeks
Strain from excessive contraction	1 to 6 weeks
Strain of the muscle	1 to 6 weeks
Muscle fatigue	1 to 6 weeks
Incomplete muscle rupture	2 to 8 weeks
Complete muscle rupture	3 months following operation

Hematoma formation does not cause disability, it is usually associated however with severe muscle injury. Another factor to be considered as influencing disability is the type of work required by the patient's occupation.

Incomplete muscle tear may be treated conservatively in the manner outlined, but complete rupture necessitates open operation and suture.

Permanent Defect

Permanent changes occur in a small percentage of muscle injuries. The percentage is reduced by active treatment. The defects occasionally expected are stiffness or weakness of the affected muscle, pain during atmospheric changes, and during or following exercise. The stiffness with contraction sometimes results in restriction of motion of the joint.

Conclusions

- 1 Proper treatment of muscle injuries requires a thorough knowledge of pathological processes.
- 2 Treatment of minor injuries reduces discomfort and the period of disability.
- 3 Treatment of severe injuries often prevents permanent pathological changes.

30 E. 40 St.

References

- 1 Taylor, H. L. *Shea R. M., and Argyr.* *Colorado Med.* 32 549, 1935.
- 2 Marx, R. *Cal and Western Med.* 38 96, 1931.
- 3 Buka, A. J. *Am J Surg.* 12 290, 1931.
- 4 Elsom, J. C. *Arch Phys Therapy.* 15 466, 1934.
- 5 Albee, F. H. *Am J Surg.* 23 70, 1934.
- 6 Tucker, W. E. *Brit M J.* 1 135, 1933.
- 7 Gilcreest, E. L. *J A M. A.* 100 153, 1933.

A SOUND POLICY

The Cleveland Academy of Medicine has recently informed the city Board of Education that injured athletes should be

cared for by physicians chosen by the family and not by the board of education.

REVIEW OF RADIOGRAPHS OF INFECTIOUS ARTHRITIS

Twenty-Four Cases—One to Four Years Following Fever Therapy

SOL C. DAVIDSON, M D, and STAFFORD L. WARREN, M D, *Rochester*

We are concerned in this study with the changes which might be shown in radiographs of joint structures in patients who have received either fever therapy alone, or a combination of fever therapy and a hot bath routine as the sole treatment for relief of symptoms associated with infectious arthritis.

Out of a series of eighty cases treated or observed over a period of from one to three years, there are only fifty-one who have had preliminary films or radiographic examinations for diagnostic purposes. But there were only twenty-four of this group in which it was possible to obtain films both before and after the treatment period. A part of this case mortality is perhaps due to the failure in the effectiveness of the treatment, but, in general, the failure to obtain films before and after a suitable period following treatment was due to economic factors. Neither the patient nor the clinic had funds to pay for this examination. We have restricted our study therefore, to those patients from whom we have sufficient follow-up radiographic examinations to warrant some conclusions, with the distinct understanding that this does not represent a true cross-section of the whole group which has been under observation. Of this group of twenty-four, there have been three cases which have definitely not been influenced by the treatment from either the clinical or the radiographic standpoint. There have been six cases which have had definite clinical improvement, but there is no radiographic evidence of definite change in the bony structures around the joint to support this improvement. This makes a total of nine cases, or approxi-

mately thirty-eight per cent failures, or sixty-two per cent showing definite radiographic and clinical evidence of improvement, in these twenty-four cases.

It might be argued that these cases would have improved this much any way over a period of from one to three years, but this argument may be dismissed by the fact that these cases had all been under various other kinds of treatment suggested by the various clinicians for periods varying from one to seven years, with continued progression of the disease. A good many cases had either been partially or totally incapacitated at the onset of treatment, with a history of repeated subacute exacerbation of symptoms frequently accompanied by spontaneous fever and swelling and pain in the joints. All of the patients were studied thoroughly in the hospital before fever treatment. All of them have had various foci of infection removed. No attempt was made to regulate the diet, the patient having been told to keep on a good general diet with, perhaps, the only change being the addition of one quart of milk a day. In a few of the earlier cases, cod liver oil and liver were prescribed to take care of the anemia, but this was found to be unnecessary, and was discontinued in the later cases since the anemia seemed to improve spontaneously a short time after the joint symptoms became quiescent. Each patient gained from ten to twenty pounds in weight and improved in his general physical condition.

The method of treatment, after the patient had had a complete physical examination, electrocardiogram, and chest film, was to give a short artificial fever at 40.5°C maintained for a period of four hours. The patient was placed in a cabinet with the radiation from five

Aided by a grant from the Rockefeller Foundation for Medical Research

From the Division of Radiology, Department of Medicine of the University of Rochester, School of Medicine and Dentistry, of the Strong Memorial Hospital

try which might precipitate what he called a dramatic recovery. The fever therapy was outlined to him and we administered it over a period of twenty-one days for the reason that he seemed to be unusually suggestible to chemical measures. After discontinuing the fever series he insisted that he was greatly improved, but after several weeks he returned to his former complaints of mental and physical fatigability, irritability, sullenness and depression. His real problem was one of guilt in connection with his marital affairs, but he proved to be too surly and stubborn to be cooperative in the smallest degree with his physician. He therefore drifted along.

A woman, aged forty, was given this fever treatment for the uncommon condition of abdominal migraine. This condition was a conversion expression of hysteria in her case. Although her state was discovered to be a question of personality background and the involvement in a love disappointment, she insisted on being treated on what she called a strictly medical basis—meaning, of course, medication and physical manipulation. She cleverly perceived at once that the object of the injection was to divert her attention from her abdominal organs, and insisted that we were on the wrong track. The sulphur was discontinued as useless. She ultimately recovered through a practical, sensible psychological management of her personality and emotional drives.

A young woman in an acute state of hysterical resistiveness and anger was given this treatment, but after two injections it was likewise discontinued for the reason that there was no favorable response. Her problem was also a love affair.

Another woman, aged forty-seven, had a character neurosis of many years' standing. Superimposed on this was a motivated depression, due to a hurt pride over her mismanagement of an estate. Because all psychiatric efforts had failed, she was given this treatment experimentally. She had feelings of depersonalization and no zest for life. Prior to her coming to Stony Lodge she had made suicidal attempts. After several injections the fever regime was discontinued because it became apparent that it could not possibly influence the deeper layers of her mind and therefore contribute anything representing constructive treatment. As soon as she suspected that an invasion was being attempted on her obsessive state, she sarcastically remarked that the doctors were too meddlesome, that she proposed to live out her life in her own way, and she continued to be on the constant lookout for an opportunity to destroy herself.

Manic-depressive Psychoses

Sulphur therapy was employed in case of two young women undergoing acute manic attacks. It was sought to reduce mental flight and motor excitement. But the fevers did not in any way seem to change the clinical picture, so that it was necessary to return to prolonged baths and other expedients. Likewise, two women with depressions of many months duration did not respond to this treatment. It was sought to lighten the load of their depression. No success was obtained from this procedure. One of these depressed patients inquired if persons felt better with fever, and the other argued that she would prefer prolonged sleep by drugs.

Alcoholism

Three men and two women under treatment for acute alcoholism were given sulphur injections, *first*, for the purpose of increasing their general metabolism, *second* to bring them into a manageable mood. They were psychopathic personalities with definite, outstanding problems involving morals. Although they submitted readily to treatment, it was difficult to conclude how much direct benefit they derived from it. They were under the impression that the fever and sweating process eliminated the alcohol quickly and thoroughly from their organs and tissues. There was no evidence of any permanent psychic effect and real benefit since every one insisted, in the usual egotistical manner, upon the shortest period of treatment possible, and as a matter of fact, subsequent reports showed that they had returned to their former drinking habits.

Conclusions

In the treatment of five alcoholic, three psychoneurotic, four manic-depressive, and eight schizophrenic patients with intramuscular injections of sulphur-in-oil, it was found that the induced fever proved a useful means of frequently thwarting episodes of catatonia in schizophrenic patients. No change was observed in the flight of ideas and motor excitement of manics, or in deep depressive attitudes, or in somatic conversion symptoms of hysterical subjects.

Experience with fever therapy at Stony Lodge coincides generally with that reported by W. Gerson in schizophrenia (*Arch. f. Psychiat.* 98 614, 1933).

of the bone and subsidence of symptoms. The third case has shown an increase in calcium content, but has had several mild exacerbations of symptoms, and has been considered a failure.

The fifth group in the subacute and chronic types has been characterized by destruction of the cartilage as the main abnormality, and early ankylosis as the characteristic complication. There is very little proliferation of the soft tissues around the joint. Most of the skeleton was involved to some extent. In neither of the two cases treated has there been any definite improvement, except for a gain in weight, nor was the process halted by the treatment.

In the sixth group there are two cases in which a mixture of subacute and chronic soft tissue proliferation and bone atrophy, with the bone spur formation characteristic of degenerative arthritis, has occurred. In one of these, the changes characteristic of soft tissue proliferative arthritis have improved radiographically in that there is an increase in the density of the bone trabeculae and a subsidence of the atrophy. The other case has improved in physical condition, but still has exacerbation of the symptoms even one year after the combination treatment. There was no change in the radiographic appearance of the spurs of the degenerative phenomena.

It is of interest to point out that two cases are not considered in this series because they are classified under the

group of degenerative (hypertrophic) arthritis, the main characteristic being the formation of bony spurs. Complete relief from symptoms was obtained, although there has been no change in the radiographic appearance of the joints.

Conclusion

In conclusion, the cases in the acute stage of the soft tissue proliferative type of infectious arthritis have not been benefited by the treatment to the point where they show clear-cut changes radiographically. The group in which the cartilage is affected and ankylosis has developed has likewise not been affected. These are all young individuals below the thirty year age level. The others show a very marked improvement and are in the thirty to fifty year age group.

The percentage of cases showing definite improvement by radiographic observation is sixty-two per cent of the twenty-four cases of infectious arthritis in which follow-up films are available. If it had been possible to obtain films in all cases treated, our figures might be far different than this percentage would indicate. However, this conclusion seems consistent with the clinical improvement noted in the other patients as well.

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Reference

1 Bishop, F. W., Lehman, E. and Warren, S. L.,
J.A.M.A. 104 910, 1935

CHEMISTS DEMAND NEW FOOD AND DRUG LAW

Restating its profound conviction that the present federal food and drugs act is too limited in its scope to afford the public necessary protection in the matter of foods, drugs and cosmetics, the American Pharmaceutical Association at its eighty-fourth annual convention, held at Dallas, Texas, urged the prompt enactment of legislation substantially the same as S 5 as it was passed by the Senate in 1934. The association further registered strong opposition to any provision in the proposed legislation which would lessen enforcement efficiency and stated that additional delay in enacting food and drug legislation should

be looked upon as a flagrant disregard of the public welfare.

State legislation to compel manufacturers to place definite information on the labels of their drug products showing the name and address of the source of production and state laws to restrict the distribution of drugs, medicines and medical supplies to registered pharmacists were also urged. The association plans to collect and coordinate factual information which will show the relationship between the quality and reliability of drugs and medicines and their sources of production and channels of distribution.

200 watt lamps directed at the trunk and limbs, the head remaining outside. This equipment has been described elsewhere in detail¹. At the end of treatment, there is usually complete relief of all joint symptoms, which lasts in all cases from twenty-four hours to a week. Following this, some of the symptoms may return, but, over the next five or six weeks, there is a steady gradual improvement in most of the cases. Those in whom this relief does not occur will be discussed later.

At various periods of months or a year or more after this treatment, exacerbations of mild character developed which were not severe enough to warrant giving the patient a second fever therapy. As a result, a hot bath routine was instituted, and, in the last two years, this has been advised for all patients who had had the fever treatment, and has been continued throughout the cold months of the year.

A consideration of the various types of this disease (infectious arthritis) and the regions involved is of some importance. Most of the patients studied had one or more joints of the extremities affected severely by the arthritic process. It is possible to divide up the groups into six major classifications, each quite distinct from the other. There are three patients with soft tissue proliferation involving the structures around the joint in the hands, wrists, feet, and ankles. All three patients are young women who have had the disease approximately one year before coming for treatment. There is very little atrophy or deformity, and no bone destruction. In one of these cases, there was absolutely no benefit derived from the treatment. In the other two, the immediate acute symptoms were arrested. These two patients have had a series of subacute exacerbations of swelling and pain since treatment, although they are in better physical condition and the exacerbations do not last very long. Radiographic examination of their joints does not show any definite diminution of the soft tissue proliferation and they are listed among the failures.

The second group is in the subacute or chronic stage, with frequent exacerbations of spontaneous fever, local symp-

toms of swelling, heat, and pain involving the joints of the extremities. The group may be roughly divided into two parts, the first one in which atrophy of joint structures and soft tissues is the predominant factor. The articulating surfaces are in part destroyed, with great thinning of the cartilage and bone atrophy. Of the ten in this group, nine showed very definite increase in the number and density of the trabeculations of the bony structures, and an increase in the sharpness of the bony structures beneath the cartilage, after treatment. In some instances, there has been further diminution of the thickness of the cartilage and an increase in deformity, although clinical and functional improvement was marked. The general atrophy is diminished. The cases in the second part are very much like those just described except that there is a great deal more actual destruction of the cartilage and joint surfaces, and some ragged bone proliferation at the joint margins not characteristic of the degenerative type. Two of these, after treatment, have shown recalcification of the bony surfaces beneath the cartilage, and the general increase in density and number of trabeculae of the bony structure around the joint. There has been no increase in deformity. The third case has shown some improvement in calcium content of the bony structure, but has been classified among the failures because of subsequent flare-up and the disappearance of the patient from follow-up during the last year.

Another division in this group may be considered in which the pathology in the joint has been aggravated by the development of a large pannus as shown in one case which shows the same radiographic evidence of improvement.

A fourth group of the subacute and chronic type consists of three patients wherein the spine has been practically the only part of the bony skeleton involved by the arthritic process. This has been characterized rather graphically by the generalized diminution in the calcium content of the vertebral bodies including the articulating facets, and a diminution in the number of trabeculae visible on the film. Two of these cases have shown increase in calcium content

plasia of the columnar epithelium of Lieberkühn's glands which are finally broken through to develop adenocarcinoma usually graded one plus or two

Rectal bleeding is noted in two-thirds of the cases, constipation in one-half of them, and occasionally extrusion at stool of a large tumor and those with a long pedicle. Too much emphasis cannot be placed upon the clinical experience that many a small but potentially dangerous tumor is symptomless.

Diagnosis is made by digital palpation and sigmoidoscopy, to be followed by a roentgen study of the colon to detect other or associated lesions at a higher level.

Treatment

A sessile tumor is destroyed by fulguration through a bakelite operating proctoscope. An accessible pedunculated growth may be ligated near the mucosa and ablated, if situated at a higher level, the pedicle is severed with the high-frequency electric snare passed through the tube.

Every tumor so removed should be submitted to a competent pathologist. If malignant changes are found, the site of removal should be implanted with gold seeds of radon. A follow-up examination should be made at intervals of six months for three years. In the few instances where two or more neoplasms are present in the same patient, each tumor is treated as outlined.

Multiple Neoplasms

Multiple polyposis and adenomatosis coli present a serious clinical problem. A simple but practical classification is (1) Adenomatosis coli, the congenital (adolescent) disseminated type, and (2) Pseudoadenomatosis, the acquired (adult) inflammatory multiple polyposis.

The so-called congenital or familial type is a grave but fortunately rare condition, only about 129 cases having been reported. The distal colon and the rectum are the commonest sites of these disseminated tumors, but higher segments or the entire large bowel may be involved.

Thorebeke,⁷ in a review of thirty-four cases, found the rectum involved in twenty-three, colon and rectum in five, the colon alone in six.

In Doering's compilation⁸ of fifty cases, children were affected more frequently than adults, and the ratio of males to females was about 2:1. The two earliest instances in my experience were boys, age five and seven years respectively.

The etiology is obscure. A traceable familial tendency has been noted in several cases. The theoretical basis of origin is a congenital tissue defect or a preternatural sensitivity of the mucosa whereby response to ordinary bacterial, chemical or traumatic stimuli is expressed in hypertrophy and hyperplasia.

The tumors at first are small and mostly sessile, but tend to become pedunculated as a result of growth and the traction of hyperperistalsis. Individual tumors vary from a millimeter to two centimeters in diameter. Trauma of the feces and infection may cause peripheral ulceration.

The process is slow but progressive over a period of two to five or more years. Hemorrhagic diarrhea may quickly deplete the patient, but the chief danger of neglect or inadequate treatment is the tendency of the adenomata to undergo malignant degeneration. Statistics of Doering, Soper, Tuttle, and others show an adenocarcinomatous change in from forty-three to fifty per cent of cases. Accumulating clinical experience indicates that, in their natural course, all cases of disseminated adenomatosis coli eventually undergo malignant degeneration, frequently multicentric.

By histologic study of removed specimens, the transition has been traced through the stages of gland-cell hyperplasia and hypertrophy of the adenoma to definite adenocarcinoma. The nature of the carcinogenic impulse is not definitely known, but its continued action finally results in the hypertrophied anaplastic gland epithelium, with deeply staining nuclei and diminished production of mucus, breaking through normal bounds and becoming a true adenocarcinoma, occasionally of grade three or four.

Fitzgibbon and Rankin,⁹ in a critical study of thirteen cases of localized or generalized polyposis of the colon and rectum, found twenty-four carcinomata in eleven or eighty-five per cent of these cases. These investigators presented convincing histologic proof that twenty-two (92%) of the twenty-four carcinomata were de-

ADENOMATA

Relation to Rectocolonic Carcinoma

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Professor Proctology New York Polyclinic Medical School and Hospital

Polyp refers to the form and not to the histologic structure of a neoplasm. This paper is limited to adenomas of the intestinal mucosa, excluding other rare benign polypoid tumors, such as lipomas, fibromas, myomas, and angiomas, which combined comprise only about one-tenth of all benign intestinal growths. Approximately seventy-five per cent of intestinal adenomata occur in the colon and rectum.

Lawrence,¹ in a series of 7,000 autopsies at the Cook County Hospital (1929-1935), found 166 cases of adenomatous polyps of the colon, in 102 of which the tumors were localized to a segment and in thirteen distributed throughout the colon and rectum. Six colonic polyps had undergone malignant change, an incidence of 3.6 per cent, and carcinomas were associated in nineteen cases (11.44%), making a total malignancy incidence of 15.6 per cent.

Rectal polyps were present in thirty cases, sixteen of these cases having polyps elsewhere, chiefly in the colon. Of the thirty rectal polyps, five (16.6%) were malignant, cancers were associated in three cases, making a total rectal malignancy of 26.6 per cent.

White males were most frequently affected and the average age was thirty-two to fifty-six years. Diverticula were present in twenty-two (13.2%) of the 166 cases and ulcerative colitis in only three instances.

Lawrence's findings show significantly that the number of polyps more closely approaches the number of malignancies in the sigmoid and rectum than elsewhere in the gastrointestinal tract.

Dukes found polyps associated with twenty-five (75%) of thirty-three consecutive cases of carcinoma of the sigmoid and rectum removed at operation.

Lockhart-Mummery² considers the tendency so marked for simple adenomata to become malignant that he "looks upon adenomata as merely a stage in the development of malignant disease."

Buie and Brust³ observed 143 cases of solitary adenoma of the pelvic colon and rectum in eighty-four males and fifty-nine females. Four-fifths of the patients were between thirty-five and sixty-five years of age. The situation of the tumor was rectum, 52.5 per cent, colon, 47.5 per cent.

A polyp was felt in only forty-two of these cases, sigmoidoscopy revealing the others. Roentgenograms showed other lesions in only two cases, both diverticula. In a five-year follow-up of fifty of fifty-six cases treated by fulguration or by surgical excision, there were no recurrences. Of the eighty-seven cases not treated, twenty-four were not traced, fifty-five were alive and well, four died of other diseases, and four developed carcinoma of the lower sigmoid or rectum.

The laboratory records of the N Y Polyclinic Hospital for the seven years (1929-1935) show seventy-one adenomatous polyps, twenty-one (42%) of which were malignant. During the same period there were 171 cases of carcinoma of the rectum and sigmoid, eight (4.7%) of which had associated adenomata.

Some thirty-five cases of polypoid tumors of the pelvic colon and rectum in children have occurred in my practice, none of which was malignant.

In a previous communication⁴ I reported seven cases of rectal adenomata in adults which had undergone malignant degeneration. Six additional cases now bring the number to thirteen.

The precise etiology of an adenoma is unknown. Histologic studies carry them through the stages of hypertrophy of the mucosa and pedicle formation, and hyper-

plasia of the columnar epithelium of Lieberkuhn's glands which are finally broken through to develop adenocarcinoma usually graded one plus or two

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Fig 1 Solitary polypoid adenoma of rectum—proctoscopic. Removable by electric snare passed through proctoscope.

rived from polyps. They feel that the evidence presented "argues persuasively for the extremely plausible contention that the histogenesis of carcinoma of the colon is mediated through precancerous polyp formation and not otherwise."

As malignant transition may occur in widely separated tumors, negative findings in two or more excised growths do not exclude the possibility of other neoplasms in the same patient being malignant.

Pseudopolyposis

Acquired or inflammatory type

Rokitansky, in 1839, and Woodward, in 1881, interpreted the polyps developing in the margin of ulcers as islets of mucosa isolated by the cicatricial tissue in the process of repair.

Disseminated tumefactions have thus been frequently observed, especially in the ulcers of dysentery and of chronic ulcerative colitis. The undermined mucosa at the margin of the ulcer appears as a polypoid tumefaction which contains inflammatory and granulation tissue. Nests of glands are caught in the inflammatory fibrous network and closure of the glandular orifices by the inflammatory process frequently results in retention cysts. The histologic feature that distinguishes these tumors, of apparently infectious origin, from ordinary adenomata is the marked increase of inflammatory and fibrous tis-

sue, with simple inflammatory ulceration at or near the base and scarring between the polyps.

The most serious complications of chronic ulcerative colitis may be acute or chronic. The acute are massive hemorrhage from an eroded blood vessel in the base of an ulcer, and perforation of an ulcer, resulting in an abscess or peritonitis. The slower chronic results are fibrosis of the bowel wall with stricture formation, and multiple polyposis. Polyposis is the commonest complication and the rectum is its usual site of origin.

Bargen and Comfort⁸ reported sixty-nine instances of polyposis, as a complication, in 693 cases of chronic ulcerative colitis. The ratio of multiple inflammatory polyp cases to adenomatosis coli was four to one. Malignant disease was proved in twenty-three of these cases: twenty were carcinoma, two lymphosarcoma, and one lymphatic leukemia. Eighteen of the patients were between twenty-one and forty-five years of age.

Symptoms suggestive of a malignant change are abrupt increase of colicky pain and bloody dejecta, rapid weight loss, and varying degrees of obstruction. An abdominal mass may be palpable. Proctoscopy frequently reveals the malignant lesion associated with polyps, and roentgenograms show filling defects in addition to the usual picture of chronic ulcerative colitis.

Personally I have observed five patients



Fig 2 Multiple sessile adenomata of rectum, sequel to chronic ulcerative colitis, destroyed by fulguration.

with polyposis of the colon, one of whom developed cancer

J T, male, age twenty-nine, had a history of dysentery of fourteen months' duration. Stools averaged fifteen daily and contained pus and blood. The patient was anemic, felt weak, and had lost twenty pounds in weight. Sigmoidoscopy disclosed multiple adenomata, varying in size from a pea to a hazelnut, and others beyond the reach of the tube. I established a colostomy in the transverse colon, as no tumors were palpable through the bowel wall above the sigmoid. Unfortunately, when the gut was opened on the fifth day it was found that the adenomata extended to the hepatic flexure and presumably to the cecum.

As a result of diversion of the fecal current and irrigations, many of the tumors distal to the stoma disappeared or regressed. The growths proximal to the stoma were influenced to a lesser degree, yet the patient regained his weight and strength and pursued his usual occupation for three years. Then intractable diarrhea occurred through the colostomy and in response to the patient's urgent request for radical relief, an ileostomy was established. Uncontrollable discharge



Fig 4 Low power enlargement of a polypoid growth from colon in Fig 3

through the ileostomy quickly sapped his vitality and he succumbed three weeks later.

The excised colon distal to the colostomy was contracted, its walls were thickened and leathery, and many small adenomata studded its mucosa. The proximal colon showed adenocarcinomatous degeneration of large areas, but many unchanged adenomata were still present.

Treatment

Irradiation is not effective. No case has been reported as cured by the x-ray or radium.

All accessible adenomata in the rectum and pelvic colon should be destroyed by fulguration or removed with the electric snare passed through the operating proctoscope.

Temporary colostomy was successful in a man, age forty-one, upon whom I operated in February 1930, for bleeding from adenomata localized to the pelvic colon and rectum. If a colostomy can be made in sound gut well above the adenomata, I feel that it is a worth-while and useful procedure. By it the adenomata are freed from the irritation of the intestinal contents, the benefits of local treatment are made available, fulguration and elec-



Fig 3 Section of colon showing multiple polyposis secondary to chronic ulcerative colitis, non-specific. (Male, age fifty-four)

tric snaring are facilitated and, if treatment proves successful, the stoma may be closed, as was done in the case above cited.

For tumors disseminated throughout the colon, nothing short of total colectomy is effective. If the rectum and lower pelvic colon are or can be cleared of the tumors, the indication is ileosigmoidostomy, to be followed by colectomy. Otherwise, a transverse ileostomy is established and later colectomy is performed in stages.

Summary and Conclusions

Sigmoidoscopy should be done in every patient having symptoms referable to the colon or rectum, as hemorrhoids, rectal bleeding, pain or discomfort, or sciatica, persistent diarrhea, progressive constipation, or a feeling of incomplete relief after evacuation.

Any growth, however small and innocent in appearance, should be destroyed by fulguration, or, if excised, submitted to a competent tumor pathologist. In my series of solitary adenomata, thirteen proved to be malignant.

Prompt removal of an adenoma is the only guarantee against its later change into adenocarcinoma.

A follow-up examination at intervals of

six months for three years should be made.

Multiple polyposis and adenomatosis coli are grave conditions requiring major surgery for relief.

Convincing proof is presented of malignant degeneration, frequently multicentric, in both groups of disseminated growths.

Significant facts are that adenomata develop particularly in the cancer age and that their number more closely approaches the number of cancers in the sigmoid and rectum than elsewhere in the gastrointestinal tract.

Doubtless carcinoma of the colon and rectum is frequently mediated through an adenoma but, as yet, we cannot affirm that all rectocolonic cancers originate from adenomata.

555 PARK AVE.

References

- 1 Lawrence, J. C. *Amer Jour Surg*, March 1936
- 2 Lockhart Mummery, J. P. *Diseases of the Colon and Rectum*, Wm Wood & Co., 1934
- 3 Bue, L. A. and Brust, J. C. M. *Trans Amer Proctologic Soc*, 1935
- 4 Yeomans, F. C. *J. A. M. A.* 89 852, 1927
- 5 Therebecke, W. *Deutsche Ztsch f Chir* Leipzig Vol 126 1914
- 6 Doernag, H. *Arch f klin Chir* Berlin, Vol 83 1907
- 7 Fitzgibbon, G. and Rankin, F. W. *Surg Gyn & Obs* June, 1931
- 8 Bارسen, J. A. and Comfort, M. W. *Ann In ternol Med* 4 122 1930

NEXT PUBLIC HEALTH CONVENTION TO MEET IN NEW YORK CITY

The American Public Health Association announces that its 66th Annual Meeting will be held in New York City, October 5-8.

A large Eastern membership will receive that information with satisfaction. Not since 1921 has the Association met in the world's greatest city.

The sixty-fifth Annual Meeting in New Orleans last October, attracted an attendance of 1650 health authorities representing forty-five states, Canada, Cuba, Mexico, and nine other foreign countries. The officers of the Association are reminding themselves of this registration in a state where the membership numbers less than 100 and asking themselves what the registration will be in New York City where the membership counts up to nearly 500 within the city limits alone. An overnight's

ride will enable more than one-half of the Association's 5,000 members to attend.

The National Organization for Public Health Nursing will meet with the American Public Health Association in 1937 for the first time. This large and important organization is expected to add another thousand to the registration lists.

The following related societies will meet with the Association as usual: The American Association of School Physicians, International Society of Medical Health Officers, Conference of State Sanitary Engineers, Conference of State Laboratory Directors, Association of Women in Public Health, Delta Omega.

Dr Reginald M. Atwater is the Executive Secretary of the Association, and the headquarters offices are at 50 West 50 Street, New York City.

TRAUMATIC SUBCUTANEOUS EMPHYSEMA OF THORACIC ORIGIN

JOSEPH B STENBUCK, M D, *New York City*

The term *mediastinal emphysema* is loosely applied to the condition in which air arises within the thorax and presents itself beneath the skin as a more or less diffuse crepitant swelling. It is frequently used synonymously for subcutaneous emphysema. *Mediastinal* is a misnomer in the vast majority of traumatic cases, since of the several sources of air, the mediastinum is one of the least frequent. In our experience mediastinal emphysema is, with few exceptions, secondary to a subcutaneous emphysema which is first produced superficially in the thoracic wall. This subcutaneous emphysema rising to the neck may then descend into the mediastinum if the pressure is sufficient. We have seen it occur, too, in cases of lacerated trachea in the neck in which the skin wounds were tightly packed and air was forced from the trachea downwards into the mediastinum. We have no experience with mediastinal emphysema which is said to occur when a bleb situated on the hilar surface of the lung bursts and allows air to issue directly into the mediastinum.

In the majority of traumatic cases subcutaneous or interstitial emphysema is a more appropriate name than mediastinal emphysema and the name may be modified according to the source of air.

1 *Needle puncture* Exploration of the chest with the aid of the aspirating syringe and the introduction of a needle to produce artificial pneumothorax are common medical procedures. It is not uncommon to find a small area of subcutaneous emphysema at the site of puncture. This may have arisen from the air introduced directly into the subcutaneous tissues from the syringe. If a pneumothorax were present, and the hole in the parietal pleura did not close immediately on withdrawal of the needle, air might be forced from the pleural cavity into the subcutaneous tissues during respiration and continue

until all the air constituting the pneumothorax were expelled. If, in addition, the lung were punctured by the needle and a continuous stream of air escaped from the alveoli into the pleural cavity, an unlimited amount of air might thus be forced into the subcutaneous tissues. This condition is extremely rare.

Subcutaneous emphysema may arise after needle puncture when gas producing organisms, withdrawn from areas of pleural or pulmonary suppuration, are deposited in the chest wall and produce gas. Crepitation may be felt, but there is usually also present an abscess or a phlegmon. The problem in these cases is not one of subcutaneous emphysema but of infection of the chest wall.

Not infrequently crepitation may be felt after a hyperdermoclysis of normal saline solution. It is possible that the pleura may have been punctured, but not likely. Air is usually introduced from the tubing, or, rarely, by infection with a gas producing organism in cases where sterility is not maintained.

2 *After thoracotomy for emphysema* we have occasionally seen subcutaneous emphysema extend in varying amounts from the region of the wound. This has occurred even when the wound has been kept open widely. However, it has never been of any clinical importance.

3 *Penetrating wounds of the chest* are frequently accompanied by subcutaneous emphysema. In a series of sixty-eight consecutive cases of penetrating wounds of the chest in a period of eleven months in which thoracotomy was performed, we found subcutaneous emphysema in forty per cent of the cases.¹ Only one case of stab wound of the chest showed subcutaneous emphysema without penetration. This was apparently due to the vigorous action of the chest muscles sucking air into tissue planes. Subcutaneous emphysema may be considered a cardinal

sign of penetration, therefore This penetration, however, need not extend beyond the parietal pleura, i.e lung parenchyma may be intact This type of subcutaneous emphysema has been extensive enough to require treatment at Harlem Hospital but once in the past six years It is represented in the following case

CASE 1 A B, age thirty-nine, was admitted to Harlem Hospital, July 1, 1930 He was seen about a half hour after having been

curred a prompt and rapid spread of subcutaneous emphysema starting from the region of the wound It spread to the head, neck, and arms, and downward over the trunk and upper portion of the thighs Within six hours the patient's eyes were tightly closed by crepitant swelling and he complained of such difficulty in swallowing even water, and of such a terrifying sense of suffocation, that operation for relief was imperative Under novocain anesthesia, July 3, a five inch horizontal incision was made over the third intercostal space. The exploratory incision was made below the

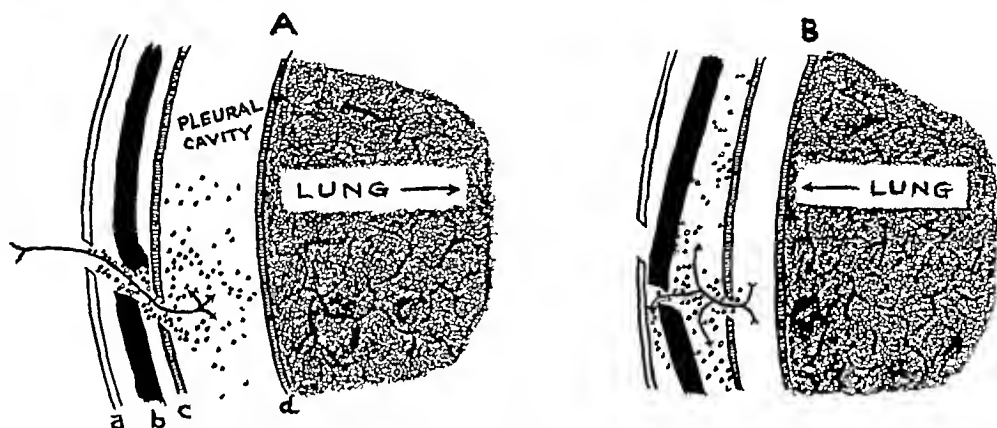


Fig 1 (A) The lung moves away from the chest wall causing air to be aspirated from outside the chest wall into the pleural cavity The air follows the tract caused by the instrument of penetration. *a*, represents the skin, *b*, the subcutaneous tissues, *c*, the parietal pleura, and *d*, the visceral pleura.

(B) The lung moves toward the chest wall increasing the pressure in the pleural cavity, thus forcing the air out of the pleural cavity A valve-like action of some of the subcutaneous tissues—particularly of fascia and muscle—prevents this air from reaching the atmospheric air It is therefore forced into the various subcutaneous planes This process may continue with each respiration until air is pumped throughout the body, giving rise to diffuse subcutaneous emphysema.

If, in addition to the laceration of the chest wall, the lung is lacerated there is an additional source of air which may be pumped into the subcutaneous tissues

stabbed by an assailant wielding a long butcher's knife There was a one and one-half inch wound of the right chest over the second intercostal space in the mid-clavicular line Subcutaneous emphysema was present over an area three inches in diameter The patient was quite dyspneic and complained of pain in his right chest An interesting phenomenon occurred at the site of the chest wound Here a globular, soft swelling in the subcutaneous tissues became larger with inspiration and smaller with expiration This was thought to be protruding lung caught in a lacerated intercostal space. This swelling remained *in situ* for about thirty hours when it disappeared When the swelling disappeared, there oc-

stab wound because the course of a stab wound in the chest is usually directed caudad. The intercostal muscles and the pleura were found severed for a distance of three and one-half inches (This disparity in the length of the skin wound and the pleural wound, may be explained by the fact that after being plunged into the chest, the knife was rocked back and forth with the tougher skin as a fulcrum) (Thus, great damage may be done beneath a small skin wound) There was considerable blood in the pleural cavity which obscured a view of the lung On coughing, however, the lung protruded for a distance of an inch and a half forming a globular mass which was probably the subcutaneous mass seen

SUBCUTANEOUS EMPHYSEMA

February 15, 1937]

on admission, rising and falling with respiration. The lung and pleural cavity were explored locally. The laceration of the intercostal muscles and parietal pleura was sutured and the pectoralis major muscle sutured over it forming an air tight closure. A superficial drain was inserted to allow for escape of serum from the subcutaneous tissues.

After operation, the subcutaneous emphysema which had been spreading rapidly, ceased to spread, and there was relief from dysphagia and dyspnea. The relief was so marked that the patient felt well enough to

CASE 2 J.L., age forty-two, was admitted to the Harlem Hospital, October 8, 1933, and discharged November 13 (Fig 3 and 4). He had been struck by an automobile and received the following injuries (a) fractured ribs, right, (b) fractured clavicle, right, (c) fractured tibia and fibula, right. Subcutaneous emphysema was present on admission, localized to the right axilla and pectoral regions, but spread until it involved the entire trunk, the head, both arms, and the upper portion of both thighs. The eyes were completely closed. The scrotum was ballooned to such proportions that the penis

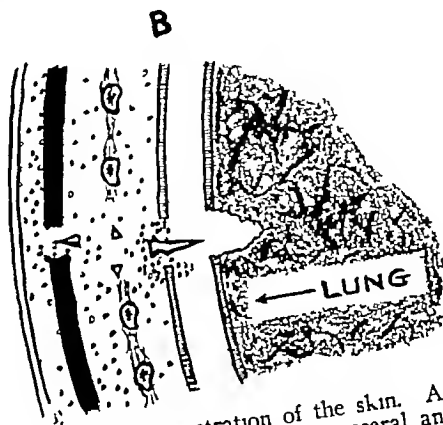
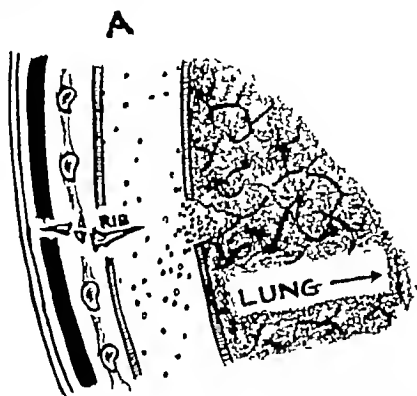


Fig 2 Subcutaneous emphysema which arises in cases without penetration of the skin. As a rule in traumatic cases this is due to a fractured rib which has penetrated the visceral and parietal pleuras, the lung, and subcutaneous tissues.

(A) The lung moves away from the chest wall. Air escapes from the alveoli of the lacerated lung into the pleural cavity. Note how the fragment of fractured rib has acted like a dagger, producing a "subcutaneous stab wound of the chest."

(B) The lung moves toward the chest wall thus increasing the pressure in the pleural cavity, and forcing the pleural air through the lacerated parietal pleura into the subcutaneous planes. As in Fig 1 this may continue until subcutaneous emphysema extends over the entire body.

leave the hospital July 7, although he was advised to stay for further observation. At present, six years after operation he is alive and well.

4 *Fractured ribs* are not infrequently accompanied by subcutaneous emphysema. It is advisable to consider fractured ribs not as broken bones but as dagger-like objects producing concealed or *subcutaneous stab wounds of the chest*. In this way attention will be focused on the important complications, such as hemothorax, pneumothorax, and subcutaneous emphysema. Fortunately, subcutaneous emphysema does not assume formidable proportions. In the past six years at Harlem Hospital there was a single exception

was lost to view in it. There was no difficulty in breathing or swallowing at the onset, but gradually dysphagia and dyspnea appeared and about thirty-six hours after admission became acute and required immediate treatment. It was our opinion that the air producing subcutaneous infiltration originated in the pleural cavity from lung lacerated by broken ribs and that if it were possible to divert the air outside the body, further infiltration of the tissues would be avoided. Accordingly through an intercostal stab wound, a rubber tube was placed into the pleural cavity. The other end of the tube was submerged and fixed just below water level in a bottle. Air escaped and bubbled through the water on each expiration and particularly on coughing. In this way, air which had been rhythmically pumped into the subcutaneous tissues was

sign of penetration, therefore. This penetration, however, need not extend beyond the parietal pleura, i. e. lung parenchyma may be intact. This type of subcutaneous emphysema has been extensive enough to require treatment at Harlem Hospital but once in the past six years. It is represented in the following case.

CASE 1 A B, age thirty-nine, was admitted to Harlem Hospital, July 1, 1930. He was seen about a half hour after having been

curled a prompt and rapid spread of subcutaneous emphysema starting from the region of the wound. It spread to the head, neck, and arms, and downward over the trunk and upper portion of the thighs. Within six hours the patient's eyes were tightly closed by crepitant swelling and he complained of such difficulty in swallowing even water, and of such a terrifying sense of suffocation, that operation for relief was imperative. Under novocain anesthesia, July 3, a five inch horizontal incision was made over the third intercostal space. The exploratory incision was made below the

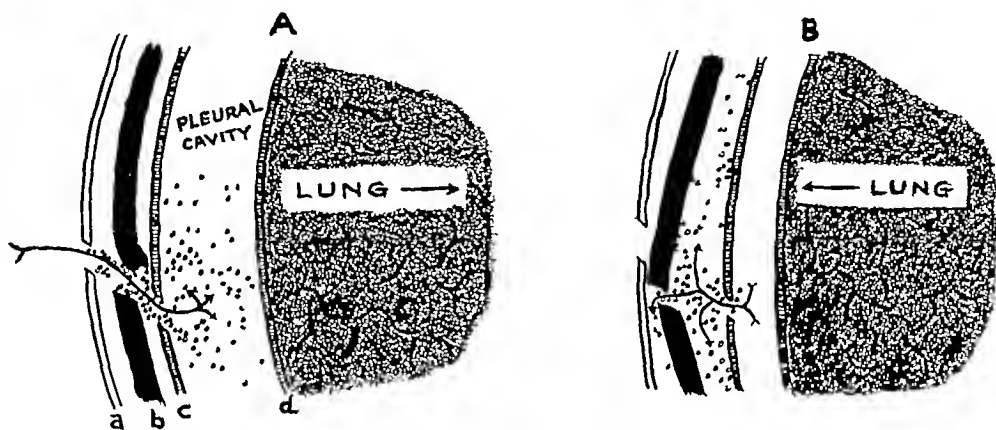


Fig 1 (A) The lung moves away from the chest wall causing air to be aspirated from outside the chest wall into the pleural cavity. The air follows the tract caused by the instrument of penetration. *a*, represents the skin, *b*, the subcutaneous tissues, *c*, the parietal pleura, and *d*, the visceral pleura.

(B) The lung moves toward the chest wall increasing the pressure in the pleural cavity, thus forcing the air out of the pleural cavity. A valve-like action of some of the subcutaneous tissues—particularly of fascia and muscle—prevents this air from reaching the atmospheric air. It is therefore forced into the various subcutaneous planes. This process may continue with each respiration until air is pumped throughout the body, giving rise to diffuse subcutaneous emphysema.

If, in addition to the laceration of the chest wall, the lung is lacerated there is an additional source of air which may be pumped into the subcutaneous tissues.

stabbed by an assailant wielding a long butcher's knife. There was a one and one-half inch wound of the right chest over the second intercostal space in the mid-clavicular line. Subcutaneous emphysema was present over an area three inches in diameter. The patient was quite dyspneic and complained of pain in his right chest. An interesting phenomenon occurred at the site of the chest wound. Here a globular, soft swelling in the subcutaneous tissues became larger with inspiration and smaller with expiration. This was thought to be protruding lung caught in a lacerated intercostal space. This swelling remained *in situ* for about thirty hours when it disappeared.

When the swelling disappeared, there oc-

curred a prompt and rapid spread of subcutaneous emphysema which obscured a view of the lung. On coughing, however, the lung protruded for a distance of an inch and a half forming a globular mass which was probably the subcutaneous mass seen

on admission, rising and falling with respiration. The lung and pleural cavity were explored locally. The laceration of the intercostal muscles and parietal pleura was sutured and the pectoralis major muscle sutured over it forming an air tight closure. A superficial drain was inserted to allow for escape of serum from the subcutaneous tissues.

After operation, the subcutaneous emphysema which had been spreading rapidly, ceased to spread, and there was relief from dysphagia and dyspnea. The relief was so marked that the patient felt well enough to

CASE 2 J L, age forty-two, was admitted to the Harlem Hospital, October 8, 1933, and discharged November 13 (Fig 3 and 4). He had been struck by an automobile and received the following injuries (a) fractured ribs, right, (b) fractured clavicle, right, (c) fractured tibia and fibula, right. Subcutaneous emphysema was present on admission, localized to the right axilla and pectoral regions, but spread until it involved the entire trunk, the head, both arms, and the upper portion of both thighs. The eyes were completely closed. The scrotum was ballooned to such proportions that the penis

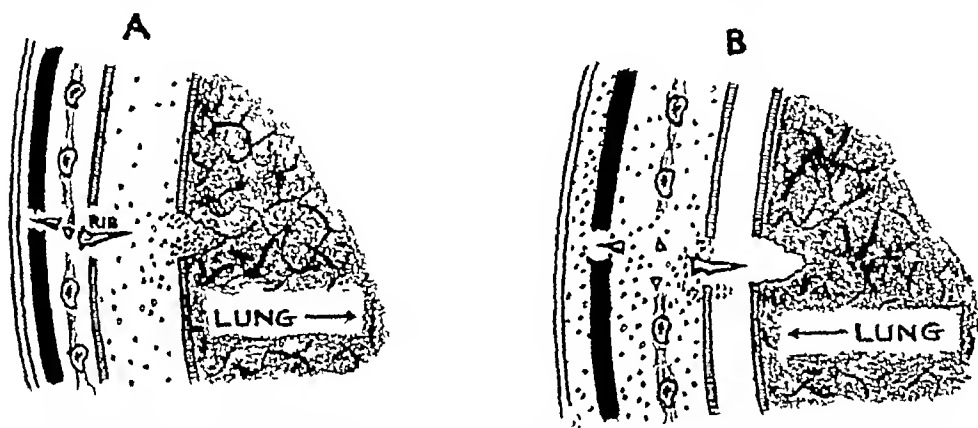


Fig 2 Subcutaneous emphysema which arises in cases without penetration of the skin. As a rule in traumatic cases this is due to a fractured rib which has penetrated the visceral and parietal pleuras, the lung, and subcutaneous tissues.

(A) The lung moves away from the chest wall. Air escapes from the alveoli of the lacerated lung into the pleural cavity. Note how the fragment of fractured rib has acted like a dagger, producing a "subcutaneous stab wound of the chest."

(B) The lung moves toward the chest wall thus increasing the pressure in the pleural cavity, and forcing the pleural air through the lacerated parietal pleura into the subcutaneous planes. As in Fig 1 this may continue until subcutaneous emphysema extends over the entire body.

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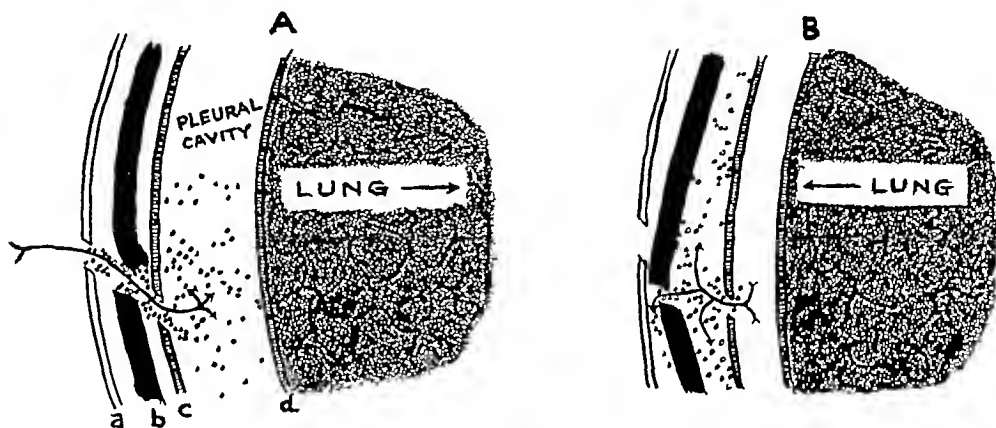


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a period of six years, only two patients required active treatment. Their histories have been recorded above

The treatment most commonly described for extensive cases of subcutaneous emphysema in which there is difficulty in swallowing or interference with respiration has been that of multiple incisions. These incisions usually including one in the episternal notch, serve to allow air to escape from the subcutaneous tissues (particularly from the mediastinum) and to relieve the dyspnea and dysphagia. In the light of the mechanisms of subcutaneous emphysema it seems more logical to attack the problem at its source rather than to temporize with multiple incisions. The bicycle-pump action of the lung must be stopped. This may be accomplished in several principal ways. *First*, by induction of an artificial pneumothorax which compresses the lung and puts an end to its pumping. This method we mention purely as a theoretical consideration. We have not used it. *Second*, when the site of lacerated parietal pleura is known, by suturing or otherwise stoppering the hole in the parietal pleura. *Third*, by leading off the air directly from the pleural cavity, so that it may not be forced into the subcutaneous tissues. This was the method used in our second case described above. It is particularly applicable to cases of fractured rib where, with intact skin, the exact point of lacerated parietal pleura cannot be determined, or where there are multiple fractured ribs and corresponding multiple lacerations of the pleura. It may be accomplished by introducing a rubber tube at least one c.c. in diameter through an intercostal stab wound and leading the

other end of the tube under water. If a smaller tube, a needle or a cannula is used, the caliber may not be big enough to lead off the air which is being violently pumped out of the pleural cavity in large quantities.

If the site of injury cannot be determined in a case in which the patient is first seen with an extensive subcutaneous emphysema on both sides of the chest, a careful history must be obtained to determine upon which side the crepitation began. That is the side which should be attacked. It must be borne in mind that subcutaneous emphysema may begin on both sides simultaneously. In that case we should not hesitate to treat both sides. We have not had an opportunity to treat both pleural cavities simultaneously in a case of subcutaneous emphysema but have successfully done so in cases of bilateral tense pneumothorax in which the principal of air drainage is the same.

Summary

Diffuse subcutaneous emphysema arising in the chest in *traumatic cases* usually arises superficially in the chest wall and not in the mediastinum. The commonest causes in a traumatic service are penetrating wounds of the chest and fractured ribs causing laceration of the lung, without or with laceration of the chest wall. The simplest and most effective treatment consists in draining the pleural cavity of the air which might otherwise be pumped into the subcutaneous tissues, or repairing the laceration if the exact place is known.

1185 PARK AVE.

Reference

- 1 *Annals of Surgery*, 97 258, 1933

WOMEN ORGANIZE FOR CANCER CAMPAIGN

Representatives from seven Eastern states have organized the Women's Field Army, which is being sponsored by the American Society for the Control of Cancer in a campaign of education addressed to the public. "Commanders" from Maine, New Hampshire, Delaware, New York, Pennsylvania, Rhode Island, and West Virginia heard addresses by Mrs. Grace Morrison

Poole, national adviser to the movement, and Clarence C. Little, Sc.D., director of the American Society for the Control of Cancer. The drive will be continued till March 27, the last week being devoted to enlistment of women as volunteers. After that time the army will go on a permanent basis and will conduct an educational campaign the year round.



Fig 3 Just after insertion of the tube for drainage of air from pleural cavity (Case 2) Subcutaneous emphysema was at its height and is extensive in head, trunk and scrotum.

diverted harmlessly into the water bottle. Soon the patient felt relieved of dyspnea, subcutaneous emphysema ceased to spread and then began to disappear very slowly (On the day of discharge it was still slightly present in the scrotum). There were no further excursions of air from the pleural cavity two days after the tube was inserted. This was taken as a sign that either the lung had become adherent to the parietal pleura or that the lacerated visceral pleura had healed and then the tube was removed. Convalescence was only slightly disturbed by the fractured clavicle and ankle. A figure of eight bandage was placed around the shoulders and a circular plaster-of-Paris cast was applied to the leg. The clavicle showed some overriding but healed with excellent functional result. The fractured ankle was in excellent anatomical position and was maintained so. The functional result was perfect.

Primary mediastinal emphysema was seen only twice in our experience, both times in cases of crushing injuries of the entire chest which were severe enough to cause death rapidly.

Mechanism of Subcutaneous Emphysema

Subcutaneous emphysema in traumatic cases may occur (1) with laceration of the chest wall, and (2) with the skin intact

1 With laceration of chest wall

(A) *Without laceration of the lung* The wound may involve all the tissues down to and including the parietal pleura. The arrangement of the muscles, skin, fascia, and parietal pleura may be valve-like, so that air sucked into the pleural cavity from the outside may be forced out of the pleural cavity into the subcutaneous layers of tissue. Muscle may form the valve which prevents egress of air.

(B) *With laceration of lung* Air may also be sucked into the pleural cavity from outside the chest wall. Most frequently little air comes in this manner but rather the air comes from the alveoli or smaller bronchi of the lacerated lung. In this type of case, as in all other types, the diffusion of the air into the subcutaneous tissues depends upon the bicycle-pump activity of the lung.

2 Without laceration of the skin

In this type of case the air must uniformly come from lacerated lung. In most cases the lung will be lacerated by spicules of fractured rib.

Treatment of Subcutaneous Emphysema

Subcutaneous emphysema requires no treatment unless it produces embarrassment of swallowing or breathing. For the case without symptoms, treatment is not only superfluous but may invite infection unnecessarily. In several hundred cases of subcutaneous emphysema observed in



Fig 4 Intercostal drainage tube has been removed after disappearance of the subcutaneous emphysema. (Case 2)

anus is ultimately reached. The course pursued by the infection varies, but usually the tracts pass through the substance of the external sphincter muscle or, in less favorable cases, deep to that structure. With involvement of the sphincters, a painful reflex spasm occurs and this spasm prevents return flow of the pus into the anus. Consequently increasing pressure forces the pus out into the soft perianal tissue and frequently into the ischiorectal fossa. There the real abscess forms. It may form out in the buttocks, the perineum or higher in the pelvis. However, the mode of origin is the same.

The physician usually does not see the patient until after the abscess has developed and frequently not until after rupture has occurred. When the abscess ruptures a fistula exists. If the physician incises and drains the abscess externally, it is a fistula that he has created. This fact should be remembered. In other words, with the appearance of the secondary opening, the fistula is complete. The location of this secondary opening or its manner of development affects neither the diagnosis nor the need for future fistulectomy.

It was once thought that all anal fistulas were caused by tuberculosis invasion of the tissue, few now harbor this notion. One is probably justified in dogmatically stating that, unless tuberculosis exists elsewhere in the body, the abscess or fistula is not of tuberculous origin.

Treatment

As has been suggested, the physician usually first sees the patient after the abscess has developed and frequently after it has ruptured. If induration without fluctuation exists, hot packs should be instituted in an effort to make the abscess "point." Sedatives and hypnotics should not be withheld. If high fever and signs of sepsis are present it occasionally is difficult to decide whether to operate at once or to attempt further localization. No set rule can be established, but in general it is wise to bring the abscess to a head.

Once incision is decided upon a large opening should be created to produce quick and lasting drainage. Exploring the cavity with the finger should be done

gently if at all. No packing is needed. A simple rubber tissue drain may be inserted, hot packs continued, and nothing else done. Roughness in handling or packing may well break down the pyogenic wall and result seriously. The discharge will be profuse for the first few days and then the cavity will begin to shrink and eventually a narrow fibrous tract will remain. Fistulectomy itself is best postponed until true chronicity is evident.

Preparation of patients for rectal operations has probably been too strenuous in the past. No breakfast, cleansing enemas of warm saline, and preliminary narcotics are our only preoperative orders. All rectal surgery on the Proctologic service of the Syracuse University Hospital is performed under transsacral block anesthesia. It offers the advantages of complete relaxation of the anus, absolute safety to the patient, and freedom from distortion of the operative area due to infiltration. We have used this anesthesia in approximately 250 individuals during the sixteen months, from May 1935 to September 1936, with no failures and no untoward results. The technic has been previously described by Lundy who is enthusiastic about its advantages. We also believe that rectal operations are best performed with the patient in the prone position over a "broken table" with the pelvis raised and the head and shoulders lowered. This position gives excellent exposure and allows the surgical assistant to be of real value.

With anesthesia complete, the surgeon first gently dilates the anus and then looks for the primary opening of the fistula. If one notes the position of the secondary or external opening it is possible to judge where in the anal wall the primary opening will be. We have rarely seen described in text books the sensation imparted to the examining finger by a fibrous fistula tract. A cordlike tract can usually be palpated and by following the cord with the finger one can easily determine which direction it pursues into the anal canal. By spreading the anus with a suitable retractor and using a good light a definite sinus can usually be detected. It need not be a large opening. Sometimes a tuft of granulation or a drop of pus will designate the location of the

ANAL ABSCESS AND ANAL FISTULA

Etiology and Treatment

JOHN C M BBUST, M D , *Syracuse*

From Division of Proctology, Syracuse University Hospital

Surgery for the relief of fistula-in-ano dates back into antiquity. Together with trephining we have records of perhaps the earliest operations performed on suffering human beings. History also records that Louis XIV of France was operated upon for fistula and that the surgical fee was the equivalent of \$30,000, apparently proctologists of this twentieth century have fallen upon lean times indeed. Lockhart-Mummery ventures the opinion that more surgical "reputations have been damaged by the unsuccessful treatment of anal fistula than by excision of the rectum or gastroenterostomy."

The lower rectum and anus are the site of many pathologic conditions which, despite their frequency of occurrence are still poorly understood. Anal abscess and its successor, anal fistula, due largely to misconceptions as to their origin, mode of development and treatment, rank high among causes of human suffering.

The term "fistula-in-ano" usually implies a draining sinus on the external skin surface near the anus and another opening inside the anal canal. These have usually been designated as internal and external openings. Buie has long urged that this nomenclature be discarded and that the terms *primary* and *secondary* openings be used. Although the primary opening is always internal, the secondary opening need not be external. Following the initial internal infection, the pus may burrow outside in the usual manner, but occasionally it ruptures back into the rectum or into the bladder or vagina. Such an opening is not external, but it is secondary.

Etiology

An understanding of the etiology necessitates a knowledge of the regional

anatomy. About one to two centimeters inside the anal margin is an anatomic landmark, the dentate or pectinate line. It marks the junction of skin and rectal mucosa. It is irregularly serrated due to the inverted crypts and interposing papillae. These crypts, named by Morgagni, act as potential reservoirs of infection and from these points of infection arise the abscesses and subsequent fistulas. The importance of remembering the crypts as the site of origin cannot be overemphasized. Frequently the physician merely notes the presence of an external sinus. Or, perhaps, if he examines inside he tends to look too high in the rectum for the original opening. One need not look high up. The opening will be found, in practically all instances, at the level of the dentate line in one of the crypts. Failure to find this primary opening usually results in failure to cure the fistula.

Many of the standard surgical textbooks teach that the cause of an anal fistula is an abscess in the ischiorectal fossa. In reality, the abscess is a late stage in the development of the fistula. Again we must look for an offending crypt. Anything that may produce a break in the delicate tissues surrounding these crypts may result in an infection of a crypt and from this in turn the process develops. The infected crypt becomes edematous and the associated papilla becomes inflamed.

This first stage is rarely seen by the physician because the symptoms are not sufficiently severe to alarm the patient. A vague twinge or aching may be experienced, but usually little else. However, as the edema of the crypt increases, the process of burrowing must of necessity start. It is fluid under pressure and naturally the soft tissue adjacent to the

*Read before the Sixth District Branch of the Medical Society of the State of New York,
Ithaca, September 17, 1936*

EXTENSIVE PLEXIFORM NEUROMA OF NECK

HERBERT WILLY MEYER, M D, *New York City*

Having had the occasion of seeing a child five years of age, who was kindly referred to me by Dr Spencer Strauss of New York City, with an extensive nevus of the neck and with a large tumor beneath this nevus, the occasion gave us an opportunity to look into the interesting subject of melanomas. This child was born with the pigmented nevus which was located in an area supplied by the second cervical dermatome and the tumor as well as the nevus extended over areas supplied by this second dermatome. The mother first noted the growth under the nevus when the child was two years old and was told that the swelling was a gland. Over the past two and one-half years the growth enlarged slowly, and the mother was advised by various clinics to leave it alone. In the last six months the growth had extended into the ear, onto the cheek, onto the chin, and down onto the chest. One could feel underneath the skin wormlike nodules scattered over the entire left half of the neck, in the ear, cheek, chin, across the midline, and down on to the chest (Fig 1).

In order to arrive at a definite diagnosis a biopsy was first done in October 1935 at the Lenox Hill Hospital where the child was admitted to the Surgical Service of Dr Carl Eggers. The report from the Pathological Department of the portion of the tumor removed showed that it was a typical plexiform neuroma with marked degeneration in the nerve tissue elements. A microphotograph (Fig 2) is hereby appended to show the different types of cells. Three weeks after the first biopsy operation a radical extirpation of the tumor was done. Avertin anesthesia supplemented by inhalation was used. A long incision was made from just below the ear, along the sternocleidomastoid muscle, and down onto the chest. A transverse incision from the midline backward onto the trapezius border was placed at the level of the thyroid cartilage and crossed the

previous incision. The four skin flaps were then carefully dissected backward, opening up a large area, and exposing the tumor over its entire extent. The skin flaps were dissected well up onto the chin, into the lower lip, and high up on to the cheek. A second incision was made overlying the tumor in the ear lobe and the tumor dissected free from its adherence to the skin of the ear and underlying cartilage. A portion of the cartilage itself in the ear was removed. This ear portion was then dropped under the skin into the neck wound. The tumor was found to be densely adherent to the skin itself from which it had to be separated by sharp dissection, showing that the tumor was adherent to the skin which was the site of the nevus. After dissecting the tumor from the cheek and lip down below the lower border of the mandible and from the midline backward it was found that it could easily be separated from the carotid sheath. From here it



Fig 1 Diffuse tumor of left side of neck, ear, and cheek with overlying pigmented nevus

Read before the New York Surgical Society, April 22, 1936

opening It may, however, be scarred over and apparently obliterated But it is always present, and can nearly always be easily found A flexible silver wire probe passed into the diseased crypt will usually enter the opening and the incision should begin from this point It is rarely necessary to begin cutting down from the secondary opening The use of staining solutions or bismuth paste seems unnecessary Such solutions may fail to enter all of the tracts and frequently fail to enter the rectum due to scarring Consequently depending upon them as the guide is dangerous and may result in an incomplete excision The appearance of an incised fistula tract is quite characteristic and no dye is needed The incision once started should be advanced outwardly along the tract in a methodical, cautious fashion All tissue external to the tract should be incised including, if necessary, any or all of the fibers of the external sphincter The tract and all subsidiary tracts should be opened throughout their entire length and all overhanging edges widely cut away One may "freshen" the base of the tract by rubbing with dry gauze This promotes subsequent granulation and aids in seeking side channels In general, any attempt at closure of the wound is unwise since to do so promotes infection and invariably tends to form pockets What is desired is a flat, shallow, accessible wound that can be easily inspected and treated postoperatively

Postoperative Care

Unless a surgeon is willing to personally institute daily postoperative care he should expect only indifferent results At the conclusion of the operation strips of bandage liberally soaked in liquid vaseline may be placed in the wound between the skin edges These should be *entirely* removed at the end of forty-eight hours and from then on no actual packing is required or even desirable Each day the wound edges may be gently separated and a moist cotton swab passed through the entire depth of the wound from the dentate line outwardly Hot wet packs should be applied for the relief of pain and to prevent excessive edema We begin the use of these packs as the anesthetic diminishes in intensity and apply

them continuously for at least the first ten postoperative hours Each day they are used for shorter periods of time By their conscientious use, much pain is avoided and the need for narcotics is lessened

The patient should be instructed in the methods of cleansing the wound after each bowel movement and such a regime of anal hygiene should be followed until healing is complete

It should be emphasized that no packing is required, after forty-eight hours Long fibred cotton may be loosely tucked into the wound and changed as the discharges saturate it Packing and repacking deep in the wound between the cut edges of the sphincter muscle will do much to promote ultimate sphincter incontinence which is naturally the dread of all surgeons

It has been customary from time immemorial for the surgeon to "bind up" the bowels for at least five days and then to administer a drastic purgative Such a procedure seems unreasonable We find that a gentle laxative given on the third evening, followed if necessary by a small enema the fourth morning usually produces a satisfactory and comparatively painless evacuation In fact we do all that is consistent to produce a natural and fairly bulky stool beginning no later than the fourth postoperative day Such a procedure does much to keep the wound dry and free from liquid feces A liberal diet instituted the day after operation will, as a rule, make cathartics or repeated enemas unnecessary

Comment

One point in this brief presentation should be emphasized It may be truthfully stated that once an abscess has formed it is almost always followed by a fistula The very nature and origin of the abscess makes the so-called blind external fistula an impossibility The physician after incising the abscess and thus giving relief should, by all means explain to the patient that an operation for fistula will ultimately be necessary Incising the abscess merely unlocks the tunnel and completes the last stage in the formation of an anal fistula This fact is not sufficiently appreciated by physicians in general

laboratory of a plexiform neuroma and having clinically seen that it apparently arose from the second cervical nerve, mushroomed out and was adherent to the skin which was the site of a nevus, made us look into the question of etiology. In looking through the literature we came across the well-known and excellent article¹ of "Melanoma Studies" as published by Dr. George F. Laidlaw, Department of Surgery, College of Physicians and Surgeons, Columbia University. In this article Dr. Laidlaw and his coworkers brought up the question of the dopa reaction in general pathology.

Bruno Bloch, the distinguished dermatologist of Zurich, noticed the dopa reaction in 1917. It is specific for two kinds of cells, melanoblasts (a term which includes all melanine producing cells as distinguished from nerve phagocytes) and for myelogenous leukocytes (cells which have no known connection with melanine production).

Both of these cells contain coferment, an oxidase, which converts dopa to melanine. This newly-formed melanine colors the cell black and the blackening of the reacting cell is the dopa reaction. Dopa is Bloch's abbreviation of 2, 4, Dioxypyphenylalanin.

The summary of Laidlaw's work shows

1 Bloch's dopa doctrine is introduced as the best working hypothesis of melanine production in the human skin.

2 The dopa reaction is anticipated in the study of pigmented moles, melanomas, and the movement of melanine.

3 In the identification of melanoblasts with the dopa reaction, only positive cells are significant.

4 The appearance of dopa positive dendritic cells in the nonpigmented acanthoses remains unexplained.

5 In the controversies which have arisen over the dopa reaction, Bloch's histological findings are corroborated.

In Laidlaw's articles a simple technic for the dopa reaction is defined.

He further goes into the theory of pigmented moles and their relation to the evolution of hair follicles.

Photomicrographs of silver stained sections are presented to show that pig-

mented moles are rich in nerve fibers and tactile cells. End bulbs of nerve fibers make contact with the nerve cells exactly as they do with tactile cells of the epidermis and of the hair follicles.

In its elevation, pigmentation, nerves, and the groups of tactile cells in the corium the pigmented mole bears a striking resemblance to the tactile spots of the reptiles and amphibia.

In the course of evolution the reptilian tactile spots are replaced by mammalian hair follicles. The pigmented hairy mole seems to be a link or transition from the pigmented tactile organs of the mammalian type. In its hair follicles it is mammalian. In its pigmentation and in its groups of innervated tactile cells in the corium it follows the amphibio-reptilian pattern.

The clinical observation of this patient, showing the neuroma arising from the second cervical dermatone and attached densely to the pigmented nevus of the skin over the distribution of the second dermatone with the excessive growth of hair on the surface of this pigmented nevus, made an exceedingly interesting observation when correlated to the article as written by Dr. Laidlaw which explains so well the findings in this specific case.

It is unfortunate clinically that we did not have a specimen of the overlying skin and tumor which could have been stained for the dopa reaction. It would be interesting and of great value in the future to follow out the studies of Dr. Laidlaw with the dopa reaction in similar cases. We would urgently advise all surgeons interested in melanomas to refer to the original articles of Dr. Laidlaw so that we could all be prepared to follow out these studies in our clinical everyday experiences.

This case is published in the hope that it may be of interest to some surgeons and that it may stimulate the further study of the interesting laboratory findings as published by Dr. Laidlaw.

170 E. 78 St.

References

- 1 Laidlaw, George F. *Amer Jour of Path*, Vol 8 No 5, 1932
- 2 *Idem Ibid* Vol 9 No 6 1933



Fig 2 (Photomicrograph) Plexiform neuroma with degenerated nerve fibers

the supraclavicular fossa and after dissecting the tumor from above down and from below up and from behind forward, it was found that by drawing the sternocleidomastoid muscle forward and exposing the cervical plexus that the tumor itself was densely and firmly adherent to the sheath of the second cervical nerve. The tumor passed upward from here into the jugular fossa and apparently had grown into the jugular foramen from



Fig 4 Healed wound following radical excision



Fig 3 Specimen removed at time of radical excision. Right upper corner, extension into ear, left lower corner, extension onto chest, right lower corner extension towards trapezius

passed along the anterior border of the sternocleidomastoid and was dissected free from the sternocleidomastoid until the posterior border was reached. At this point it dipped down into the posterior cervical triangle. The tumor was then dissected upward from the chest into

which a major portion of the tumor could be teased out, thereby removing this large, plexiform, wormlike mass in one piece. It was freed from the second cervical nerve by sharp dissection (Fig 3). The wound was closed by replacing the skin flaps and suturing with interrupted black silk. Drainage was placed in the posterior cervical triangle and the child made an uneventful recovery (Fig 4).

It is now ten months since the operation and the nevus, of course, is still present, but there is no clinical evidence of a recurrence of the tumor. The prognosis in these cases is, of course, extremely bad and it is to be feared that in the life of this child there will be a recurrence of this tumor.

Once more receiving a report from the

tacks of pain in the right lower quadrant of her abdomen. We saw her a year after the operations still complaining of the same symptoms. Questioning elicited the fact that in addition to constipation, epigastric distress after meals, and poor appetite, she dreaded the cold, was always tired, and suffered from irregular, scant, and painful periods. Basal metabolic rate was minus twenty-nine. Endocrine therapy directed towards thyroid and ovaries relieved her completely.

The second type of abdominal pain resembles that of peptic ulcer or cholecystitis. It is illustrated by one of our patients, a girl of seventeen. She was admitted to the hospital with the diagnosis of subacute cholecystitis but confirmatory evidence was lacking and she was discharged without operation. When seen in the follow-up some months later she gave a history suggestive of attacks of acute appendicitis. This time her appendix was removed which proved to be relatively normal. Her symptoms persisted and then it was noted that she had many of the stigmata of hypothyroidism. Her basal metabolic rate proved to be minus seventeen whereupon she was given endocrine therapy which resulted in complete relief of her symptoms.

Physical examination of these patients is disappointing. In the abdomen, little can be noted except indefinite tenderness and a few gas bubbles. Suspicion is excited, however, by the dry skin, cold extremities, subnormal temperature, and relatively low blood pressure, any or all of which are present. It is also important to note that, contrary to the generally accepted ideas of hypothyroidism, the patient may be thin and restless rather than stout and phlegmatic, the pulse rate is apt to be elevated instead of slow, and the hair may be normal in amount and distribution.

The diagnosis is made in the laboratory by the finding of a low basal metabolic rate and a high blood cholesterol. The determination of the BMR is the test most commonly employed and the average is about minus fifteen. Hurxthal⁶ considers the blood cholesterol a more accurate gauge and in hypothyroidism it will usually be found above 170 mgms per one hundred c.c. of blood.

In the thyroid type of case just dis-

cussed the symptoms are usually chronic. The ovarian type of case, on the other hand, is apt to present subacute or acute symptoms frequently mistaken for appendicitis. The immediate cause of the condition is the rupture of a follicle or corpus luteum cyst with the release of varying amounts of blood into the peritoneal cavity. It was ably described by Novak⁶ in 1917 and has been discussed by many others. Nevertheless, the paper of Hoyt and Meigs⁷ in 1936, indicates that it still remains a cause of many mistaken diagnoses.

The pain is of relatively sudden onset and is situated in the lower abdomen on either or both sides. It is of various degrees of intensity and may be associated with nausea and vomiting. There may be a little fever and leukocytosis and on abdominal palpation tenderness and not infrequently rigidity and rebound tenderness are found.

In differentiating this from appendicitis, there are important considerations in both history and physical examination. A history can generally be obtained of various types of menstrual disturbances and of previous attacks of pain coming at a point midway between the periods or about the time of the period. The association of painful, swollen breasts with menstruation is common. The abdominal pain does not shift from epigastrium to right lower quadrant as in typical appendicitis but begins and remains in the lower abdomen. It tends to diminish and disappear in twelve hours or less. On abdominal examination the point of maximum tenderness is away from McBurney's point and may be on the other side. On vaginal or rectal examination, the tenderness is not necessarily on the right but may be generalized or on the left. Usually no mass can be detected at the time of the acute attack, but if the patient has been examined prior to the attack, a cystic ovary can often be found which reverts to normal size with the onset of the symptoms.

Often the differential diagnosis is extremely difficult. The severe cases with general signs of hemorrhage are almost exactly similar to a ruptured ectopic pregnancy but as both demand prompt surgery this is of academic interest. When appendicitis cannot be definitely excluded

ENDOCRINE DISTURBANCES SIMULATING SURGICAL CONDITIONS OF THE ABDOMEN

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From the surgical service of the Fifth Avenue Hospital, Frederic W. Bancroft, M.D., Director

In a recent study of so-called chronic appendicitis¹ in which special attention was paid to the unsatisfactory results, it was found that an appreciable number of the failures was due to the faulty diagnosis of certain endocrine disorders. This stimulated a further study of cases in a general surgical service, the thyroid and gynecological clinics and private practice, and twenty-five cases were found showing abdominal symptoms, apparently of a surgical nature but actually due to faulty endocrine secretion. They represent relatively common conditions which are but poorly recognized, although various investigators have discussed many of their phases.

The patients complain of abdominal symptoms which may be chronic, sub-acute or acute and are confused with surgical conditions, chiefly of the abdomen or pelvis. The glands of internal secretion involved are the thyroid and ovaries although future research may show that the pituitary as the activator of these glands is the basic cause of the trouble. Many women show symptoms referable to both thyroid and ovaries but, for the most part, the symptoms are dominated by one or the other and for purposes of description the cases will be divided into thyroid and ovarian types.

In the thyroid group, the trouble is due to an insufficient secretion. Brown² noted the tendency to constipation with hypothyroidism and subsequently Hinton^{3,4} reported a series of cases of hypothyroidism associated with symptoms of peptic ulcer. Our cases had examples of both types of digestive disturbances and, in addition, showed the general evidences of insufficient thyroid secretion. An understanding of these general symptoms is essential.

The usual concept of hypothyroidism is myxedema but this is an advanced stage

of the condition which is easily recognized. The cases under discussion seldom reach that stage but they do present characteristic symptoms.

Outstanding among these are an intolerance to cold, scanty perspiration, and lassitude. The patients dread cold weather and thoroughly enjoy the heat of summer. They feel tired all the time in spite of more than the average amount of sleep and possibly because of this they are irritable and lack emotional control. They have poor appetites and frequently complain of constipation and "indigestion" but do not lose weight although they are not necessarily overweight. Sexually they have diminished libido and potentia and the women are prone to miscarry. Nearly all the women show some menstrual disturbances, mainly in the form of painful, delayed, and scanty periods and the onset of menstrual life is usually later than the average. The particular type of menstrual disorder is not of diagnostic importance.

The history of these general symptoms must be obtained by questioning as they are of such long-standing that the patients do not think to volunteer the information. The thing that brings them to the physician is abdominal pain and this of two types or a combination of both.

The first and most usual is an inconstant dull pain in the lower abdomen, more often on the right than on the left. Its duration varies from a few hours to several days and many women complain of it prior to their periods. With it is often associated some form of gastric disturbance and constipation, thus making a symptom complex interpreted as chronic appendicitis.

A typical example is the case of a woman of twenty-six who had undergone appendectomy and dilation of her right ureter in another hospital for at-

References

- 1 Lester, C W *Am Jour Surg* 25 335, 1934
- 2 Brown, T R *J.A.M.A.*, 97 511, 1931
- 3 Hinton, J W *Ibid* 98 1702 1932
- 4 Idem *Am Jour Surg*, 28 96, 1935
- 5 Hurvital, L M *Arch Int Med* 53 763, 1934
- 6 Novak, E *Bull J.H.H.*, 28 349, 1917
- 7 Hoyt, W F and Meigs, J V *Surg Gyn & Obs*, 62 114, 1936
- 8 Kimball, O P *Kentucky M J*, 31 488 1933
- 9 Geist, S H *Am Jour Obs & Gyn*, 26 588 1933
- 10 Hamblin, E. C and Ross, R A *Ibid*, 31 14, 1936
- 11 Smith, P E. Personal communication

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., DR.PH., *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Twitch

A man of thirty-five has a twitch of the right eye for the last three years. It involves his entire right cheek and never leaves him except when he is distracted or when his mind is strongly concentrated upon anything that interests him intensely. Of course, it is completely absent during sleep. There is nothing extraordinary in that. It is the usual, well-known unilateral facial tic.

He had it for a short while in childhood, at about the age of eleven, apparently acquired by imitating his school teacher. But his mother, a devout Catholic, has caused it "to disappear by novenas."

Why has it returned after such a long time? And what is its etiology?

The physical, including the neurological, examination is entirely negative. There is no mental disturbance whatsoever. But the condition itself is of mental origin. It is a reaction to something powerful that has had a deep effect upon this man's life, his feelings, his pride—something that has deranged his plans and has bewildered him.

He used to have frequent quarrels with his wife, but he loved her much and he

thought that she loved him. He believed she was fully adjusted to these scenes and she could stand them without much ado. He never expected any further consequences from these fights, which he, much older than his spouse, usually started and finished.

One day, however, as a culmination of one very unfriendly remark made by him, she took the child and left the house never to come back. That happened three years ago.

The shock for him was great. He took to drink and had brawls with other men. And he noticed his present defect a few days after his wife's departure.

It is very difficult to cure this kind of tic. But to succeed even partly it is necessary to convince the patient of its connection with the sudden and tragic event that has changed his life so much.

That has been done in this case, so far with partial success only. That is, the twitch disappears now for long intervals, but it reappears at the first excitement of any sort.

If there be a moral to this story, the reader must find it himself or herself.

Marriages Are Made in Heaven

It is difficult to say how useful psychoanalysis can be therapeutically, but diagnostically it is certainly a great guide in many cases, if used rationally. Of course, no one need be addicted to it. But stripped of its Talmudic, casuistic, and hairsplitting arguing as done by its overzealous adepts, it is a true philosophy and a necessary chapter in our medical science.

A young physician sent me a case with a story of which he "could make no head nor tail," he wrote.

The woman in question was married several years and had no children. Neither she nor her husband used contraceptives, but

she was never pregnant. They both claimed to be in love with each other. Both desired children, and his genitals and sperm were apparently normal. Her uterus, however, was hypoplastic and less than puerile in development, a condition which none of them knew about and which I was careful not to speak during those critical days.

Lately she had attacks of anxiety during which she cried bitterly or shrieked wildly and was entirely unable to do her housework. The scared husband did not understand her.

In a conversation without any witnesses I attempted to find the reason for her condition, but it was impossible. She seemed

we prefer to operate. This happened in three instances without untoward results and a fourth case escaped operation only because we had previously removed a gangrenous appendix. Indeed, she described her symptoms as another attack of appendicitis.

The pathologic physiology of these endocrine disturbances is still in the realm of theory for the most part. Since the thyroid acts as a general metabolic stimulant affecting glands, muscles, and nerves it seems evident that in hypothyroid states the glands will function sluggishly, the muscles lose their tone, and the nerves become less sensitive to impulses. Applied to the gastrointestinal tract, this condition can be expected to impair digestion and retard peristalsis which in itself will cause some symptoms while others of a reflex nature can arise from distention of cecum and ascending colon.

In the ovarian group, the pain which comes midway between the periods, the mid-menstrual pain or *Mittelschmerz*, can be readily explained by bleeding incident to the rupture of the follicle. When the pain comes later, the rupture of a hemorrhagic corpus luteum cyst is the cause and the severity of the symptoms is proportionate to the amount of bleeding. Novak⁶ has shown that bleeding at the time of follicle rupture is abnormal. Likewise, the failure of the follicle to rupture at the proper time and the development of a hemorrhagic corpus luteum cyst are abnormal. The orderly sequence of follicle development, maturation of ovum and formation of corpus luteum is dependent on hormonal stimulation, probably by the pituitary. Hence, any abnormality of this sequence can be assumed to result from some sort of endocrine imbalance. The exact nature of this abnormality must await future investigations.

While these considerations of endocrine pathology are largely theoretical, they do provide a basis for treatment. Obviously, hypothyroidism requires thyroid medication either in the form of desiccated thyroid or thyroxin. In our experience, the basal metabolic rate is not an exact criterion of the dose required, an observation also made by Kimball.⁸ We prefer to start with a half a grain of desiccated thyroid, U.S.P., twice a day and then to vary the dose to meet the changes in the basal

metabolic rate and the patient's symptoms. We also find that some patients respond better to desiccated thyroid than to thyroxin although why this should be is not clear.

The treatment of the acute condition in the ovarian group is entirely symptomatic although the patients should be under careful observation until the question of some acute surgical condition has been settled. The value of endocrine therapy is in the prevention of future attacks and for this purpose, pregnancy urine extract is employed.

This was first considered an ovarian stimulant of pituitary origin, but later investigation has shown that it comes from the placenta and is probably an ovarian depressant.^{9,10} In either case the action is on the ovaries and it is not a substitution product as is estrin, the use of which is contraindicated.

We administer pregnancy urine extract subcutaneously in five doses of 100 rat units each. The first is given a week after the start of the period, the second, third, and fourth are given on successive days beginning six days later, and the fifth at the end of the third week of the cycle. Thus, the bulk of the medication is given at about the time of ovulation when the pathological condition is assumed to originate. This schedule is adhered to except in those cases with uterine bleeding at two week intervals. It is then impossible to tell which is the menstrual period and the patient is treated by 100 rat units injections on alternate days until the true cycle is determined. Pregnancy urine extract may also be used to supplement thyroid therapy in the hypothyroid cases with marked menstrual disturbances.

Pregnancy urine therapy is not without danger as there have been cases of ovarian degeneration following its excessive use.¹¹ It is wise to discontinue medication after two courses and wait several months before recommencing. Then it is often unnecessary.

Results in the treatment of these endocrine disorders is apt to be slow, especially in the thyroid cases. The prolonged disturbance fosters a neurosis which may need attention after the physical condition has been eliminated. General hygienic measures should also be employed.

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EDITORIALS

Indigent and "Medically Indigent"

While the agitation for compulsory health insurance goes on, those who direct the hue and cry maintain strict silence on the subject of medical care for the indigent. In their determination to establish lay political control over healing, regardless of the consequences to the public health and purse, they willfully neglect any phase of medical care which does not contribute to their ends.

There are three broad aspects to the proper distribution of medical service—care of the self-supporting, care of the needy, and care of that in-between group which is able to provide for ordinary daily needs but cannot maintain its independence in the face of serious or protracted illness. The first class presents no problem to the community. Any attempted solution which fails to take both the other groups into consideration is dangerously incomplete. There can be no real satisfaction of community needs by a system that fails to provide for both the indigent and the "medically indigent."

As in the case of unemployment relief, remedial measures are obstructed by a lack of accurate information as to the number of those requiring aid. Guesses as to the extent of unemployment varied by millions throughout the depression, and to this day no one knows what the

situation really was or is. So there has been no serious attempt to classify the needy and the low income groups requiring assistance in various medical emergencies.

For a number of years the profession has advocated a central bureau for the registration of all requiring free or under-rate medical care. This would not only prevent imposture and wasteful reduplications of service but would furnish an accurate index to the extent of the problem actually confronting the community.

Report of the American Foundation Studies in Government

There will soon be issued the report of the American Foundation Studies in Government. This Foundation made a nation-wide survey, consulting competent medical opinion throughout the country, on the conditions of medical practice—what changes the current era warrants adopting for the delivery of medical care to the American people, and what form such changes, if any, should take.

There was no preconceived idea behind this study. There was an honest effort to find out what the American doctor thought about the questions. Naturally, since it was generally known, the official

to withhold something I made no more headway with her husband alone. Each one of them claimed to be sexually satisfied and happy, but characteristically enough, they both dismissed the subject and tried to change it quickly.

There seemed to be nothing of importance in this patient's childhood and past history that would help to solve the puzzle.

Our sessions yielded no result until one day I questioned her about day-dreaming. Yes, she had semi-visions—imagnations, she called them—and they always turned around the same subject. Very reluctantly and after painful detective work on my side she admitted that she thought herself run over by a heavy truck in the middle of the street. Her legs were torn off, she was in bed, in a hospital, and her husband either could not come to see her or, when allowed to do so, he could greet her from a distance only.

I told her the meaning of this dream and asked her why she did not care to be with her husband. Then only she confessed that he never gratified her, that his emissions were premature and that the intercourse

made her nervous and left her in great despair. But she had never spoken to him about it. In fact, when he, rarely, asked her, she answered that it was all right.

He avowed that since he had given up the hope of having a child his wife did not appeal to him and he had intercourse with her in a perfunctory way, "only for her sake," he said. With another woman whom he saw occasionally he was sexually perfect.

The situation was dangerous for our patient. The revelation about the significance of her day-dreams had no effect whatever, except that she modified them somewhat. None of the psychotherapeutic methods employed in such situations were efficacious. The advice that she go and spend some time with her parents, who were living in a distant town, was eagerly accepted by both. After the time was up they refrained from coming together and now, after five years, they have not met again. The patient is cured, as I learn through correspondence.

Marriages are made in heaven. Is that the reason why they are often failures?

611 W 158 St

DOCTORS TO HELP PHARMACISTS CLEAN HOUSE

More than 1,000 members of the Consolidated Brooklyn Retail Pharmacists, Inc., closed their stores for four hours recently, picketed seventy-five stores whose proprietors refused to close and met at the Hotel Bossert to take action against unfair trade practices.

They were informed by their president, George Gottesman, that close to seventy per cent of their number were actually insolvent and were staying in business only on the sufferance of drug manufacturers and wholesalers.

They voted to undertake a campaign of education through advertising to acquaint the public with conditions in the drug trade and to expose as far as possible such evils as price-cutting, the use of proprietary and patent medicines in the place of prescriptions and the manner in which competitors were underselling them.

After hearing a physician, Dr. Charles Solomon, chairman of the subcommittee on drugs of the Kings County Medical Society, assert that doctors lacked education in prescribing for patients, they voted to assign a detail of members to visit the physicians of the borough and instruct them.

"Unless you help the medical profession to clear up the patent and proprietary medi-

cine racket you will not receive the aid of the doctors," Dr. Solomon said.

"Doctors today are taught therapeutics daily by men detailed from the drug manufacturers. Young doctors are afraid to write prescriptions because they have never learned how in the medical schools. Doctors are inscribing names, not drugs, on their prescriptions, and it is up to you to help us."

"I want it understood," Dr. Solomon is quoted as saying, "that the pharmacist must stop practicing medicine by his counter prescriptions of patent medicines and the like if he is to receive any respect or support from the medical society. The physician, usually, is not a pharmacist. I dare say that the pharmacist is never a physician, and is no more qualified to prescribe for patients than any other merchant who carries patent medicines on his shelves."

George Gottesman, president of the Consolidated Brooklyn Retail Pharmacists, has given notice that the members of his association have just begun to fight.

He reported that a committee of five pharmacists from Brooklyn will meet a like committee from the Kings County Medical Society to effect co-operation in the drive against proprietary medicines.

recession of the rivers The necessary serums and vaccines are being administered wholesale by groups of physicians who are working without regard for self The sickness of individuals is also being cared for with an efficiency which is little short of remarkable considering the physical condition of the affected areas

The doctors are now as always, contributing their share in work and money and placing their services at the disposal of our people regardless of the sacrifice entailed They never forget their trust!

Telling the World

The past two months have witnessed a nation-wide resurgence of opposition to compulsory sickness insurance As state and county medical societies all over the country have redoubled their efforts to call public attention to the higher costs and lower quality of political medicine, groups that had almost resigned themselves to the socialization of practice have again taken up arms If the laity can be made to realize the destructive influence of this system on health and living standards, the profession will no longer have to bear the brunt of battle alone

The advocates of obligatory sickness insurance do not distinguish themselves by consistency They promise the doctor great benefits under their plan and then attribute his opposition to selfishness There are no such contradictions in the profession's rejection of health insurance It cannot accept facile promises of improved prophylaxis and more efficient distribution of therapeutic services when the morbidity and mortality rates for insured and uninsured countries prove the superiority of private practice It cannot accredit claims of lower costs when administrative expenses consume fifteen cents out of every insurance dollar even in England, where the Civil Service is conceded to be more honest and efficient than our political bureaucracy It cannot believe that physicians would be better off under health insurance when the corres-

pondence columns of British medical journals contain abundant evidences of dissatisfaction Increasing numbers of English panel practitioners are resenting the low pay and long hours, the degrading condition brought about by excessive demands for medication from patients and strict regulation of prescribing by the government, the lack of opportunity for painstaking examination and resultant serious errors in diagnosis

Whenever and wherever medical care is subjected to lay control, however well-intentioned, the quality falls off and costs mount Individual health services belong in the hands of the private practitioner, who has heretofore dispensed them humanely and efficiently, to the glory of medicine and the betterment of the public health Mass health questions demanding governmental intervention should be under the jurisdiction of a medical department exclusively concerned with medical problems The state could make no greater mistake than to relegate the health of its citizens to a subordinate position in a general welfare department administered and controlled by laymen

\$165,000 Grant for More Health Studies

According to a news release from the Foundation on January 23, the Julius Rosenwald Fund has made a grant of \$165,000 over a period of five years to help finance a new Committee on Research in Medical Economics This committee has recently been incorporated in this State Its personnel consists of Michael M Davis as Chairman, Professor Robert E Chaddock, Columbia University, Henry S Dennison of Framingham, Mass, Professor Walton H Hamilton of the Federal Social Security Board, Elvin S Johnson, Director of the New School for Social Research, N Y, Editor Paul U Kellog of the *Survey Graphic*, N Y, Professor Harry A Millis, University of Chicago, Mr Fred M Stein, a banker of New York

attitude of organized medicine was not sought, but many prominent medical men connected officially with various units of organized medicine were individually consulted and gave aid and furnished their individual opinions which are incorporated in the report.

Our Committee on Trends, in a recent release through the Public Relations Bureau, is of the opinion that the forthcoming Report will tend to stress the divergence of opinion among medical men in regard to the topics under inquiry, and prophesies that this very divergence of opinion will be seized upon by the "socializers" in Washington to foist their pre-conceived schemes upon us. The warning of our Committee on Trends should put us all on guard against the utilization of this factor by outsiders. Of course, doctors being individualists, and each acting for himself, set about to answer the inquiry as he thought best, from his own angle of observations, and with no thought for concerted action. Hence, the usual compromises in details not having been made, it seemingly may uncover an apparently large diversity of opinion.

In view of the fact, however, that a great cross-section of the medical profession will have registered its own views and own ideas, would it not seem wise on the part of organized medicine to study the report with the particular end in view of evolving from it *common factors* which can be incorporated *now* into some practical suggestions to government agencies to take the burden of carrying the entire costs of medical care to the indigents from off the shoulders of the medical profession, and also of developing means to overcome the handicap imposed by financial barriers toward bringing adequate and high quality medical care to the underprivileged classes? Incidentally, if we can find common ground in all the communications from professional men, to meet hospital problems, to bring diagnostic aids to communities now unprovided with them, and to extend the reaches of preventive medicine, we desire to be the first to greet such practical

suggestions for making these measures effectively operative. No matter how much diversity of opinion there is additionally to be found in the report, the common ground should be the objective of our studious scrutiny.

The forthcoming report is the first survey made by an extra-medical body which has exclusively consulted medical opinion on the mooted questions at issue. As such, it is indeed welcome, and while we grant that to the casual observer the diversity of opinion may at first seem confusing, we feel that the more the report is studied, the more there will be found of common ground among the professional opinions expressed. For medical men have been trained in a tradition which values quality of service, over quantity and cheapness of service. They have always sought means to extend preventive medicine, and they now sense a trend of the times which makes most of us believe that the opportunity is open to the organized profession to make its own contribution toward the solution of these problems. Until now, it was the "socializers" and other outsiders who made the propositions which, when weighed in the balance, were found wanting. Our opportunity is now. Study the Report, it was written by your colleagues. Then let us act. Informed public opinion expects no less than that of us.

The Flood

The great catastrophe which has been visited upon the inhabitants of the Ohio Valley and which threatens those who live in the vicinity of the Mississippi is leaving in its wake a sorrowful spectacle of ruin and wreckage. The intense suffering, the loss of property and home are only equalled by the fear of disease.

All public health agencies are united in their efforts to avert the outbreak of epidemics which might result from the infected waters and unsanitary conditions that at present exist, and for which time will be required to correct following the

CURRENT COMMENT

Benzidrene

This drug is a synthetic one (beta-phenyl-isopropylamine), chemically like epinephrine and ephedrine. It was originally introduced for topical use in shrinking the nasal mucosa, but further experience has shown that its action is not limited to this alone. Experimental animals put into a narcotic sleep by barbitone were awakened following administration of benzidrene. When given to humans, it has a marked stimulating effect upon the cerebral function, inducing sleeplessness, exhilaration, and an increase in the intellect. Mental fatigue is replaced by clarity of thought and self-assuredness.^{1 2}

Roentgenologists have reported that benzidrene is distinctly useful for the relaxation of gastrointestinal spasm.³ Its effect upon the blood pressure has also been studied and it was found that a maximum rise is attained at the end of one to two hours with a gradual return to normal within eight hours following oral administration.⁴ But the full pharmacology of this drug remains to be determined. The desirable effects reported are balanced by untoward results such as marked polycythemia following prolonged use, an impairment of the appetite and symptoms of cardiovascular disturbances. Promising as are the beneficial effects obtained from the employment of benzidrene in internal therapy, its indiscriminate use is to be cautioned against at this time. More experimental and especially clinical data must be forthcoming before the limits of safety are fully comprehended.

CURRENT COMMENT

"IT IS NO SECRET THAT GRAFT, incompetence, bureaucracy, red tape and patronage have been realities in American Government. Unless these can be brought well under control they may devour more than does all

the waste of exploitation and abuse in the private industry, serious as that is. (We should recognize, however, that it is not only government which suffers from internal politics. Most of the great power combinations are less than twenty-five years old, yet I suspect that few of them are free from the problem of bureaucracy, nepotism, and patronage which tend to go with bigness, either public or private.)"—An excerpt from a news release by Arthur E. Morgan, Chairman of the Tennessee Valley Authority, in the *New York Times* of Sunday, January 17

"ADMIT THAT OUR SYSTEM of medical practice has its shortcomings, it is still the best ever devised. Admit that American medical education and practice were backward and benighted for the first century of our national existence. That was Osler's plaint when he first came to Philadelphia from McGill. Yet, in the past sixty years American medicine has developed an efficiency and excellence that now attracts students and medical men from the four corners of the earth. The Mecca is here, and the trek is on. And it all came about in a democracy where private practice prevailed and ambition spurred the physician to his best efforts."—From the *Milwaukee Medical Society Bulletin*

"SCIENCE ANNOUNCES THAT IT IS A STEP nearer solving the problem of how to pre-terminate the sex of offspring. This is one goal which we hope science will never reach. We can imagine few things more disastrous, in the long run, than to put into human hands the power to make every firstborn child a boy."—Just an opinion voiced by the editors of *Today*

Raymond Moley, in the same publication but in a more serious mood, states that "Granted that we cannot survive without more security and economic equality for the majority of our people, yet how much security and 'leveling up' can the nation afford to pay for? * * * The basic problem is clear-cut: we cannot have every form of security and standardization and every form of freedom, for every new item of security and 'leveling up' we take on, we shall have to give up a degree of freedom * * *"

CLAIMS LADY NANCY ASTOR, "In England three pounds out of every five pounds of an individual's income-tax goes to social security taxation"

¹ Primmetal and Bloomberg *J.A.M.A.* 105 2051 1935
² Peoples and Guttman *Lancet*, 1 1107 1936
³ Myerson and Ritvo *J.A.M.A.* 107 24, 1936
⁴ Myerson, Loman and Dameshek *Am J Med Sci* p 560, October 1936

There is also the inevitable Medical Advisory Board, to be enlarged as required¹ The following physicians are *now* members of this board Dr Samuel Bradbury of Philadelphia, Dr Alfred E Cohn of New York City, Dr Alice Hamilton of Washington, Dr Ludwig Hektoen of Chicago, Dr Franklin C McLean of Chicago

Most all of those on the active committee, particularly its chairman, Michael M Davis, and Mr Walton H Hamilton, are very strong proponents of compulsory health insurance, and during recent years have bent every effort and used every means available to them to foist this foreign scheme upon American medicine and upon the unwary laboring classes and the tax-paying public No valid arguments advanced by any source authoritative enough to have considered opinions has served to stop these men in their endeavors to reach their preconceived goal Of the medical group which makes up the medical advisory board, most of them are not engaged in the private practice of medicine They have little experience and small knowledge or sympathy with it It is not unreasonable to suppose that being unsympathetic to it, they would have little hesitancy in helping to destroy it

The creation of this new set-up seems to be the final gesture in the field of medical social endeavors of the Julius Rosenwald Fund The Fund states that since 1928 it "has been actively at work with the aim of reducing the costs of medical service"—(*It seems strangely unconcerned with the quality of the cheapened service it seeks to promote*),—"and of making them more accessible to people of small incomes" (*Totally unconcerned whether or not they reduce the American living standards thereby*) "Now the organized medical profession, hospitals and many industrial and governmental agencies are engaged in practical experiments in different parts of the country, organizing medical care to reduce costs or developing methods of getting these costs into the family budget Hence there is *now less need for the promotion of action*

than for the guidance of action through scientific and dispassionate studies" (Parentheses and italics ours)

For the cessation of propagandist activity and for its public announcement the medical profession is of course duly grateful to the Fund Perhaps, the Fund has learned the actual truth about compulsory health insurance We at least hope so We also wonder, as does the *New York Medical Week* what new achievements are to be expected from the new committee and its hand picked medical advisory board We are somewhat astonished to find Dr Alfred E Cohn of the Rockefeller Institute staff on this board—for heretofore no one connected with the staffs of the various Rockefeller Funds or Foundation has taken any active part, even indirectly toward influencing legislative enactments, and we should exceedingly regret noting a new trend in the working of this great and useful Foundation

We also are pondering how men who have actively agitated for legislative enactments in state and nation and backed bills introduced in legislatures to accomplish their set purposes in regard to foisting compulsory health insurance upon us,—how these men, at this stage, and in these times, can accept money grants to make a five year study of something upon which their minds are apparently made up, and upon which they seem in accord If the problem is still so vague to them that so much money, and at least five years time for study is necessary, how do they explain their enthusiastic public endorsements of the last few years Now these active propagandists for adoption of uncompleted and unfinished studies, want five more years for study, and they accept the neat little sum of \$165,000 to do it When this sum is exhausted, and if meanwhile their preconceived goal is still unattained, we doubt not, that more money and further committeeships will eventuate¹

"The world is grown so bad,
That wrens make prey where eagles dare
not perch"

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Inquiry On The "Safe Period"

To the Editor

In line with out interest in "medical aspects of human fertility," we are impressed by the extensive and increasing interest in and reliance upon the so-called "safe period" as a means of contraception. There is urgent need for determining, as accurately as possible, whether there exists, for the regularly menstruating woman, a predictable and reliable moiety of her cycle in which fertilization is impossible. The National Committee on Maternal Health is undertaking to collect pertinent data which, by reason of their source, will be of exceptional value.

We seek to enlist specially qualified married couples who will scrupulously keep and transmit to us—confidentially, of course—accurate and complete records of menstruation and coitus over a long period of time, several years if possible. We suggest, though not exclusively, couples of whom one or both are, say, physicians or graduate students or faculty members or research workers in biologic or other scientific departments, therefore competent to furnish trustworthy records and also scientifically interested in contributing to this investigation.

A couple such as we wish to enlist would prefer not to have a pregnancy develop during the next year or more, although if one did develop it would not be calamitous. Accordingly, the couple would observe the so-called "safe periods" as their sole means of avoiding conception. If that succeeds, and then the time comes when they desire

a child, they would reverse their practice, confining coitus to occasions outside the "safe period," or they would at least restrict intercourse to the moieties of the menstrual cycle when, theoretically, pregnancy is most likely to result, and then record how soon it does result. Needless to say, there must be no known or probable factor of involuntary sterility in either one of the couple.

The frankly experimental character of the coital practices on which these records are based, and the special qualifications of the recorders, will make these data uniquely valuable.

The committee is peculiarly fitted to collect these records. Its territory is large enough to encompass couples in numbers adequate for the investigation—couples who, by reason of their particular qualifications and their willingness to volunteer, must be few in any one community, no matter how large the latter may be.

On application, we shall distribute to individuals simple record forms and brief instructions easy to follow. We hope to hear from as many as possible who are reached, directly or indirectly, by this announcement. Please address National Committee on Maternal Health, Inc., New York Academy of Medicine Building, 2 East 103 Street, New York, N. Y.

RAYMOND SQUIER, M.D.

*Executive Secretary
National Committee on
Maternal Health Inc.*

January 25, 1937

TO STUDY AFRICAN LEPROSY

Dr Victor G. Heiser, author of "An American Doctor's Odyssey," president of the International Leprosy Association and a pioneer in the investigation of leprosy for more than thirty years, has sailed to study the disease in Central Africa, where it is believed to manifest itself in a form not

found elsewhere.

Dr Heiser said that the disease in the region he will visit was of the tuberculoid leprosy type and he was particularly eager to investigate its origin and transmission. The British Government has asked him to report to it on his findings.

"LET US BEWARE LEST IN our desire to be kind to the weaker brethren of today we are not more than unkind to all the brethren of tomorrow"—A warning from the pen of Lord Dawson, and transmitted to us by the London correspondent to the *JAMA* of January 23

"CONGRESS PROBABLY WILL enact a new Food and Drug Act though it will lack the teeth of last year's unsuccessful bill. One of the old disputes which was whether the Federal Trade Commission or the Food and Drug Administration shall control advertising, has been settled. The Drug Administration won out"—A forecast and a statement by the editors of *Today* in their issue of January 30

"FREE CARE TO THE INDIGENT is admittedly one of the foundation stones of education in medical-college hospitals and clinics. But we are inclined to doubt the opinion held in some quarters that full-fledged physicians are recompensed for their charity services merely by the added training they receive. It could be as apt to maintain that, for no reward other than the skill derived from their efforts, engineers should build bridges, lawyers, win suits, teachers, educate, or bankers, lend money"—Another angle on the question presented by William Alan Richardson, in *Medical Economics* for January 1937

"As ITS FINAL GESTURE in the field of

medical service, the Julius Rosenwald Fund has announced a grant of \$165,000 for another five year study of medical economics. The research Committee which will conduct the projected survey is headed by Michael M. Davis and includes such other 'impartial' investigators as Walton H. Hamilton and the editor of the *Survey Graphic*

"For a number of years past the men referred to have been outspoken advocates of compulsory health insurance. Now, it appears, they require another five years for further 'studies in the economic and social aspects of medical care.' Apparently the method is to arrive at conclusions first and then investigate—a procedure somewhat too reminiscent of 'Alice in Wonderland.' If these supposed experts consider five more years of research necessary, the time has certainly not yet arrived for legislative endorsement of obligatory pre-payment.

"The medical profession cannot help wondering what new achievements are to be expected from a program of this type. It is not very long since the Committee on Costs of Medical Care spent five years and over a million dollars on a similar study. Now another five year project is to be launched by the same sort of group. In law, if previous experience arouses a suspicion of prejudice, a 'change of venue' may be sought. In this case, a change of personnel is strongly indicated if unbiased conclusions are desired. No group can be designated a 'committee on research' that is as strongly dominated by a preconceived idea as this one"—From the *New York Medical Week* of January 30

POEM OF THE DAY

Observed by E. V. W. in the Baltimore Sun during meeting of the Southern Medical Association and reprinted in the *AMA Journal*

PATIENCE PATIENTS!
OR
THE DOCTOR LOOKS AT WEDNESDAY
THURSDAY AND FRIDAY

"Oh, Doctor, please come. I've a pain in my 'tum, and my throat feels a little bit rough."

"What? I'm off to Convention. Such trifles don't mention—your illness is not rare enough."

Unless you've thrombosis, a touch of sclerosis, a disease that, at least, is mysterious,

A call I've no time for, no reason nor rhyme for—don't 'phone till you find you're delirious

We've a lengthy discussion on 'Brain and Concussion' I'd really be quite out of humor

If called for arthritis, or conjunctivitis, or anything short of a tumor!"

In the Armory Hall (it's not open to all) there's a series of gruesome exhibits

But the layman turns green, and it's clear to be seen he soon loses his yearning to kibitz

So this week, if you please, do not yield to disease, to symptoms refrain from attention,

The Doctor can't come for a look at your 'tum—he's attending the blasted Convention!

AMY F GREIF

sisting of the President of the Society and four Presidents of District Branches, as provided in the By-Laws

Article VII

Meetings

There shall be an annual meeting of the Society and of the House of Delegates to be held at a time and place designated by the House of Delegates

Article VIII

Funds

Funds shall be raised by an annual per capita assessment on each component County Society at a uniform per capita rate throughout the State. Funds may also be raised in any other manner approved by the House of Delegates or by the Council of Trustees when the said House of Delegates shall not be in session.

The approval of the Council of Trustees shall be necessary for the expenditure of any funds of the Society

Article IX

Referendum

At any meeting of the House of Delegates a majority of the members present may order a referendum vote of the Society on any question consistent with the Constitution and By-Laws and in accordance with such regulations respecting the submission of the question as the House of Delegates may prescribe. The members shall vote thereon by mail. The polls shall be closed at the expiration of fifteen days after the mailing of the question, and if the members voting shall comprise a majority of all the active members of the Society, a majority of such vote shall determine the question and be binding on the Society and the House of Delegates. The Council of Trustees may, in a similar manner, order a referendum to the House of Delegates

Article X

District Branches

Sec 1 The membership of the Society shall be divided into eight District Branches, as follows

The First District Branch shall comprise the members of the Medical Societies of the Coun-

ties of New York, Bronx, Westchester, Rockland, Dutchess, Putnam, Orange, and Richmond

The Second District Branch shall comprise the members of the Medical Societies of the Counties of Kings, Queens, Nassau, and Suffolk.

The Third District Branch shall comprise the members of the Medical Societies of the Counties of Albany, Rensselaer, Schoharie, Greene, Columbia, Ulster, and Sullivan.

The Fourth District Branch shall comprise the members of Medical Societies of the Counties of St Lawrence, Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren, and Washington

The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Onondaga, Oneida, Herkimer, Oswego, Lewis, Madison, and Jefferson

The Sixth District Branch shall comprise the members of the Medical Societies of the Counties of Otsego, Delaware, Chenango, Cortland, Tompkins, Schuyler, Chemung, Tioga, and Broome.

The Seventh District Branch shall comprise the members of the Medical Societies of the Counties of Monroe, Wayne, Cayuga, Seneca, Yates, Ontario, Steuben, and Livingston

The Eighth District Branch shall comprise the members of the Medical Societies of the Counties of Erie, Niagara, Orleans, Genesee, Wyoming, Allegany, Cattaraugus, and Chautauqua

Sec. 2 Each District Branch may adopt a constitution and by-laws for its government and may amend the same, but before becoming effective they shall be approved by the Council of Trustees. They shall be consistent with the Constitution and By-Laws of this Society

Sec 3 Changes in the number or membership of these District Branches may be made by a two-thirds vote of the House of Delegates at any annual meeting

Article XI

County Societies

The terms County Medical Society or component County Medical Society shall include all County Medical Societies now in affiliation with this Society or which may hereafter be organized and chartered by the House of Delegates. There shall be but one County Medical Society in each County affiliated with this Society. If there should be an insufficient number of physicians in any of the Counties of this State to form themselves into a component County Medical

COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

The Committee on Revision of the Constitution and By-Laws herewith presents a first draft of its report. It is published to acquaint the members with the proposed changes, and to invite comment and constructive suggestions, all of which will be carefully considered. The Committee wishes to reiterate that this is not necessarily the form in which its final report will be submitted to the House of Delegates, and reserves the right to make minor alterations, or even changes in principle, if these are deemed expedient. Society Members are requested to address all communications to the Chairman of the Committee, O W H MITCHELL, College of Medicine, 307 So McBride St., Syracuse, N Y

Constitution

Article I

Name and Purposes

The name and title of the Society shall be the Medical Society of the State of New York. The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of New York, to extend medical knowledge and advance medical science, to elevate the standard of medical education, to secure the enactment and enforcement of just medical and public health laws, to promote friendly intercourse among physicians, to safeguard the professional and economic integrity of its members and to establish and maintain them in appropriate and equitable relationship with the public, with government and with all agencies working in the fields of health and welfare, and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State.

Article II

Membership

The membership in this Society shall be divided into three classes: (a) Active (b) Retired (c) Honorary.

Article III

House of Delegates

There shall be a House of Delegates which shall be the legislative body of the Society and shall be charged with the general management, superintendence, and control of the Society and its affairs and shall have such general powers as may necessarily be incident thereto, except as otherwise specifically provided by the Constitution and By-Laws. It shall pass upon the credentials and qualifications of delegates and shall

decide who are entitled to be members of the House of Delegates. It shall have authority and power to suspend or otherwise discipline its own members, District Branches, component County Medical Societies or any member of the Society charged with special duties for and under authority of the State Society. It shall provide for a division of the scientific work of the Society into appropriate sections, for the organization of the District Branches, for rules and regulations for its own government and for the administration of the affairs of the Society. When the House of Delegates is not in session, the Council of Trustees shall exercise all the rights and duties of the House of Delegates that are not inconsistent with the Constitution and By-Laws of the Society. (See By-Laws)

Article IV

Council of Trustees

There shall be a Council of Trustees composed of the President, the President-Elect, the immediate Past-President, the Treasurer, and fifteen other members elected by the House of Delegates.

Article V

Officers

The officers of the Society shall be a President, a President-Elect who shall serve as first Vice-President, a second Vice-President, a Treasurer, an Assistant Treasurer, a Speaker, and a Vice-Speaker of the House of Delegates. They shall take office at the termination of the annual meeting at which they were elected.

Article VI

Board of Censors

There shall be a Board of Censors con-

nently disabled may *ipso facto* have the privilege of applying for retired membership in the State Society. All such applications shall be signed by the President and the Secretary of the County Society of the applicant and then sent to the Secretary of this Society for presentation to the House of Delegates for approval. Active members desiring to become retired members shall apply for such membership to the component County Society in the County of the residence of the applicant. Such applications shall be governed by the Constitution and By-Laws of the Component County Society relative to active membership. Retired members shall not be subject to assessment, but shall be accorded all the rights and privileges of active membership except voting and holding office.

Sec. 7 The honorary members of the Society shall be all persons now on the roster as such and in addition such distinguished physicians residing outside of the State of New York as may hereafter be elected. All nominations for honorary membership must be endorsed by three members of the Society and forwarded to the Secretary for presentation to the House of Delegates, which by a two-thirds vote of the House of Delegates present and voting shall be declared elected honorary members of this Society. Honorary members shall be entitled only to the privilege of attending and addressing the meetings of the Society.

Chapter II

House of Delegates

Sec. 1 The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies, (b) Officers of the Society and other Members of the Council of Trustees, and (c) the President of the District Branches sitting as District Delegates. Past Presidents of the Society shall be life members of the House of Delegates with voice but without vote. Each component County Society shall be entitled to elect as many delegates as there shall be State Assembly Districts in such County at the time of the election, but each component County Medical Society shall be entitled to elect at least one delegate. A component Society representing by its name more than one County shall be entitled to as many delegates as there are

Assembly Districts in the Counties named in the title of such Society.

Sec. 2 A delegate to this Society shall not be considered in good standing or entitled to vote in the House of Delegates if the component County Medical Society by which he was elected is in default of the payment of any dues or assessments imposed by the House of Delegates, and said County Society has been duly notified of such default, or if such component County Medical Society shall at the time be under sentence of suspension imposed by the House of Delegates, or if such delegate is not in good standing in this Society, or in the component County Medical Society to which he belongs. The term of a delegate elected by a County Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election.

Sec. 3 The annual meeting of the House of Delegates shall be held on the day before the annual meeting of the Society. The sessions of the House of Delegates may be adjourned from time to time as may be necessary.

Sec. 4 A quorum shall consist of sixty duly elected or constituted members of the House of Delegates.

Sec. 5 The House of Delegates shall hear and finally determine all appeals taken from decisions of the Board of Censors.

Sec. 6 The House of Delegates shall provide for the issue of charters to County Societies in affiliation with this Society.

Sec. 7 The House of Delegates shall have authority to appoint special committees from among members of this Society.

Sec. 8 The following shall be the order of business at the sessions of the House of Delegates:

- 1 Calling the meeting to order
- 2 Report of Reference Committee on Credentials
- 3 Roll call by the Secretary
- 4 Reading the minutes of the previous meeting
- 5 Report of the President
- 6 Address by the President-Elect.
- 7 Report of the Board of Censors
- 8 Report of the Council of Trustees
- 9 Report of the Secretary
- 10 Report of the Treasurer
- 11 Reports of District Branches by District Delegates
- 12 Reports of Special Committees
- 13 Reports of Reference Committee

Society, such physicians may become members of the component County Medical Society of an adjoining County when eligible by the Constitution and By-Laws of such County Society

Article XII

Amendments

Amendments to this Constitution, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates Notice of the proposed amend-

ment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon, it shall be published at least once and at least one month before the annual meeting in the official publication of the Society

A two-thirds vote of the members of the House of Delegates present and voting shall be necessary for adoption

Amendments made necessary by law shall be made either by the Council of Trustees or House of Delegates whenever such necessity exists

BY-LAWS

Chapter I

Membership

Sec 1 The active members shall be all active members in good standing of the component County Medical Societies A copy of the roster of such members, certified to be correct by the Secretary of such County Society shall be evidence of the right of the members whose names appear therein to membership in this Society No member who has been dropped from the roll of a component County Society by reason of failure to pay dues shall be accepted by another Society except by regular transfer after reinstatement in the original Society

Sec 2 The term "good standing" is hereby defined as (a) A member is in good standing when his dues to his County Society and the assessment of the State Society have been paid when they are due and payable (b) A member whose dues and assessments are unpaid after May 31 of any current year, is not in good standing He is in arrears for dues He has lost his right to malpractice defense by counsel of the Medical Society of the State of New York for any acts upon which suit may be predicated during the period of his arrearage This last is not recoverable, even when he becomes reinstated Immediately upon payment of dues during the current year, his right to malpractice defense by counsel of the Medical Society of the State of New York shall be restored from that date (c) A member whose dues and assessment are unpaid after December 31 of any current year shall automatically be dropped from the rolls of membership of both County and

State Societies, without notice to such member by his County Medical Society or the Medical Society of the State of New York, or without further action on the part of either County or State Society, and upon such date, he shall automatically cease to be a member of both County and State Societies

Sec 3 Any member expelled from his component County Society or suspended from its rights and privileges, shall likewise be expelled or suspended for the same period from this Society The right of appeal to this Society shall not be impaired, nor shall such appeal prevent the carrying out of the judgment of the County Society pending such appeal Members not in good standing or ceasing to be members of their County Societies, shall *ipso facto* have the same status in this Society Suspension or expulsion shall terminate malpractice defense and automatically cancel the Society's malpractice insurance

Sec 4 A member of one County Society shall not be permitted to transfer to membership in another County Society until he has established a legal residence in the County to which he desires transfer The question of legal residence shall be verified by the Board of Censors of the County Medical Society to which the member desires transfer

Sec 5 Any member convicted in a court of law of a crime evincing moral turpitude shall thereupon cease to be a member of this Society

Sec 6 A member in good standing in his component County Medical Society, reaching seventy years of age or if perma-

of Delegates The Council of Trustees shall have power and authority to employ, discharge, arrange duties and fix compensation of and for any employee which it may find necessary for conducting the affairs of the Society

Sec. 2 The Council of Trustees shall meet at the close of the annual meeting of the House of Delegates The members of the Council of Trustees shall hold office until their successors are duly elected and qualified.

Sec. 3 It shall meet at regular intervals at times and places that shall be fixed by the Chairman Any four members of the Council of Trustees may require the Chairman thereof to call a meeting for such time and place as shall be designated by them in writing Members must receive at least two days notice in letter or telegram from the Society's office

Sec. 4 A quorum shall consist of eleven members

Sec. 5 The Council of Trustees shall have charge of all property including trust funds and shall supervise the financial affairs of the Society and shall invest the surplus from time to time, and all resolutions or recommendations of the House of Delegates pertaining to expenditure of money must be approved by the Council of Trustees before the same shall become effective. The administrative year shall begin July 1 and end June 30 of the following year

Sec. 6 All moneys of the Society received by the Council of Trustees or any member or agent thereof shall be paid to the Treasurer of the Society The Council of Trustees shall approve the bond of the Treasurer and the Assistant Treasurer as to amount, form and surety, and shall employ a certified public accountant licensed by the State of New York to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its Annual Report to the House of Delegates

Sec. 7 The Council of Trustees shall take such action as is necessary to carry out the Constitution and By-Laws and to give full effect to any resolution or vote of the House of Delegates It shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Constitution and By-Laws

Sec. 8 The Council of Trustees shall have power to fill any vacancy which may occur in any elective office not otherwise provided for, until the next annual meeting of the House of Delegates

Sec. 9 The Council of Trustees shall have responsibility for all publications of the Society and their distribution Any Special Committee of the Society shall report to the Council of Trustees and shall be subject in all ways to the Council of Trustees unless otherwise instructed by the House of Delegates The Council of Trustees shall advise the legal counsel in actions brought against members for alleged malpractice With the aid of legal counsel, it shall examine the Constitution and By-Laws of component County Societies and District Branches and all amendments thereto which may be submitted to the Council of Trustees for approval and shall approve or disapprove of said amendments

Sec. 10 No Board, Commission, or Committee shall inaugurate or initiate any policy or commit the Society to any policy unless the same has been expressly approved by the House of Delegates or by the Council of Trustees

Sec. 11 The duties of the Council of Trustees shall also include the study and/or supervision of the following activities

- (a) All Scientific Work presented at each annual meeting
- (b) Scientific Exhibits
- (c) Medical Education
- (d) Journal Management and Publication.
- (e) Medical and related research
- (f) Arrangements for annual meeting
- (g) Preventive Medicine
- (h) Public Health
- (i) Legislation
- (j) Economics
- (k) Workmen's Compensation
- (l) Health and Welfare Departments of State
- (m) Medical Publicity
- (n) Hospitals, Clinics, and Welfare Agencies
- (o) Cooperative Relationships with Federal and State Governments, Foundations and other lay groups
- (p) Malpractice Defense and Insurance.

Sec. 12 Subcommittees of the Council of Trustees may include other members of the Society and may be nominated by the President subject to the approval of the Council of Trustees Each subcommittee shall include at least one member of the Council of Trustees who shall be chairman, except that he need not be chairman for subcommittee or subcommittees in charge of

- 14 Unfinished Business
- 15 New Business
- 16 Adjournment.

Chapter III

Election of Officers, Trustees and Delegates

Sec 1 The Officers and the Trustees of the Society and the Delegates to the American Medical Association shall be elected at the last adjourned session of the annual meeting of the House of Delegates, which adjourned session shall be held at a convenient hour on the first, second, or third day of the annual meeting of the Society. No member of the Society who is in arrears for County dues or State Society per capita assessment shall be eligible for any office or entitled to vote for any officer, trustee or delegate.

Sec 2 The President, the President-Elect, who shall serve as first Vice-President, the second Vice-President, the Treasurer, the Assistant Treasurer, the Speaker and the Vice-Speaker of the House of Delegates shall be elected for one year or until their successors have been duly chosen.

Three other members of the Council of Trustees shall be elected annually for a term of five years, except in 1937, when three members shall be elected for five years, three for four years, three for three years, three for two years and three for one year. In the event of a vacancy, a Trustee shall be elected for the unexpired term.

Sec. 3 The first order of business at the last adjourned session of the House of Delegates of each annual meeting shall be the nominations for officers of the Society and other members of the Council of Trustees and delegates to the American Medical Association and the appointment of a sufficient number of tellers by the Speaker. After all nominations shall have been made the Secretary shall cause to be displayed in full sight of the delegates a list of nominees for each office arranged in alphabetical order, and shall also cause to be distributed a sufficient number of blank ballots for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for.

Sec 4 All elections for such offices and

positions shall be by ballot, each member depositing his ballot on roll call individually. In the event of a single nominee only for any office or position, a majority vote without ballot shall elect. In case no nominee for an office receives a majority of votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast when he shall be declared elected.

Sec. 5 The following method shall govern the election of delegates to the American Medical Association. Nominations shall be made for not less than double the full number of delegates to be elected, and the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen, a corresponding number in the next highest order of votes cast shall be declared alternate delegates. When the full number of delegates are not available for attendance at the meeting, the President shall appoint and certify a sufficient number to complete the quota.

Sec. 6 The delegates to the American Medical Association shall be elected in the calendar year preceding the meeting of the House of Delegates of the American Medical Association, to which they are elected and in accordance with the Constitution and By-Laws of that body for a term of two years. Delegates may be elected to other medical societies or similar bodies as the interests of the Society may require, and credentials shall be issued to all delegates, signed by the President and Secretary.

Chapter IV

Council of Trustees

Sec 1 The Council of Trustees shall be the Executive and Administrative body of the Society while the House of Delegates is not in session and shall control all arrangements for the annual meeting. It shall prepare an annual budget. Its resolutions and actions shall be decisive and final except that all resolutions and actions of the Council of Trustees are subject to review, reconsideration, and action by the House of Delegates. Its actions shall be governed by the Constitution and By-Laws of the Society and the rules and regulations of the House

or reverse by a two-thirds vote of the Censors present and voting, the decisions so appealed from. If, in its opinion, the taking of further evidence is advisable, the Board of Censors may summon witnesses and proceed to take such evidence in such manner as it may deem proper and render its decision by a two-thirds vote of those present and voting, which decision shall be binding until reversed or modified by the House of Delegates.

Sec. 7 The Board of Censors shall investigate all charges preferred (a) by a member of a component County Society against any component County Medical Society of which he is not a member, and (b) by a component County Medical Society against another such County Society or a member thereof, and the Secretary of the Board of Censors shall submit the report to the House of Delegates for action thereon.

Sec. 8 A party desiring to appeal to the House of Delegates from the decision of the Board of Censors shall within three months after such decision, file with the Secretary of this Society and the Secretary of the component Society a notice of appeal. Such notice of appeal shall set forth in writing the name of the appellant, the name of the component County Society, the date and substance of the decision appealed from and the ground or grounds upon which such appeal is taken. The appellant must also state if he desires to be present in person or by counsel.

Sec. 9 Upon the filing of a notice of appeal the appellant and the Secretary of the Board of Censors shall submit to the House of Delegates the decision and all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter.

Sec. 10 The House of Delegates shall consider and decide the appeal on the data submitted to it, and may affirm, modify or reverse the decision so appealed from. Such decision of the House of Delegates shall be final and binding.

Chapter VI

Duties of Officers

Sec. 1 The President shall preside at all meetings of the Society, the Council of Trustees, and the Censors. He shall be ex-officio member of the Board of Censors and

of all committees. He shall appoint all committees not otherwise provided for, subject to the approval of the Council of Trustees. He shall assign the special branches of work for which the members of the Council of Trustees shall be responsible, subject to the approval of the Council of Trustees. He shall also appoint all members of sub-committees of this Council subject to the approval of the Council of Trustees. The President shall deliver an address at the annual meeting of the Society. He shall perform such other duties as the House of Delegates or the Council of Trustees shall require.

Sec. 2 The President-Elect shall perform the duties of the President in the absence of the President. In the event of the President's death, resignation, removal, incapacity or refusal to act, the President-Elect shall succeed him.

Sec. 3 The immediate past President shall be a member of the Council of Trustees.

Sec. 4 The Speaker shall preside at all meetings of the House of Delegates. He shall appoint all parliamentary committees to serve during the meeting of the House of Delegates at least thirty days in advance of the meeting. All resolutions submitted by County Medical Societies and District Branches to be presented to the House of Delegates should be forwarded to the Speaker at least forty-five days in advance of the annual meeting of the House and referred by him to the appropriate Reference Committee.

Sec. 5 The Vice-Speaker shall perform the duties of the Speaker when requested by the Speaker to do so, or in case of the absence, death, resignation or refusal of the Speaker to act.

Sec. 6 The Secretary shall attend all meetings of the Society, the House of Delegates, the Council of Trustees, and the Board of Censors, and shall keep minutes of their respective proceedings. These minutes shall be copied from a stenographer's notes with such deletion only as will not modify, alter, or becloud the history of the actions of the said bodies. The stenographer's typewritten copy shall be preserved until ordered destroyed by the Council of Trustees.

The Secretary shall be responsible for and have general charge of the Society's offices and the employees therein. He shall be the custodian of the seal of the Society, and of all books of records and papers belonging to the Society, except such as prop-

activities "A", "B" and "F", Chapter IV, Section 11 of the By-Laws. The Membership of subcommittees shall not exceed three, including the chairman except subcommittee or subcommittees in charge of activities "A", "B" and "F". Chapter IV, Section 11 of the By-Laws.

Sec. 13 The following shall be the order of business at meetings of the Council of Trustees

- 1 Calling the meeting to order
- 2 Roll Call
- 3 Reading of Minutes
- 4 Communications
- 5 Report of the Secretary
- 6 Report of Treasurer
- 7 Report of Committees
- 8 Unfinished Business
- 9 New Business
- 10 Adjournment.

CHAPTER V

Board of Censors

Sec. 1 Members of the Board of Censors shall be nominated each year by the President and approved by the Council of Trustees at its first meeting following the annual meeting of the House of Delegates. They shall hold office for one year or until their successors are elected. The President of the Society shall sit as the presiding officer of the Board of Censors but shall vote only in case of a tie. The Secretary shall sit as Secretary of the Board without vote. The Board of Censors shall meet upon the call of the President. It shall report its findings to the House of Delegates.

Three Censors (not including the President) shall constitute a quorum. Each District Branch shall be represented upon the Board of Censors one year in each two years. When an appeal involves a member or members or a County Society or Societies in the jurisdiction of a Censor such Censor shall be disqualified to act as a member of the Board of Censors and the President shall nominate an alternate for him in the person of another District Branch President who is not regularly serving as Censor.

When an appeal involves a member or members or a County Society or Societies within the District in which the President resides, he shall be disqualified to act as a member of the Board of Censors and the First Vice-President shall serve in his stead.

Sec. 2 The Board of Censors shall have jurisdiction to hear and determine all appeals from decisions on discipline of component County Medical Societies or decisions of such Societies which may involve the privileges, rights or standing of members whether in relation to one another or to County Medical Societies or to this Society. Any member of any component County Medical Society feeling aggrieved by the decision of such Society may within three months after such decision appeal to the Board of Censors of this Society from the decision of such component County Medical Society by filing a notice of appeal with the Secretary of this Society, and the Secretary of the component County Society.

Sec. 3 Any applicant for membership in a component County Medical Society who may have been excluded from membership in such Society, may likewise appeal from the action of said Society excluding him. All decisions shall be subject to appeal to the House of Delegates.

Sec. 4 The notice of appeal shall set forth in writing the name of the appellant, the name of such component County Medical Society and the date and substance of the decision appealed from and shall indicate the ground or grounds upon which such appeal is taken. If the appellant desires to be present in person or by counsel at the hearing of said appeal, the notice of appeal must so state. In that event, the appellant must file with the notice of appeal a bond in the sum of \$500 to cover the costs of said appeal. If the appellant fails to appear in person or by counsel upon the hearing of said appeal he shall forfeit to the Medical Society of the State of New York such share of said bond as represents necessary expenditures incident to convening the Board of Censors for the hearing of said appeal.

Sec. 5 Upon filing a notice of appeal, the appellant and the component County Medical Society shall submit to the Secretary of the Board of Censors all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter. All data so submitted shall be available only to the Censors, and on appeal, to the members of the House of Delegates.

Sec. 6 The Board of Censors shall consider the appeal on the data so submitted to it, and may affirm by a majority vote, modify

or reverse by a two-thirds vote of the Censors present and voting, the decisions so appealed from. If, in its opinion, the taking of further evidence is advisable, the Board of Censors may summon witnesses and proceed to take such evidence in such manner as it may deem proper and render its decision by a two-thirds vote of those present and voting, which decision shall be binding until reversed or modified by the House of Delegates.

Sec. 7 The Board of Censors shall investigate all charges preferred (a) by a member of a component County Society against any component County Medical Society of which he is not a member, and (b) by a component County Medical Society against another such County Society or a member thereof, and the Secretary of the Board of Censors shall submit the report to the House of Delegates for action thereon.

Sec. 8 A party desiring to appeal to the House of Delegates from the decision of the Board of Censors shall within three months after such decision, file with the Secretary of this Society and the Secretary of the component Society a notice of appeal. Such notice of appeal shall set forth in writing the name of the appellant, the name of the component County Society, the date and substance of the decision appealed from and the ground or grounds upon which such appeal is taken. The appellant must also state if he desires to be present in person or by counsel.

Sec. 9 Upon the filing of a notice of appeal the appellant and the Secretary of the Board of Censors shall submit to the House of Delegates the decision and all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter.

Sec. 10 The House of Delegates shall consider and decide the appeal on the data submitted to it, and may affirm, modify or reverse the decision so appealed from. Such decision of the House of Delegates shall be final and binding.

Chapter VI

Duties of Officers

Sec. 1 The President shall preside at all meetings of the Society, the Council of Trustees, and the Censors. He shall be ex-officio member of the Board of Censors and

of all committees. He shall appoint all committees not otherwise provided for, subject to the approval of the Council of Trustees. He shall assign the special branches of work for which the members of the Council of Trustees shall be responsible, subject to the approval of the Council of Trustees. He shall also appoint all members of sub-committees of this Council, subject to the approval of the Council of Trustees. The President shall deliver an address at the annual meeting of the Society. He shall perform such other duties as the House of Delegates or the Council of Trustees shall require.

Sec. 2 The President-Elect shall perform the duties of the President in the absence of the President. In the event of the President's death, resignation, removal, incapacity or refusal to act the President-Elect shall succeed him.

Sec. 3 The immediate past President shall be a member of the Council of Trustees.

Sec. 4 The Speaker shall preside at all meetings of the House of Delegates. He shall appoint all parliamentary committees to serve during the meeting of the House of Delegates at least thirty days in advance of the meeting. All resolutions submitted by County Medical Societies and District Branches to be presented to the House of Delegates should be forwarded to the Speaker at least forty-five days in advance of the annual meeting of the House and referred by him to the appropriate Reference Committee.

Sec. 5 The Vice-Speaker shall perform the duties of the Speaker when requested by the Speaker to do so, or in case of the absence, death, resignation or refusal of the Speaker to act.

Sec. 6 The Secretary shall attend all meetings of the Society, the House of Delegates, the Council of Trustees, and the Board of Censors, and shall keep minutes of their respective proceedings. These minutes shall be copied from a stenographer's notes with such deletion only as will not modify, alter, or becloud the history of the actions of the said bodies. The stenographer's typewritten copy shall be preserved until ordered destroyed by the Council of Trustees.

The Secretary shall be responsible for and have general charge of the Society's offices and the employees therein. He shall be the custodian of the seal of the Society, and of all books of records and papers belonging to the Society, except such as prop-

erly belong to the Treasurer, and shall keep an account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members at all sessions of the Society. With the aid and cooperation of the Secretaries of the County Societies, he shall keep a proper register of all the registered physicians of the State by counties. He shall aid the officers of the District Branches in the organization and improvement of the County Societies and the extension of the power and influence of the Society. He shall conduct the official correspondence, notifying members of meetings, Officers, Trustees and Board members of their election and committees of their appointment and duties. He shall affix the seal of the Society to all credentials issued to members of the Society elected by the House of Delegates and to such other papers and documents as may require the same. He shall make an annual report to the House of Delegates. He shall supply each County Society with the necessary blanks for making their annual reports to this Society. Acting in cooperation with the Council of Trustees, he shall prepare and issue all programs. He shall be ex-officio a member of all boards and committees, without vote. He shall record the name and date of admission of each member of the Society.

Sec. 8 The Assistant Secretary shall aid the Secretary in the work of his office and in the absence or disability of the latter, he shall perform the duties of the office until the Secretary resumes the work, or in case of a vacancy until a successor shall be elected.

Sec. 9 The Treasurer shall keep accurate books of accounts of all moneys of the Society which he may receive, and shall disburse the same when duly authorized, but all checks drawn by the Treasurer upon the funds of the Society shall be countersigned by the Secretary of the Society. He shall collect, on or before the first day of June in each year, from the Treasurer of each component County Society the State per capita assessment. He shall at the expense of the Society give a bond for the faithful performance of his duties, which shall be approved by the Council of Trustees as to amount, form, and surety. He shall make an annual report to the House of Delegates and monthly reports to the Council of Trustees. He shall be a member of the Council of Trustees.

Sec. 10 The Assistant Treasurer shall aid the Treasurer in the work of his office, and in the absence or disability of the latter, he shall perform the duties of the office until the Treasurer resumes the work, or in case of a vacancy until a successor shall be elected. He shall, at the expense of the Society, give a bond for the faithful performance of his duties, which shall be approved by the Council of Trustees as to the amount, form, and surety. He shall be entitled to all the rights and privileges of the office while acting as Treasurer.

Sec. 11 Concerning substitutions in office.

The Second Vice-President, the Assistant Secretary, the Assistant Treasurer and the Vice-Speaker shall serve as the First Vice-President, the Secretary, the Treasurer and the Speaker, respectively, whenever these senior officers are incapacitated for service by injury, ill health of themselves or families, imperative professional duties, or by other mandatory absences. This shall be construed so as to include duty at or during meetings of the Council of Trustees, as well as the other official duties designated for the senior officer. The senior officer shall promptly notify the junior officer of his incapacity and request his attention to said duties.

Sec. 12 Each President of a District Branch shall visit the County Societies of his district at least once a year and make a careful inquiry of the condition of the profession in each county in his district and shall report thereon to the House of Delegates.

Chapter VII

Direction of Activities

Sec. 1 (a) An officer to be known as the Director of Activities shall be employed by the Society. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability, and who will give his full time and undivided attention to the affairs of the Society. He shall have been in actual practice for at least ten years or shall have qualifications which in the opinion of the Council of Trustees are equivalent to the same.

(b) The duties of the Director of Activities shall be as follows. He shall have general management of the executive details of the Society's business, subject to the Council of Trustees, he shall be the coordinator of

all activities of the Society, he shall act as Secretary of the House of Delegates, of the Council of Trustees, and of the Board of Censors. Upon the signing of his contract with the Society, he shall automatically become the Secretary of the Society and assume all duties designated for the Secretary in Chapter VI, Section 6.

Sec 2 An officer to be known as the Associate Director shall be employed by the Society. He shall assist the Director of Activities. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability and who will give his full time and undivided attention to the affairs of the Society, subject to the direction of the Council of Trustees and the Director of Activities. He shall have been in actual practice at least seven years, or shall have qualifications which in the opinion of the Council of Trustees are equivalent to the same. Upon the signing of his contract with the Society, he shall automatically become the Assistant Secretary of the Society.

Sec. 3 The terms of service of the Director of Activities and the Associate Director shall correspond with the administrative year of the Society, i.e. July 1 of one year to June 30 of the following year.

Chapter VIII

Meetings

Sec. 1 The notices of the annual and special meetings of the Medical Society of the State of New York, and its House of Delegates, and of regular meetings of the Council of Trustees, and the Board of Censors, shall state the date, place and hour and shall be mailed in securely post-paid wrapper to each member of the body holding such meeting at least seven days before said meeting. The affidavit of mailing by the Secretary of the Society to the last recorded address of the member shall be deemed sufficient proof of the service upon each and every member for any and all purposes.

Sec. 2 Each member in attendance at the annual or special meeting of the Society shall enter his name and the name of the component County Medical Society to which he belongs in a register to be kept by the Secretary of the Society for that purpose. No member shall take part in any of the

proceedings of such a meeting until he shall have complied therewith.

Sec 3 All members in good standing so registered may attend and participate in the proceedings and discussions of the general meetings of the Society and of the Sections.

Sec. 4 The following shall be the order of business at all general meetings of the Society:

- 1 Calling the Society to order
- 2 Address of welcome by the Chairman of the Committee on Arrangements
- 3 Reading the minutes of the last meeting
- 4 Miscellaneous business
- 5 President's address
- 6 Special addresses
- 7 Reading and discussion of papers

Sec 5 Special meetings of the Society shall be called by the President upon the request in writing of two hundred and fifty members from the membership of at least ten component County Societies, and in case of the failure, inability or refusal of the President to act, such meeting may be called by a notice thereof subscribed by two hundred and fifty members.

Sec. 6 Special meetings of the House of Delegates shall be called by the Speaker upon the request in writing of sixty delegates, or at request of the Council of Trustees, and in case of the failure, inability or refusal of the Speaker to act, such meetings may be called by a notice thereof subscribed by sixty delegates.

Chapter IX

Expenses

Sec 1 Allowances for expenses incurred in the actual performance of official duties by officers, members of the Council of Trustees, Board of Censors, and committees, and delegates to the American Medical Association shall be made in conformity with the following conditions. The President shall be allowed a *per diem* and expenses when engaged upon official business. All other officers shall be allowed travelling expenses when engaged upon official business. Members of the Council of Trustees, Board of Censors, shall be allowed travelling expenses. Members of committees and subcommittees of the Council of Trustees, Board of Censors, shall be allowed travelling expenses. Proper vouchers must be filed with the Secretary and approved by the Council of Trustees before any of above allowances are made. The delegates to the

American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. The vouchers of such expense shall be approved by the Council of Trustees before payment. Each District Branch shall be entitled to receive a sum not to exceed \$200 00, exclusive of the work done by the Secretary regarding notices, programs, etc to defray the expenses of holding the annual meeting of such District Branch, provided a proper statement of such expense shall have been presented to the Secretary and approved by the Council of Trustees. All bills, claims or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Council of Trustees and such extension shall not exceed ninety days.

Chapter X

Reference Committees

Sec 1 At least one month before the meeting of the House of Delegates the Speaker shall appoint and publish in the Journal such Reference Committees as he shall deem expedient for the purposes of the meeting. Immediately after the organization of the House of Delegates he shall formally announce the appointments of the Committees. Only members of the House of Delegates are eligible for appointment on the Reference Committees. Such Committees shall consist of five members, three members constituting a quorum, and shall serve during the meeting for which they are appointed.

Sec 2 Reports of Officers, Council of Trustees, and Committees shall be printed at least one month before the meeting of the House of Delegates and sent to the members of the Reference Committee appointed according to Section 1, for their preliminary consideration. All recommendations, resolutions, measures, and propositions presented to the House of Delegates and which have been duly seconded shall be referred by the Speaker to the appropriate Reference Committees.

Sec 3 Each Reference Committee shall

immediately consider such business as may have been referred to it and shall report promptly to the House.

Chapter XI

Special Committees

Sec 1 Special Committees may be created by the House of Delegates to perform the special functions for which they are created. They shall be appointed by the officer presiding over the meeting at which the committee is authorized, if such committee is to conclude its work during said meeting of the House of Delegates. The President shall appoint all other committees subject to the approval of the Council of Trustees unless otherwise ordered by the House of Delegates.

Sec 2 A Special Committee on Prize Essays consisting of three members, including the Chairman, shall be appointed by the President with the approval of the Council of Trustees. Its duty shall be to receive all essays offered in competition for prizes which may be offered by this Society. The Committee shall make all necessary rules and regulations for the award of prizes subject to the terms of the deeds of gift, and shall report the result at the next annual meeting of the House of Delegates. It shall give notice through the Society's publication or by other methods within thirty days after appointment, of the amount of the prize and when the essays shall be submitted to the Committee.

Sec 3 Any member of the Society shall be eligible to serve on Special Committees. All members of such committees, who are not members of the House of Delegates, shall have the right to present their reports in person to the House of Delegates and to participate in the debate thereon, but shall not have the right to vote.

Sec 4 Completion of Work. In all cases where certain work is being performed or problems studied by any Special Committee, such work or study shall not be considered finished when the tenure of office of such Committee ends, but shall be continued by the succeeding Committee.

Chapter XII

Sections

Sec 1 The Scientific Sections designated by the House of Delegates shall each organ-

ize by the election of a Chairman and Secretary. The Chairman shall be elected annually, the Secretary for such term as the Section may deem fit.

Sec. 2 The officers of the various Sections shall prepare programs for their Sections under the direction and subject to the approval of the Council of Trustees.

Sec. 3 The election of officers of Sections shall be the first order of business of the first session of the second day of each annual meeting. To participate in the election of any Section, a member must be registered with such Section and must have recorded his name and address in the Section registry.

Sec. 4 Each Section shall hold its meetings at such times as designated by the Council of Trustees.

Chapter XIII

District Branches

Sec. 1 Each District Branch shall elect a President for two years, who shall be a District Delegate of the House of Delegates during his term in said office.

Sec. 2 Each District Branch shall elect such officers as are provided for in its By-Laws, who shall attend the business meetings of the Branch.

Chapter XIV

Component County Medical Societies

Sec. 1 Whenever an active member in good standing in any component County Medical Society removes to another County in this State, his name, upon his request, shall be transferred to the roster of the component County Medical Society of the County to which he removes, without cost to him, provided that he files a certificate with the Secretary signed by the President and Secretary of the component Society from which he removes as to his good standing in such Society. No member, however, shall be an active member of more than one component County Society, nor shall any component County Society accept a physician residing in another County in any other way than in accordance with the law governing transfers.

When a member in good standing ceases to reside and practice in the State of New York he shall *ipso facto* cease to be a member of the Society and of his component County Medical Society. His status shall be deemed that of a resigned member and all rights and title to any share in the privileges and property of the Society, the District Branch, or County Society, shall be deemed to have been forfeited by such action.

The dues of any member of the Medical Society of the State of New York may be remitted for the current year on account of illness when the request is made by the member's component County Medical Society.

Sec. 2 At its annual meeting each component County Medical Society shall elect a delegate or delegates to represent it in the House of Delegates of this Society in accordance with the Constitution and By-Laws of this Society.

Sec. 3 The Secretary of each component County Medical Society shall keep a roster of its members in which shall appear the full name of each of said physicians, the date of his admission to such society, his residence, and the date when his license to practice medicine in this State was granted. He shall note any changes in said roster by reason of removal, death or change of name, revocation of license or other disqualification.

He shall forward said roster and information, together with the names and places of residence of each of the officers of said society and the names and residence of each delegate of the House of Delegates of said society to the Secretary of this Society sixty days before the date of its annual meeting.

Sec. 4 The Treasurer of each component County Medical Society shall forward to the Treasurer of this Society the amount of the State per capita assessment on or before the first day of June of each year.

Sec. 5 Each component County Medical Society shall adopt a Constitution and By-Laws for the regulation of its affairs and may amend the same provided they shall be first approved by the Council of Trustees before becoming effective. The Constitution and By-Laws of component County Societies must not be in conflict with the Constitution and By-Laws of this Society.

Chapter XV

Miscellaneous

Sec 1 No address or paper before the Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak upon any question before the House of Delegates for longer than five minutes nor more than once on any subject, except by the consent of a majority vote

Sec 2 All papers read before the Society by its members shall become the property of the Society. Permission may be given, however, by the Council of Trustees or House of Delegates to publish such paper in advance of its appearance in the *NEW YORK STATE JOURNAL OF MEDICINE*.

Sec 3 Any distinguished physician of a foreign country or a physician not a resident of this State, who is a member of his own State Association, may become a guest during any annual session upon the invitation of the President or officers of the Society, and may be accorded the privilege of participating in all the scientific work of the session

Sec 4 The rules contained in Robert's Rules of Order shall govern the Society and the House of Delegates in all cases in which they are not inconsistent or in conflict with the Constitution and By-Laws of the Society or the standing or special rules of the House of Delegates

Sec 5 Written charges may be preferred against any officers, Trustees, and members of Boards and Special Committees of the Society, for malfeasance or nonfeasance in office, by any member and transmitted to the President. The President shall order a trial upon said charges by the Council of Trustees or a Committee thereof, and in the event of such trial the accused shall be given at least ten days' notice of such charges and have full opportunity to defend the same, but no such officer or member of the committee

shall be removed or otherwise disciplined except by a two-thirds vote of the Council of Trustees. In case any such officer, or trustee, or member of a board or committee shall be removed, he may appeal from the decision of the said Council of Trustees to the House of Delegates, but pending the determination of such appeal, he shall not exercise the functions of his office.

Sec 6 Sections of the By-Laws which refer to the order of business and to reference committees may be suspended by a two-thirds vote of the House of Delegates

Chapter XVI

Sec 1 The seal of the Society shall be as follows

Chapter XVII

Amendments

Sec 1 Amendments to these By-Laws, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates

Sec 2 Notice of the proposed amendment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon it shall be published once before the annual meeting in the official bulletin or journal of the Society

Sec 3 The affirmative vote of two-thirds of the House of Delegates present and voting shall be necessary for adoption

Sec 4 Amendments made necessary by law shall be made either by the Council of Trustees or House of Delegates whenever such necessity exists

O W H MITCHELL, *Chairman, Syracuse*
WALTER W MOTT, *White Plains*
CHARLES H GOODRICH, *Brooklyn*
THOMAS H CUNNINGHAM, *Glens Falls*
JOSEPH C O'GORMAN, *Buffalo*

GEORGE WASHINGTON SCHOOL OF MEDICINE

The Fifth Annual Post Graduate Clinic of the George Washington School of Medicine at Washington, D C., is to be held Saturday, February 20. Clinics will be held, papers will be presented, laboratories will be

open for inspection, and luncheon will be served, all at the Medical School and Hospital. The Banquet of the George Washington Medical Society will be held the same evening at the Mayflower Hotel

REFERENDUM VOTE

Of The 1936 House of Delegates

On December 14, 1936 the Council of the Medical Society of the State of New York ordered a vote by mail which is explained in the following

Memorandum to Members of 1936 House of Delegates

EVENTS AND INFORMATION considered by the Council in deciding that it would be unwise to attempt in 1937 to effect legislation looking toward limitation of "administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency"

I The mandate of the 1936 House was duly passed to the Committee on Legislation, and that Committee has been prepared to act in accordance—unless instructed to the contrary

II The Legislative Committee has at times since April 27, 1936 reported to the Executive Committee and finally to the Council certain facts of which it had been earlier aware and which it later learned. It has found that there is much opposition to the passage of a law at this time because of these facts. It has drawn up a memorandum which accurately states the present status of the matter in the following words

"In anticipating legislation on this subject, the Committee has encountered certain important facts which are of special interest at this time. This matter was sponsored under the so-called 'Crawford Bill' and failed of enactment two years ago. There are on file in the Legislative Bureau letters of protest from some of the most representative members of the State Society vigorously opposing legislation of this nature. We also have protests unanimously adopted by the attending staff of representative hospitals throughout the State opposing this legislation

"The Committee has also interviewed many physicians at random throughout the State and finds that there is a general conflict of opinion as to the wisdom of this proposed legislation at this time. The Legislative Committee undertook to consult with many leading anesthetists of this State, who are members of the State Society, and who represent recognized state and national organizations on anesthesia, and found them to be of the unanimous opinion that this is not an opportune time to seek such legislation. These specialists in anesthesia asked that action be postponed for several reasons. First, that there is not now a sufficient number of medical men willing to take up anes-

thesia to take over the entire work, second, that there are still many prominent physicians, surgeons, and hospitals which prefer nurse anesthetists (of whom there are now about 700 in the State), and if given time they feel that they can remove a great portion of this opposition. We have a letter from the Chairman of the new Session on Anesthesia of the State Society, advising that action be postponed

"From a practical standpoint we must conclude that the profession itself is divided as to the wisdom of this proposed legislation at this time. In this connection we can also anticipate the vigorous and sustained objections of certain hospital and nursing groups. Such militant and widespread opposition has a way of crystallizing itself in legislative halls, and with these hazards already facing such a bill, only the most visionary optimist could hope for its enactment into law at this time

"The legislative Committee is in entire accord with the principle that anesthesia should be developed as a special branch of medicine. We believe that true progress in this field can come only through original observation and research by medical men. From a scientific standpoint we believe that progress is being retarded because this field has been taken over by others. We recommend that the State Society through all its agencies—educational, scientific, and publicity—stress the scientific phase of the practice of anesthesia, encourage and sponsor facilities through which physicians can equip themselves to assume the growing responsibilities which the administration of not only the older, but the newer anesthetics imposes upon us. This done effectively, the proposed legislation will then stand a better chance of enactment."

III On December 10, 1936 there appeared before the Council Dr. T. Drysdale Buchanan representing the New York members of the American Society of Anesthetists, and Dr. Paul Wood of the American Society of Regional Anesthesia. These gentlemen counselled postponement of action for this year, at least—if not longer. Both were strongly in favor of limitation of anesthesia to physicians only, but both were of the opinion that no legislation to that effect should be supported this year, or

until a sufficient time has passed to allow for training of sufficient physicians to replace the large number (700) of nurses now regularly giving anesthesia in the State

IV With this gradually increasing information, culminating in the counsel of the anesthesiologists themselves, the Council, although in full sympathy with the idea of eventual limitation of anesthesia to physicians and dentists only, found itself wholly in favor of delay in pressing for legislation. It, therefore, took the action for 1937 indicated in its formal rescinding resolution

FLOYD S WINSLOW, *President*
PETER IRVING, *Secretary*

January 11, 1937

The following ballot was sent to the 196 members

Referendum Ballot

To Member of 1936 House of Delegates

From The Secretary of the Medical Society of the State of New York.

As directed in Chapter IV, Section 5 of the By-Laws, a question is submitted below which requires your vote as a member of the 1936 House of Delegates

The By-Laws state that the Council "shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Constitution and By-Laws. Such legislative action of the Council shall not become effective or binding on the Society until approved by a majority of a referendum vote of the House of Delegates, provided a majority of the House of Delegates vote thereon within fifteen days after the mailing of the question submitted for referendum. The Secretary shall send the question for referendum vote to all the members of the House of Delegates."

On April 27, 1936 the House of Delegates recorded a mandate "That the proper com-

mittee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a bill to limit the administration of anesthesia to duly licensed physicians and dentists except in cases of emergency"

On December 10, 1936 the Council rescinded this mandate by the following resolution "That the action of the 1936 House of Delegates which gave the mandate to the Committee on Legislation to support a bill limiting the giving of anesthesia to physicians be rescinded—this action to be submitted (as provided in the Constitution and By-Laws) to a referendum vote of the 1936 House of Delegates, and that as an aid to voting, a circular be formulated and distributed to the members, which shall set forth the reasons why the Anesthesia Societies advise delay"

The question is SHALL THE ACTION OF THE COUNCIL IN RESCINDING THE ABOVE MANDATE OF THE HOUSE OF DELEGATES BE APPROVED?

In order to aid you to make a decision as directed by the Council, there is attached a memorandum of the events and information which led the Council to its conclusion to rescind

Please indicate your vote hereon, *sign*, and return at your earliest convenience to me, before January 26, 1937, (when the statutory fifteen days will have passed)

YES

NO

Action of Council approved

Signature

Date

Respectfully submitted,

PETER IRVING, M D, Secretary

165 signed ballots were returned Of these 157 were approvals, 8 disapprovals

FOREIGN CONGRESSES NEXT FALL

As an aid in planning a trip abroad next year, it might be noted that on September 13, 14 and 15, 1937 the International Society of Gastroenterology will hold its Second Congress in Paris, France. The subjects to be discussed are "The Diagnosis of Gastric Carcinoma" and "The Acute and Chronic Occlusions of the Small Intestine." This Congress will be immediately followed by the International Congress on Hepatic Insufficiencies to be held in Vichy (90 miles

from Paris) on September 16, 17 and 18. The United States National Committee of the International Society of Gastroenterology has been formed by representatives of the various gastroenterological societies in this country. The allotment of members in the United States is rapidly being filled and those who are interested in any of the phases of gastroenterological work and would like to join, apply to the President, Dr. Anthony Bassler, New York City.

PNEUMONIA CONTROL PROGRAM

Prize for Report on Cases of Pneumonia

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the NEW YORK STATE JOURNAL OF MEDICINE

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1

Address further inquiry to

Dr Edward S Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N Y

That the physicians of the State may have concrete examples of different phases of anti pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti pneumococcus serum produced and distributed by it

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 2

Report from the records of Robert S MacDonald, M D, Plattsburg

"A woman, thirty-two years of age, had a mastoidectomy on November 22. The operation and postoperative course were without event until the end of the first week when the patient developed evidence of acute respiratory infection with a cough productive of clear mucoid sputum. On November 29 there occurred a sharp elevation in temperature to 103.6° F, pulse ninety, and respiration thirty.

'At this time there were no physical signs in the chest excepting occasional rales at the base of the right lung. A presumptive diagnosis of pneumonia was made. Immediate laboratory examination of sputum showed pneumococcus Type I.

"Serum treatment was instituted without delay. There was no history of allergy and the intradermal test for horse serum sensitivity was negative. Accordingly, the first dose of twenty cc (25,000 units) of Type I antipneumococcus serum (New York State Department of Health, was given intravenously, at 7 00 P M, November 29, presumably the day of onset. At 11 30 P M a second dose of forty cc (50,000 units) was given. Within the next few hours there followed a steady drop in temperature to 100. The pulse and respirations also dropped and the patient showed general clinical improvement. Convalescence was uneventful and recovery complete."

Dr MacDonald's case illustrates what might be termed the use of serum in the abortive treatment of pneumonia. It can, perhaps, be argued that the diagnosis was not completely established because of the scarcity of physical signs and the lack of x-ray confirmation. That this might have been merely an acute respiratory infection which would have run such an abortive course without serum treatment can not be denied. However, on the basis of the data submitted alone it can be stated that excellent clinical judgment was used and that the burden of proof would lie with the one who claimed that it was not pneumonia.

To examine the evidence at hand, the sequence—operation upper respiratory symptoms, and sudden fever—must place pneumonia near the top of the list of diagnoses

to be considered. Fever following any operative procedure and especially a mastoidectomy is not, of itself, of great differential value and other possible septic complications would have to be thought of. Nevertheless, the acute respiratory symptoms and especially the rapid rate are, under such circumstances, highly suggestive of pneumonia. Occasional rales at the base of a lung are treacherous and may or may not be of significance. We need more information about them, which presumably Dr MacDonald had. We may assume that they were constant and newly developed. The presumptive diagnosis of pneumonia in this case, however, could probably have been made even with a total absence of physical signs in the chest.

Middle ear infection is not infrequently encountered as a so-called complication of pneumonia, especially in children. Usually the micro-organism causing the two infections is identical. In adults, and possibly in children more frequently than is realized, the relationship is often reversed and the middle ear infection precedes the pneumonia as apparently occurred in this case.

The laboratory report of Type I pneumococcus is most highly significant and in this instance may be taken as strong confirmation of the diagnosis of pneumonia. Its significance lies in the fact that this micro-organism has been shown to be an extremely infrequent inhabitant of the mouth and throat other than in connection with pneumonia due to it. There are normal carriers of Type I pneumococci, principally persons who have had recent intimate contact with a case, but this particular type of pneumococcus has been demonstrated only to occur in approximately half of one per cent of the general population who have not had such contact. Therefore, the mathematical chance of finding a normal carrier of Type I pneumococci, who presents symptoms suggestive of pneumonia, is so slight that this combination would seem to more than justify a positive diagnosis and prompt serum treatment.

With respect to the amount of serum given it is worth pointing out, as illustrated in this case, that in general the earlier serum is administered the less is required to produce and maintain a favorable response.

COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

From the sub-committee on Child Hygiene, of which Dr Edward J Wynkoop of Syracuse is chairman and whose two other members are Dr Leo F Schiff of Plattsburg and Dr Oliver W H Mitchell of Syracuse comes information in the form of a letter from the Commissioner of Health of the State of New York. Dr Edward S Godfrey, Jr. It was in answer to a query from the sub-committee

December 17, 1935

Dr Edward J Wynkoop, Chairman,
Sub-committee on Child Hygiene,
State Medical Society,
501 James St.,
Syracuse, New York.

My dear Dr Wynkoop

I have your letter of the 10th inquiring as to the provisions of the Social Security Act for maternal and child welfare services

The annual amount available to the State of New York is \$173,386 which must be matched dollar for dollar by State funds, expended for the same purpose

These funds are allotted to the State Department of Health as the State Administering Agency, through its Division of Maternity, Infancy and Child Hygiene.

The purposes for which these funds are granted are to enable each state "to extend and improve as far as is practicable under the conditions in such state, services for promoting the health of mothers and children, especially in rural areas and in areas suffering from severe economic distress"

Matching funds may include not only the expenditures of the state for maternal and child welfare services, but those expended by local political sub-divisions for a like purpose if the work carried on is under the general supervision of the state agency, and their program brought into the state plan.

Among the requirements of the Social Security Act, the State, in its plans, must show evidence of seeking the cooperation of medical, nursing, and welfare groups and organizations. In the following synopsis of the main elements of the program it will be seen that the State Department of Health has planned very definitely to recognize the importance of this cooperation in a very realistic way

1 In order to comply with provisions of the Social Security Act requiring cooperation of the above mentioned groups, a State Advisory Council is being formed to assist the Commissioner of Health in carrying out the purposes

of the act in ways to most benefit the mothers and children of the State of New York. This Council will consist of ten members representing organized medical, dental, welfare and nursing groups

2 After consultation with the appropriate officers of the State Medical Society, a special medical committee will be organized to study and recommend to the State Department of Health, suitable measures for dealing with some of our knottiest problems, i.e., prematurity of birth, birth injuries, congenital malformations. We cannot deal intelligently or effectively with the large number of neonatal deaths until more is known of the why and wherefore of these great losses in infancy and the related factors involved in maternity

3 As plans progress, the itinerant consultations for the instruction and examination of expectant mothers and young children, conducted by state physicians will be turned over to local clinicians, as soon as practicable. For this purpose funds have been set aside for the payment of local pediatric, obstetric and dental clinicians acceptable to the county organizations

4 In cooperation with the County Medical Society, who have appointed a suitable committee, a service long desired by practicing physicians is now in operation in a northern county, on a demonstration basis, i.e., nursing assistance to the physician at delivery. This service must be coordinated with a generalized public health nursing program. Ten public health nurses will be engaged in this work, six of whom will be financed by maternal and child welfare Social Security funds

5 Twelve additional public health nurses financed in a similar manner are distributed among the different sanitary districts for county work.

6 In cooperation with the County Medical Society, in each instance, small child hygiene bureaus will be set up in three cities for the purpose of stimulating the development of an organized child hygiene program in them and in other cities by example. The great bulk of births, deaths of mothers and infants, of stillbirths and neonatal deaths, occur in the urban areas of this state. The State Department of Health should be in position to assist cities, as well as counties, in developing their health work.

7 We are not forgetting the dental organizations. A state committee has already been appointed to meet with and advise the State Commissioner of Health in the development of an effective dental hygiene program. A dentist will be added to the division staff to head a bureau

He will be expected to work with the county organizations in an effort to provide for the creation of more dental facilities and opportunities for education in mouth health, especially, for young children.

8 More knowledge of the values of foods, their economic purchase, selection, and preparation is greatly needed by a very large proportion of our population. This need is being only partially met by securing two additional nutritionists making a unit of three whose services are available to local groups for educational work.

9 Surveys and studies pertinent to the problems of maternal and child health will be made from time to time. Local county societies undertaking their own studies may call upon the division for statistical advisory assistance. This is

a new service which we hope will be used.

10 The State plan for 1937 provides for financial participation in the post-graduate courses in obstetrics and pediatrics proposed by the various county medical societies.

These are the main elements of the State Plan.

Other features may be added or some of these changed as work progresses and needs become apparent. Not all parts of a new enterprise come into being simultaneously. Activities that are promising, in terms of lives saved and health protected, must receive added support, those falling outside these criteria will need to be curtailed.

Very truly yours,

EDWARD S. GODFREY, JR.,
Commissioner of Health

Postgraduate Lecture Courses

A course on obstetrics has been scheduled for the Cattaraugus County Medical Society and will be held in the Solarium, Olean General Hospital, Olean, at 3 00 P. M.

There have been given the following lectures

January 31, "Hemorrhagic States of Pregnancy," Dr. F. C. Goldsborough, Buffalo.

February 7, "Toxemias of Pregnancy," Dr. Edward C. Hughes, Syracuse.

February 14, "Complications of Pregnancy: Heart Disease, Tuberculosis, and Diabetes," Dr. Louis A. Siegel, Buffalo.

There will be given on dates noted these further lectures of the course

February 21, "Delivery Room Problem," Dr. Francis R. Irving, Syracuse.

February 28, "Maternal Welfare," Dr. F. J. Schoeneck, Syracuse.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title *Your Health*. The theme for 1936-37 differs slightly from the topic in the first series, which was "medical emergencies and how they are met." The new series is built around the central idea that "100,000 American physicians in great cities and tiny villages, who are members of the American Medical Association and of county and state

medical societies, stand ready, day and night, to serve American people in sickness and in health."

The program will go out on the Blue network instead of on the Red network, as originally announced.

The topics are announced monthly in advance in *Hygeia*, the Health Magazine, and three weeks in advance in each issue of the *J. A. M. A.* The time of the broadcast is Tuesday afternoon at 5 o'clock eastern time.

RULES FOR HANDLING A WOMAN BY ELECTRICITY

If she talks too long—Interrupter
If she wants to be an angel—Transformer
If she is picking your pockets—Detector
If she will meet you half way—Receiver
If she gets too excited—Controller
If she gets up in the air—Condenser
If she wants chocolates—Feeder
If she sings inharmoniously—Tuner

If she is out of town—Telegrapher
If she is a poor cook—Discharger
If she is too fat—Reducer
If she is wrong—Rectifier
If she gossips too much—Regulator
If she becomes upset—Reverser

—*The Locomotive*

COMMITTEE ON LEGISLATION

Bulletin No 3

January 28, 1937

The following bills have been introduced since the issuance of our last bulletin

Senate Int. 173—Kleinfeld, Assembly Int 196—McCreery, amends the Civil Practice Act, relative to taking of testimony by deposition Referred to the Codes Committees

Comment We understand that under this bill physicians called as witnesses on compensation or injury cases might submit their testimony as a deposition

Senate Int. 210—Hanley, Assembly Int 262—Wadsworth, amends the Public Welfare Law by providing no person or member of his family becoming member of State Tuberculosis Hospital in Mount Morris, Livingston County, shall gain settlement in county or town until he has resided in county for five consecutive years Referred to the Relief and Welfare Committees

Comment Livingston County asks the same protection as has been granted to a number of other counties where tuberculosis hospitals are located

Senate Int 246—Doyle, Assembly Int 275—Langenbacher, adds new article to the Public Health Law, establishing a division of food in the Health Department to investigate economical methods of preparation, value and standards for foods served for human consumption, to establish codes of fair competition for employers and employees preparing and serving foods, and appropriating \$50,000 Referred to the Finance Committee in the Senate and Ways and Means Committee in the Assembly

Comment A companion to this bill provides for the creation in the Department of Agriculture a division of foods that complements the activities deposited in the Department of Health by this bill The two are covering the provisions that are incorporated in a food bill which is now before Congress

Senate Int 259—Twomey, Assembly Int 302—Bush, Mental Hygiene Law, strikes out the specified divisions in Mental Hygiene Department and authorizes the Commissioner to establish as many divisions as he deems necessary, also to appoint one or more assistant commissioners, each of whom shall be a physician of at least five years' actual experience in institutional care of mental defectives Referred to the Finance Committee in the Senate and the Health Committee in the Assembly

Senate Int 274—McCall, adds new article

to the Tax Law, imposing a stamp tax on tobacco and tobacco products, including cigars and tobacco products generally, and for disposition of moneys from such tax for the establishment and maintenance of free dental clinics for school children Referred to the Taxation Committee

Senate Int. 298—Murray, Assembly Int 423—Neustein, authorizes New York City to establish summer vacation school camps for children in parks adjacent to city and under control of a state council of parks where study courses not exceeding ten hours a week shall be given in camp sanitation, elementary hygiene, first aid to injured, life-saving, swimming, and physical training, and authorizing city to appropriate \$5,000,000 Referred to the New York City Committees

Senate Int. 313—Feld, Assembly Int. 298—Mandel, amends the Education Law by striking out provision exempting first-class cities from requirement for medical inspection of pupils Referred to the Education Committee in the Senate and the Health Committee in the Assembly

Comment The section of the Education Law which provides for the medical inspection of school children exempts cities of the first class In New York City the function has rested with the Department of Health Mr Mandel is of the opinion that the medical examination of children is highly important and would be done more effectively if the entire responsibility rested with the Department of Education This bill simply removes the exemption

Senate Int 316—Feld, Assembly Int 312—McCaffrey, adds new Article 51-a to the Education Law, for licensing clinical laboratory technicians, setting up standards of education, and rules for advisory council and examining board in Department of Registration under the Board of Regents Referred to the Education Committees

Comment You will recall that there have been efforts made in previous years to license technicians, which we have opposed on the ground largely that it is difficult to define a technician This bill on first reading does not seem to have adjusted that difficulty If any of the bulletin readers are particularly interested in reading the printed bill, we shall be glad to send them a copy

Senate Int. 358—Esquirol, repeals Art. 52, adds new Art 52, Education Law, providing for the licensing of registered nurses and nursing aides by board of three or more examiners, and making general rules and regulations in connection therewith Re-

ferred to the General Laws Committee.

Comment This is one of the three bills which we understand are to be introduced this year affecting the licensure of registered nurses. This bill was prepared by the New York State Nurses' Association in conjunction with the Department of Education. It has been reviewed by the Subcommittee on Nursing of our Committee on Public Health and Medical Education. If you are interested and wish to read the bill, we shall be glad to send you a copy.

Assembly Int. 260—Sutor, adds new article to the Vehicle and Traffic Law for care of indigent persons suffering from motor vehicle injuries in hospitals not organized for profit and registered by State Health Department, per diem cost not to exceed \$6.00 a day, and appropriating \$350,000. Referred to the Ways and Means Committee.

Comment Mr Sutor introduced this bill at the close of last year's session, too late for consideration. It is framed along the lines of an Ohio law. Conditions under which hospitals are financed differ so much in the two states that probably this provision can not be applied here. At any rate, we should like to see the provision extended to protect the doctor and nurse as well as the hospital.

Assembly Int. 299—Bush, amends the Public Health Law, prohibiting persons other than licensed physicians, dentists, and veterinarians to possess or cultivate live pathogenic micro-organisms or viruses without permit from the Health Commissioner, and making other changes. Referred to the Health Committee.

Assembly Int. 311—McCaffrey, creates commission to study causes, extent, and prevention of juvenile delinquency, and appropriates \$15,000. Referred to the Ways and Means Committee.

Assembly Int. 327—Jarema, amends the Domestic Relations Law, requiring certificate of physician on applications for marriage license to effect that contracting parties are free from any venereal or communicable disease by an examination had not more than 30 days prior to issuance of license. Referred to the Judiciary Committee.

Comment This bill carries a very broad provision. It not only would prevent the issuance of a license to persons having a venereal disease, but also any other communicable disease, as, for instance, tuberculosis. The provision that the examination may be made as long as thirty days before the time the application for license is filed, weakens the assurance that the applicants are free from the venereal diseases, at least

Assembly Int. 335—McCaffrey, amends the Workmen's Compensation Law relative to physical examination of employees by striking out provision that physician, as employee or carrier may select and pay for, may participate in examination if employee or carrier so requests. Referred to the Labor Committee.

Comment Mr McCaffrey has reintroduced the bill that he has carried for a number of years, which would prevent any other physicians from being present when physicians from the Department of Labor are examining injured employees. The object of the bill is to prevent the carrier's physician from attending the examinations, but in order to accomplish this the presence of the attending physician must also be denied. It has been submitted at legislative hearings, both by physicians and representatives of labor, that it is usually very difficult for the attending physician to be present, while the physician for the insurance carrier is ever present.

Assembly Int. 346—Andrews, amends the Public Health Law by changing designation of Social Hygiene Division to that of Syphilis Control. Referred to the Health Committee.

Comment The Department of Health desires to abandon the title "Social Hygiene" and use a more accurately descriptive term for the Division which will direct the syphilis control campaign which the State has entered into in conjunction with the Federal Government.

Assembly Int. 355—Breitbart, amends the Domestic Relations Law by prohibiting a town or city clerk from accepting application for marriage license unless accompanied by record of standard laboratory blood test. Referred to the Judiciary Committee.

Comment Mr Breitbart specifies that the examination which applicants for a marriage license shall secure from a licensed physician must include a blood test and the physician's opinion that, if infected with syphilis, they do not have it in a communicable stage. He does not require a statement regarding the existence of any other communicable disease.

Assembly Int. 365—Jarema, authorizes New York City to establish summer vacation camps for children in parks adjacent to city and under control of state council of parks, where study courses not exceeding ten hours a week shall be given in camp sanitation, elementary hygiene, first-aid to injured, life-saving, swimming, and physical training, and authorizing city to appropriate \$1,000,000. Referred to the New York City Committee.

Comment This bill differs from Senate Int 298 and Assembly Int 423 only by authorizing an appropriation of \$1,000,000 instead of \$5,000,000

Assembly Int 370—McCaffrey, repeals Art 52, adds new Art 52, Education Law, providing for the license of registered nurses by a board of seven examiners, two to be nominated by State Nurses' Association, requiring registration fee of \$10 00, and making general rules and regulations in connection therewith Referred to the Education Committee

Comment This is one of three bills which we understand are to be introduced this year relating to the licensure of nurses If you are interested in this bill, we shall be glad to send you a copy

Assembly Int. 471—E S Moran, adds new section to the Education Law for issuing permanent injunction against illegal practice of a profession. Referred to the Education Committee

Comment The Attorney General's office tried to prevent a chiropractor from treating sick people by enjoining him on the ground that he was not licensed to do that work, but under our laws at present there was difficulty in securing such an injunction This bill was introduced last year but too near the close of the session to receive proper consideration

Assembly Int 476—Turshen, amends the

Vehicle and Traffic Law, requiring applicant for operator's or chauffeur's license to furnish medical certificate of physical ability to operate motor vehicle, renewal to be withheld unless there is an examination for ear, hearing and general health test at least once in five years, also permitting commissioner to provide space on license for recording convictions Referred to the Motor Vehicles Committee

Assembly Int 485—Brownell, adds new sections 334-a, b, c, Public Health Law, requiring persons employed in places licensed to sell food or drink, to have a food handler's certificate issued annually by State Health Department, or in New York City by City Health Department, to effect that such person is free from a communicable disease Referred to the Health Committee

Assembly Int 503—Fite, adds new section to the General Municipal Law requiring city or town in which parents or mother reside to pay \$75 00 toward expense in child-bearing, payments first to be made to hospital and balance, if any, to be paid to parents for expense, and unexpended balance to city or town for a continuing fund Referred to the Cities Committee.

HOMER L. NELMS
JAMES L. GALLAGHER
B WALLACE HAMILTON
JOHN J MASTERTSON
LEO F SIMPSON

FRACTURE DAY

"Fracture Day" under the auspices of the New York and Brooklyn Regional Fracture Committee of the American College of Surgeons will be held February 26, 9 30 A M to 4 30 P M, at the New York Academy of Medicine, and will be open to every one interested in fracture treatment

Luncheon can be obtained at a nominal price Kindly notify the Secretary, Herbert M Bergamini M D, 101 East 89 St New York City, before February 20, if you expect to have luncheon at the Academy Partial program follows

'The Committee on Fractures," Dr Frederic W Bancroft
'The Aims and Accomplishments of the Regional Committee" Dr Fenwick Beekman
'Fixed Traction Transportation" Dr Robert H Kennedy
'Occupational Therapy" (motion pictures), Dr Joseph Tenoppy

"The Value of Follow-up Clinics," Dr S Potter Bartley

"Problems in Children," Dr James R Lincoln

"Fracture of the Lateral Condyle of the Humerus in Children" Dr Philip D Wilson

"The Treatment of Radial Head Fractures," Dr Clay Ray Murray

"Unusual Case of Multiple Fractures," Dr Chester L Davidson

"Fracture of Both Astragali Bilateral Astraglectomy," Dr George B Reitz

"A Method of Reduction and Retention in Forearm Fractures," Dr F C Courten

"Compression Fracture of Spine Treated by Automobile Jack Decompression," Dr Otho C Hudson

"Deformity of the Wrist Following Resection of the Radial Head" Dr Raymond W Lewis and Dr A A. Thibodeau

"Fractures and Dislocations of the Cervical Spine," Dr Archie M Baker

"Anesthetic Procedures in the Treatment of Fractures," Dr E. A Rovenstine

Economics

The annual dinner of the Faculty Association of the New York Post-Graduate Medical School and Hospital was held January 23 at the Hotel Biltmore in New York City with some five hundred members of the professional staff and their guests in attendance. Dr Clarence G Bandler, President of the Faculty Association, presided.

Organized medicine was the keynote of the address which followed the dinner and participating in the program were men outstanding for their contributions along this line. The subject is particularly pertinent at the moment, since the Federal Government has so recently intimated that the organized medical profession may be called upon to help solve some of the nation's growing problems of public health and public welfare, and was selected, according to Dr Bandler, with a view to rallying the profession to a realization of the responsibilities and opportunities now before them.

Dr Charles Gordon Heyd, President of the American Medical Association, declared opposition to all compulsory health insurance schemes and gave a statement of the principles that organized medicine will accept and those it will oppose. Following closely upon President Roosevelt's recent message to Congress, in which he recommended the creation of a Department of Public Welfare, this statement had special significance in view of the fact that Dr Heyd, as president of the American Medical Association, is speaking for some 103,000 members of the profession across the country. He said, in part:

The outstanding defect of voluntary or compulsory health insurance is that it divides the practice of medicine into a class practice and the measure of effectiveness of the medical service is dependent upon the economic status of the patient. There is thus created a superior type of medical service for the well-to-do, and a substandard type for those in the lower economic brackets. The practice of medicine in the lower economic group becomes largely a prescription practice—a brief visit to the doctor, an inadequate, scant history, and a prescription or the dispensing of a bottle of medicine. One of the most tremendous steps

in the practice of medicine in America is that it has become a diagnostic practice, a practice based upon a complete physical examination, scientific laboratory determinations and the direct opposite of a prescription form of medical practice.

Organized medicine has improved medical standards and medical education. Improvements in medical education and the measures for protecting the community from inferior practitioners have arisen from within organized medicine. The organized medical profession, as represented by the American Medical Association, has brought about a reduction in the number of medical schools from one hundred sixty-five to sixty-seven, and succeeded in obtaining an almost uniform pre-medical curriculum, has surveyed and approved hospitals throughout the United States, has listed hospitals for the training of internes and resident internes, has promulgated a code of ethics for the protection of the public, has established certification boards for the examination and registration of those seeking to be specialists in all the major branches of medicine.

We believe (1) that all features of medical service in any method of medical practice should be under control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

(2) That no third party should be permitted to come between the patient and his physician in any medical relation. All the responsibility for the character of medical service must be borne by the profession.

(3) That patients must have absolute freedom to choose a doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

(4) That in whatever way the cost of medical service may be distributed, it should be paid for by the patient in accordance with his means and in a manner that is mutually satisfactory.

(5) That medical service must have no connection with any indemnity cash benefits.

The insurance principle as applied to human sickness is acceptable only in buying hospital lodging and accommodations, food, and general nursing care. The insurance principle applied to the employment of professional services will fail because there is inherent in it defects that depend upon the variability of human beings. Medical service is not a mechanical gadget that

can be fabricated. Medical service is the relationship of a doctor and a patient, and both are animated human individuals, both equipped with their own personal psychology and the character of the medical service rendered is the application of scientific knowledge plus certain intangibles to the patient's medical problem. This is not an insurance proposition that can be calculated or estimated upon an actuarial basis.

Human nature being what it is, the adoption of the insurance principle for medical services puts a premium on malingering and extension of days of illness. The average loss of time to a workman in the United States by illness is six and one-half days, in Germany under the *Krankenkasse*, thirteen days, and in England under the Panel System, eleven and one-half days. The expense of administration of sickness insurance in England amounts to over one-half of the total amount paid to the physicians, and the number of non-medical workers in Germany is greater than the total number of physicians doing the medical work.

No patient should have cash benefits for being sick. Is it reasonable to suppose that a man, being sick, not working, in a hospital, being supplied with physical accommodations, food and attention, and \$4.00 day while sick, will be anxious to return to work?

It has been estimated that to provide a comparable medical service, as exists today, on a government insurance basis, would require ten to fourteen per cent of the payroll.

We believe it is essential that the following conditions be made paramount in the consideration of medical services: (1) the maintenance of the voluntary hospital system, (2) the advance of medical science and the increasing ability of scientific medicine to serve the public in health and in disease have created new problems of medical service and medical costs. In the past, the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and service. Nevertheless, the advances of medical science have created situations in which a group of the population, neither wholly indigent nor fully competent financially, find themselves under some circumstances unable to meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all of those unable to pay either in whole or in part. Members of the medical profession, locally, and in the various states, are ready and willing to consider other ways and means for meeting the

problems of providing medical service, and diagnostic laboratory facilities for all requiring such service, and not able to meet the full cost thereof. These are financial and administrative problems of local and state administration primarily, rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situations.

(3) Certification of indigents, fairly, sincerely, honestly and sympathetically by the application of standards of eligibility, by central bureaus under the Department of Welfare, with proper representation from the County Medical Society. It should not be the function of the out-patient departments to pass upon the validity of indigents nor should they admit for free services those who are not in truth indigents.

(4) The complete financial separation of the free out-patient departments of hospitals from the private or pay services of the hospital.

(5) Limitation of the number of patients that may attend any one clinic.

(6) Census of the indigents—to learn what the load is and how to take care of it. There should be devised a positive means of identification to prevent padding of the lists.

(7) The desirability of establishing a diagnostic laboratory service in chemistry, bacteriology and pathology for the practitioners. These laboratories to be established on a regional or geographical basis. The service to be for physicians only, and without cost. No treatment in any form to be provided under this setup.

(8) Recognizing that committees of the Senate and of the House of Representatives of the United States Government and a special committee appointed by the President are at this time concerning themselves with the reorganization of Government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to the Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of Governmental activities in the executive branches, and recognizing moreover the great desirability that all activities of the Federal Government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association recommends that such health activities as now exist be so consolidated, which should not, however, be subservient to any other charitable, conservatory, or other Governmental interest.

It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the Government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of Governmental health activities, but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration.

(9) Unequivocal opposition to all forms of compulsory health insurance. Insurance schemes tend to relieve the individual of his own responsibility and to increase the prolongation of illness. In short, under an insurance scheme it is profitable for an individual to be sick.

The medical profession "does not rely on endowment, but on its own exertions directed to meeting human wants. There is no great profession which has so little to say to the public purse, and which so moderately and modestly dips its hand into that purse. It is not only in the interest of the public, but of the profession itself, that it is eminently self-supporting, and, rely upon it, that the principle of self-support does much to maintain its honour and independence, and to enable it to pursue its stately march in the times that have come and in the times that are coming, to form its own convictions, to act upon its own principles without fear or favour, for the general benefit of mankind.

Dr Bandler in his introductory remarks announced the two-fold nature of the evening's program, the desire of the Faculty Association to honor Dr Henry Dwight Chapin who, as Professor of Pediatrics at The New York Post-Graduate Medical School and Hospital, for over fifty of his eighty years had untiringly devoted himself to that institution, and also to recount some of the accomplishments of the other members of the professional staff in the larger field of organized medicine. Of Dr Chapin he said "Dr Chapin has not only contributed to the upbuilding of an outstanding pediatric department but he has demonstrated a most unusual ability as an organizer in medicine. The establishment in our institution of the first hospital social service department in this country and the development of the Speedwell Society were the

products of Dr Chapin's fertile brain. The success of these and other outstanding sociologic organizations is due entirely to his continuous efforts and his great capacity for leadership."

Dr Arthur F Chace, President of the New York Post-Graduate Medical School and Hospital, in his address, spoke of Dr Chapin as an organizer in medicine. He said, "Medicine organizes so that it may more efficiently serve the community. Dr Chapin, individually and in cooperation with organized medicine, has served this community for five decades, efficiently, faithfully and so modestly that few realize the magnitude of his accomplishments—each year widening the scope of his energies and activities, until now he may well be called the "Dean of Social Service."

Dr Adolph G De Banctis, President of the New York County Medical Society, and Professor of Pediatrics in the New York Post-Graduate School, presented a silver loving cup to Dr Chapin on behalf of the Faculty Association, and spoke of his work as a pediatrician. He said in part

The name of Henry Dwight Chapin is synonymous with the growth of pediatrics. In the early part of the century pediatrics was a minor part of medicine, today it is a major specialty, and to Dr Chapin should go a great deal of credit for this. He is a charter member of the American Pediatric Society and one of its ex-presidents. For ten years he was president of the Children's Welfare Federation and started during that time a bureau for the distribution of mother's milk for premature babies. In 1933 Columbia University awarded him a medal for outstanding contributions to problems on child welfare.

Dr Chapin's contributions to pediatrics have been numerous and of a real and permanent value. The more important are a book of (1) "Diseases of Children" with Pisch and, later, with Royster, which has gone through three editions, (2) Acidosis of Intestinal origin, (3) Invention of the Chapin Dipper, and (4) Studies of Infant Feeding. Dr Chapin has trained many physicians in pediatrics—not a few of whom today occupy prominent positions in pediatrics. I have known Dr Chapin for over twenty years and I regard him as one of the most brilliant pediatric teachers and one of the soundest clinicians I have ever met.

The second part of the program dealt with the subject of organized medicine and the speakers of the evening were Dr Frederic E Sondern, former president of

the New York Post-Graduate Medical School and Hospital and most recent past-president of the New York State Medical Society, whose topic was "Organized Medicine and Post-graduate Medical Education," Dr Walter T Dannreuther, former president of the New York County Medical Society, and Professor of Gynecology at the Post-Graduate Medical School, who spoke on "Organized Medicine in Retrospect," and Dr Charles Gordon Heyd,

President of the American Medical Association, and professor and former director of surgery at the New York Post-Graduate

Dr Dannreuther scored the medical profession for not getting further in organized medicine and said, "Organized medicine is the logical trustee of society and the care of the public health. It must be militant but not arbitrary, positive but judicious and protective to the medical profession and zealous in behalf of the public welfare."

ALUMNI DAY MEDICAL PROGRAM

The New York University College of Medicine Alumni Association has announced through James W Smith, M.D., Secretary of the Committees on Science, Education and Entertainment, that Alumni Day will be celebrated February 20. The program is as follows:

9 45-10 00 A.M.

New Building, 28th Street and First Avenue

1 Opening remarks, Robert P Wadhams, '06, President Alumni Association.

2 Introduction, Albert A Epstein, '05, Chairman, Committee on Science and Education

10 A.M.-12 30 P.M.

1 Experience with Protamine Insulin, Elaine P Ralli, '25, Assistant Professor of Medicine

2 Diabetes as a Complication of Pregnancy, William E Studdiford, '22, Professor of Obstetrics and Gynecology

3 Diabetes in Childhood, Katharine G Dodge, Instructor in Pediatrics

4 Cardiac Complications of Diabetes, John Wyckoff, '07, Professor of Medicine

5 The Eye in Diabetes, Edward B Gresser, '22, Assistant Professor of Ophthalmology

6 Neural Complications of Diabetes, E David Friedman, '07, Professor of Neurology

Demonstrations and Exhibits, morning and afternoon, Pathological Specimens, Robert J Carlisle Memorial Exhibit, Display of books from College Library, Roentgenological Exhibit—I Seth Hirsch, Professor of Radiology

Luncheon 1 00-2 00 P.M.

Student's Lounge, 26th Street and First Avenue

Addresses of Welcome, Dean Emeritus Samuel A Brown, '94, William M Patterson, '94L, Chairman, N.Y.U. Alumni Fund, Dean John Wyckoff, '07 2 30-5 00 P.M. New Building, 28th Street and First Avenue

7 Important Aspects of Surgery in the Diabetic, Arthur Wright, Professor of Surgery, Samuel Standard, '24, Assistant Clinical Professor of Surgery

8 Anesthesia in Diabetes, Emery A Royenstine, Assistant Professor of Surgery in charge of Anesthesia

9 Preventive Treatment of Diabetic Gangrene as Carried Out in a Medical Clinic, Harold Brandaleone, '31, Assistant in Medicine

10 Pathological Findings in Diabetes, Irving Graef, Associate Professor of Pathology

5 15-6 15 P.M., Social Hour with Dean Wyckoff, Dean's Office, 28th Street Building

Informal Alumni Dinner and Entertainment, 7 00 P.M. Leo L Michel, '99, *Master of Ceremonies* Hotel Roosevelt, Madison Avenue at 45th Street

Physicians may be divided into two classes only: those who are learning and those who are forgetting: there is no third class.—Henry A Christian, M.D.

"What shall I do?" wailed the sweet young thing. "I am engaged to a man who just simply cannot bear children."

"Well," remarked the kindly old lady, "you mustn't expect too much of a husband!"—*Nebr S M Jour*

"Did you say the man was shot in the woods, doctor?"

"No, I said he was shot in the lumbar region!"—*Nebr S M Jour*

THE PHYSICIANS' HOME

A total of 208 sustaining members of the Physicians' Home has been received as a result of the effort which has been made during the last few months to impress upon physicians of the state the need to care for distressed and worthy members of the profession

Dr Charles Gordon Heyd, president of the Home, makes the announcement that the institution is now on a self-supporting basis, but that funds are still inadequate for the purposes which the board of directors have in view an adequate endowment which will allow building a permanent home to meet the requirements of the situation in New York State, where approximately 15,000 physicians are members of the Medical Society of the State of New York The response, so far, states Dr Heyd, is encouraging to the board of directors, and the efforts to augment the fund are to be continued

A number of county medical societies are making contributions to the endowment

The president is in receipt of a letter from a physician, formerly a resident of New York State for fifty-five years, who has now retired and is living in his native state The writer says

"When one considers the enormous amount of gratuitous work done by physicians it seems astounding that so little generosity is extended to those of the profession who have been superannuated and who at times are in actual want 'Man's inhumanity to man' might aptly be quoted, but I hope and must believe that concerted action by the newly constructed board of directors, may induce many who really know little or nothing

about the Physicians' Home to assist in so worthy an object as easing the last days of these benefactors of humanity Un fortunately the lay public holds to the opinion that physicians are always prosperous, that they are excessive in charges for service, and are really no more deserving than others of the human family They know little concerning the pedestal to which men of medicine have been elevated by great writers of all ages, and despite such praise it seems difficult to interest even our own profession in the men who so often have devoted a lifetime to the well-being of their fellows

"Having provided for my own terminal needs, I shall never have to appeal to the Home, as a beneficiary, but proud of my profession, I feel deeply the needs of those members who have become dependent. May your efforts and those of your board meet success and may you establish a *real* refuge for worn-out members of the greatest profession on earth "

The Home is now prepared to accept a few more guests

Doctors are asked to make the check payable to the Physicians' Home and mail it to Dr B Wallace Hamilton, treasurer, 52 East 66 Street, New York City

Annual Member, \$10 or more, Sustaining Member, \$100 to \$1,000, Life Member, \$1,000 to \$5,000, Patron, \$5,000 to \$10,000, Benefactor, \$10,000 or more

Officers of the Physicians' Home include Dr Charles Gordon Heyd, president, Dr Warren Coleman, 1st vice-president, Dr Silas F Hallock, 2d vice-president, Dr B Wallace Hamilton, treasurer, and Dr Joseph J Eller, secretary

As houses well stored with provisions are likely to be full of mice, so the bodies of

those that eat much are full of diseases—
Diogenes

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings to this department one month in advance, for the information of members who may be interested

Albany County

THE JANUARY MEETING of the Medical Society of the County of Albany was held in the Auditorium of the Albany College of Pharmacy, January 27. The scientific program "Recent Concepts of Treatment of Acute and Chronic Arthritis," by Dr. R. Garfield Snyder, F.A.C.P., Chief of the Arthritis Service, Hospital for Ruptured and Crippled, New York City. Discussion was opened by Dr. L. Whittington Gorham.

Chenango County

DR. EARL W. WILCOX, of Norwich, a past president of the Chenango Medical Society, died on Jan. 6. He was sixty-four.

Columbia County

DR. HENRY J. NOERLING, of Valatie, has been elected president of the Columbia County Board of Health.

Dutchess County

DR. HOWARD P. CARPENTER, deputy county medical examiner and pathologist at the Hudson River State hospital, was elected secretary-treasurer of the Dutchess County Medical Society for his twenty-second term when members convened in annual session at St. Francis' hospital on Jan. 13.

Dr. Chester O. Davison was elected president of the society, Dr. Harry E. Storrs of the Wassauc State hospital, vice president, Dr. John F. Rogers, associate secretary, Dr. Alva L. Peckham, Dr. E. F. Powell, and Dr. James J. Toomey, censors, Dr. Aaron Sobel, delegate to the state society, Dr. Samuel Appel, county medical examiner, alternate, and Mayor Spratt, counselor.

Guest speaker at the meeting was Dr. Frank Lahey, surgeon of Boston, Mass., who gave an interesting talk on diseases of the gall bladder. Prior to the meeting he was guest at a dinner given by officers of the society at the Amrita club.

Erie County

DR. ALFRED W. BAYLISS, of Buffalo, who died on Jan. 11 at the age of eighty-two, was

one of the first radiologists in Western New York. He studied electrotherapy and radiology in New York, Philadelphia, London, Heidelberg, and Paris.

Jefferson County

THE JEFFERSON COUNTY Medical Society met on Jan. 14 at the Black River Valley club. The program was a comprehensive discussion of the medical economic situation, together with compensation work. The speaker was Dr. Frederick S. Wetherell, a member of the committee on economics of the state medical society. He spoke on "A Survey of the Medical Economic Situation."

Kings County

SOUTH BROOKLYN DOCTORS have embarked on their own campaign to thwart spread of influenza and other respiratory diseases such as common cold, pneumonia and tuberculosis.

They have opened a school at Prospect Branch of the Y.M.C.A., 357 9th St., at which storekeepers are taught, free of charge, rudiments of hygiene and sterilization. Classes have begun under direction of Dr. P. J. Imperato, member of the South Brooklyn Medical Society, and any food-handler will be welcomed as a student and recruit in the war against sickness.

The idea for such instruction followed a series of special studies by the society. Despite stringent city laws diseases are still being transferred from sick to healthy persons in ice cream parlors, lunchrooms and candy stores where glasses, dishes and utensils are not sterilized.

Dr. Imperato explains:

"We believe that the majority of men and women behind the counters, although not deliberately careless, have never been taught how to sterilize or even thoroughly cleanse the articles and do not know the fundamental principles of hygiene or anything about germs and their transmission by unclean utensils."

AT A MEETING OF THE Woman's Auxiliary of the Medical Society of the County of Kings on Jan. 12, Dr. Paul C. Eschweiler was the guest speaker. Mrs. Kenneth J. Hollinshead spoke on the "Value of the

Visiting Nurse" After the discussion Mrs Edwin A Griffin, president, presided at the tea table

IT IS HOPED to continue the "movie clinics" that were started by the Kings County Society last year, and the committee, in an appeal, "asks the clinicians of Brooklyn to send in movies of diagnostic value which can be used singly or in combination" Over 200 members have expressed interest in a new series

THE SPRING SERIES of Friday afternoon lectures is now under way at the MacNaughton Auditorium On March 5 at 4 30 Dr Ernest E Boas of New York City will talk on the "Home Medical Care of the Chronic Sick" Dr Boas is a member of the Welfare Council of the City of New York

Dr Frederick S Wetherell will be the speaker on March 12 He will present "Care of Hand Injuries by the Family Physician" In view of the new compensation law, Dr Wetherell's talk should be of special value

There will be seven additional lectures in this Spring Series

Monroe County

A GAIT MEASURING device developed at the University of Rochester School of Medicine has brought the gold award of the American Academy of Orthopedic Surgeons to Dr R Plato Schwartz and his associates Known as an electro-basograph, it is an instrument to detect irregularities in the gait of a subject as he walks across a platform, and aids in studying deviations from a normal stride that may indicate the presence of brain tumors

BETWEEN 400 AND 500 Rochester medical men attended a special meeting of the Medical Society on Jan 13 to hear Dr Raymond Aloysius Vonderlehr, assistant surgeon general of the United States Public Health Bureau, on the nation-wide campaign to eradicate anti-social diseases Lectures on laboratory diagnosis and fever therapy, accompanied by motion pictures, were given at the meeting Dr Vonderlehr spent the day conferring with interested local physicians

Nassau County

CALLING ATTENTION to the fact that two-thirds of the school children in Nassau county are now protected against diphtheria, the Nassau County Medical Society states in its news bulletin that the profession

should be highly gratified with the "spectacular" record during the eight year drive conducted by the physicians

The article points out that in 1928 when the program was begun 208 cases of diphtheria were reported in the county with twelve deaths In 1934 the lowest point was reached when twenty-two cases and one death were reported

New York County

DR. ISIDORE WENGRAF, sixty-two, physician for fake accident claim ring, was sentenced to thirty days in the Workhouse in Special Sessions on Jan 13 He pleaded guilty to conspiracy to commit grand larceny on Dec 17 Dr Wengraf was alleged to have issued medical certificates of injury in thirty-five cases He was an employee of the Board of Health for twenty-two years In passing sentence on the physician, the court said it was showing consideration for his age and length of service with the Board of Health

Oneida County

DR WILLIAM HALE JR was elected president of the Oneida County Medical Society to succeed Dr Dan Mellen at the annual meeting in Utica on Jan 12 Dr Hale served as secretary of the organization for fourteen years

Other officers named are Dr H N Squier, vice-president, Dr James I Farrell, secretary, Dr H D MacFarland, treasurer, Dr T Wood Clarke, librarian

On the board of censors are Drs Mellen, W N Roemer, F J Rossi, Paul P Gregory, and J B Lawler Delegates chosen to the state society are Drs Hale and E. E. Powers, alternates, Drs M D Graham and A F Gaffney

Dr Mellen read a paper on the life of Louis Pasteur, Dr James E Gage reported on the Workmen's Compensation Board and Dr F M Miller on the Workmen's Compensation Arbitration Board

The county society was complimented by Dr Joseph Lawrence, on co-operating in the Institute for Public Education on Syphilis Control to be conducted He also reviewed legislation and said the public is becoming better educated along medical lines

Onondaga County

RESPONSIBILITY FOR THE TASK of reducing the county's high maternal mortality rate was placed jointly before physicians and public as Onondaga County's maternal wel-

fare campaign got under way. The drive was launched at a dinner meeting in Hotel Syracuse on Jan 13 when widely known physicians called on public support of the drive to lower the national death rate through wide publicity, educational programs, establishment of pre-natal clinics and hospital residencies. Sponsored by the maternal welfare committee of the Onondaga Medical Society, the meeting was attended by several hundred doctors and men and women of the county, who pledged their support of the drive.

Ontario County

FORTY-EIGHT MEMBERS and guests of the Ontario County Medical Society met on Jan 12 in Thompson Memorial Hospital for the first quarterly meeting of the year. Dr C W Grove, new president, conducted the business session, which was followed by a turkey dinner and the program. Dr Arthur Hilton Paine gave the address on "Hematuria." Announcement was made that the Geneva doctors would be hosts at the next meeting, April 13.

Queens County

THE PROGRAM of the Medical Society of the County of Queens, on January 26, included "The Operation of the Compensation Law" by Elmer F Andrews, Industrial Commissioner of the Department of Labor of the State. "Coordination of the Workmen's Compensation Law with the Practice of Medicine," by David J Kaliski, M D, Chairman, Committee on Workmen's Compensation of the Medical Society of the State of New York. "The Practical Application of the Workmen's Compensation Law," by Joseph Wrana, M D, Chairman, Workmen's Compensation Committee of the Medical Society of the County of Queens, Inc.

Rensselaer County

THE RENSSELAER COUNTY Medical Society began its 1937 program of scientific and social meetings on Jan 12 at the Health Center at Troy with Dr Stephen H Curtis, the new president, in charge. Several papers dealing with interesting cases were read. Dr C F Kivlin presented a report on "A Case of Hematocele of the Cervix." Another rare case of "Double Kidney" was reported upon and illustrated by Drs. H P Howd and D E Rowan. Dr W B D Van Aulen, retiring president, gave an address on "Economic Problems in Medicine." Forum discussions were conducted after each scientific paper.

Rockland County

THE WOMAN'S AUXILIARY of the Rockland County Medical Society held its fourth meeting, a luncheon meeting, at the Woman's Club in Suffern on Jan 13. Mrs S W S Toms of Nyack, president of the organization, welcomed the new members. Mrs J K Pettit of Thiells invited the women to hold their next meeting at Letchworth Village on Wednesday, March 10.

Schenectady County

DR WILLIAM C TREDER, Schenectady county coroner since 1921 and health officer of Glenville for the past twenty-four years, was named commissioner of public health of Schenectady on Jan 15 by City Manager Leroy C Purdy. The appointment requires the full time of the incumbent and carries a salary of \$7,000.

Sullivan County

DR B P STIVELMAN of New York City addressed the society on "Clinical Manifestation of Pulmonary Neoplasm," at the last meeting, January 20.

The next meeting is scheduled to be held in the Lenape Hotel in Liberty on February 24 at 8 30 P M. At that time Dr Edward S Rogers, Director, Bureau of Pneumonia Control, New York State Department of Health, will talk to the society.

Arrangements of a Postgraduate course in Orthopedic Surgery under the direction of Dr Leo B Mayer for the months of March and April have been completed.

Washington County

DR DENVER M VICKERS, Secretary, reports that on January 14 there was held at the Mary McClellan Hospital at Cambridge, a combined meeting of the staff of the hospital, and the quarterly meeting of the Washington County Medical Society. The first speaker was Dr Bradley L Coley of New York City, son of the late William B Coley, long associated with the hospital. Dr Coley spoke on "The Diagnosis and Treatment of Hernia."

Westchester County

THE MEDICAL SOCIETY of the County of Westchester adopted a resolution at its meeting on Jan 19 urging the American Medical Association to set up a public relations department to combat efforts to establish compulsory health insurance.

Hospital News

Injurious Effects of Hospital Lotteries

HOSPITAL LOTTERIES HAVE BEEN exhaustively investigated by a commission appointed by the government of South Australia, and the conclusion reached is that such lotteries exploit the gullibility of the public, demoralize governments, and do not help reduce the government expenditure for hospitals to any real extent. The commission secured all possible information about such lotteries now operating in New South Wales, Queensland, Tasmania, Ireland, France, and other countries, and has made its report, which is summarized in a letter to the *A.M.A. Journal*.

The commission gained the definite impression that lotteries conducted on the lines of those of New South Wales, Queensland and Tasmania tend to become the masters rather than the servants of the government that "controls" them. The commission considered that the state of affairs tends to demoralize governments. After full and careful investigation the commission satisfied itself that the lottery does not and cannot solve the hospital finance problem. Even in Ireland the immense Irish sweep has not relieved the government or the local authorities of their hospital obligations, and in Western Australia and in Queensland lotteries have not helped the government to any material extent. The existence of lotteries in four of the six Australian states, and the seeming benefits derived from them, give an impression that a lottery is desirable. After thorough investigation, however, the commission is satisfied that these benefits are more superficial than real.

Some reasons why lotteries do not relieve the government financial expenditure are

that the great publicity makes the people "hospital minded," and they demand more accommodation, more hospitals, and better buildings and equipment, while at the same time the people who formerly gave money to hospitals stop their contributions as no longer needed. Thus in fact "the ultimate burden is likely to be increased by the existence of a lottery."

And what is worse, "everywhere the lottery is an exploitation of the gullibility of the public and the widespread gambling instinct." The commission concluded that a lottery as a form of hospital finance provides an unstable method that is demoralizing to the government, distinctly injurious to traders and detrimental in the end to the poorer sections of the community, who contribute the bulk of the receipts. If the people who buy lottery tickets can easily afford the money, they can afford to pay their share of the direct taxation necessary to support hospitals. If they cannot afford the money, the state should not take their money. From the establishment of the "golden casket" in Queensland nearly twenty years ago the total receipts amounted to £12,000,000, the prize money amounted to £7,000,000 and the sum paid to hospitals and charities after payment of expenses was £3,000,000. These figures confirm the commission in its belief that the lottery does not and cannot solve the hospital finance problem and consequently it was recommended that the practice should not be permitted in South Australia.

Air-Conditioned Operating Rooms

AIR-CONDITIONING "IS INDEED a godsend," is the conclusion of a southern medical editor after a year's experience. He writes about it in *Southern Medicine and Surgery* and tells what it has done in a hospital at Columbia, S. C. As we read

In midsummer of last year [1935] air-conditioning was installed in the operating rooms of the Columbia Hospital. After a year's experience one should have a definite impression of its benefits and of its disadvantages, if any. The sterilizing room is immediately between the

two major operating rooms on the top floor and is without a hood or overhead vent for the hot air and escaping steam, although there is an outside window. The operating rooms have large skylights through which the hot summer sun shines. Neither the sterilizing room nor the operating rooms have adequate through-and-through ventilation, so the humidity is even more of a problem than the heat. So it comes to pass that, with an outside temperature of 100° F., the working conditions in the operating room are almost unbearable.

Air-conditioning, as here used, shall be con

sidered as it affects the patient, the surgeon, and the operating room nurses. With the temperature of the operating room uniformly kept at 80° F the patient experiences an exhilaration on entering, sweating stops, respirations are deeper and slower. The skin through which the incision is made is dry so that the antiseptic preparation is more effective, it stays dry during the operation so that aseptic technic can be better preserved. A local internist at first thought that pneumonia might be caused by the sudden entrance of a lightly clad patient already ill and with poor resistance into an atmosphere 20° F less than that to which he had been accustomed. He thought that shock might be greater because of the lowered temperature. Experience has proved both fears groundless. On the contrary, the patient seems to get increased vitality from the lowered room temperature.

In hot weather the comfort of the surgeon working in an air-conditioned room is infinitely greater. His body is no longer drenched in sweat. His face and neck are dry and do not

have to be constantly mopped to keep the sweat from dripping upon the dressings or the wound. He does his work with greater safety, with more facility, and with less fatigue. The greatest benefit of air-conditioning is experienced in operations at night. Heretofore gnats and bugs, attracted by the light, have come through the window screens almost with impunity, so that the windows had to be kept closed while the lights were on. Now the room may be kept comfortable even with the windows closed.

It is a biologic fact that white women do not stand the heat and humidity of the tropics well. Both of these are more severe in summer in the unconditioned operating room in this climate than in the tropics. The nurses when on operating-room duty in summer in Columbia, almost without exception, lose weight and color. They have to be shifted often. The surgeon spend a comparatively short time in the operating room but the nurses spend their working hours there. To them air-conditioning is indeed a godsend.

A Bed of New Design

THE MEDICAL SUPERINTENDENT of a large hospital in Wales has designed a bed which he believes has its points of advantage. He is Dr Melbourne Thomas, superintendent of Llynypia Hospital at Rhondda, and he describes and pictures it in the *British Medical Journal* of Jan. 2. He writes:

The bed-frame about to be described was built after long residential experience in hospital had taught me something of the value, in convalescence, of muscular relaxation and postural comfort. I do not think the importance of these factors in convalescence is commonly or sufficiently appreciated. They are worthy of elaboration, but this is outside the scope of this communication. Furthermore, I believe that patients often leave a bed at home to enter a less comfortable one in hospital.

These observations stimulated me to design the bed-frame illustrated, wherein the shortcomings of the bedstead as commonly designed have been minimized in the following ways:

(1) causing the buttocks to rest in a _/_/

shaped interval in place of the customary V shaped interval, (2) supporting the proximal two-thirds of the thighs in place of the knee-joints, (3) providing a foot-rest, and that at a variable inclination. No 1 results in greater comfort to the lumbar region—a point of considerable importance—and prevents the usual tendency in a weak patient to gravitate towards the foot-end. No 3 gives the patient a feeling of postural security, prevents the tendency to plantar flexion at the ankle-joint, and relieves the toes of the weight of bedclothes.

The bed is further designed to accommodate comfortably either a tall or a short patient. The designs have been implemented by the makers with a simple and neat mechanism, which appears durable and is easily worked by a nurse. I recommend the bedstead to be used in conjunction with a sponge-rubber mattress. Experience of the use of this bedstead with a variety of patients in the sick wards has confirmed what was expected of it. It gives, I believe, to the patient a degree of comfort hitherto unavailable.

Improvements

CONSTRUCTION WORK on the new Bronx Eye and Ear Infirmary has reached the point where the finishing touches are being put to the foundations. Officials expect the structure to be completed in July or August. The new building will cost in the neighborhood of \$200,000. The infirmary is devoted exclusively to eye, ear, nose and throat cases. Its present quarters at 459 E 141st St, near

Willis Ave, have long been overcrowded and outmoded.

• • •

OSSINING HOSPITAL IS RAISING funds for a new ambulance. To aid the campaign, local physicians are making rather blistering comments on the old one now in use. Such exclamations as "It's terrible!" "It's a menace!" "It's a relic and a disgrace!" are

quoted in the Ossining papers. One doctor remarks that he "would rather walk to the hospital with a broken leg than ride in our ambulance." Funds are reported coming in rapidly.

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DEPUTY CONTROLLER Milton Solomon surprised 1,000 diners at the annual ball of the Jewish Sanitarium and Hospital for Chronic Diseases in the grand ballroom of the Hotel St. George in Brooklyn on Jan. 11 by announcing a plan to add a new wing to the hospital building at E. 49th St. and Rutland Road to care for 500 juvenile sufferers from infantile paralysis and related diseases. It will be paid for by a newly organized men's club. The men's club has 200 members, and will launch an immediate drive to add 5,000 names.

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THE COHOES HOSPITAL has just opened a new \$25,000 operating room.

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START OF A MODERN HOSPITAL at Liberty within a year, eventually to replace the existing structure and to give to the community an establishment equal to any in a locality of similar size in the state, was forecast on Jan. 3 at the eleventh annual dinner of Maimonides Hospital at the Grossinger Country Club at Ferndale. The prediction was made by Charles Golembe, president of the hospital association, to the more than 300 assembled in the main dining room of the county's largest resort hotel.

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THE JUNIOR AUXILIARY to the Flushing Hospital is planning to install a new lighting equipment as its gift to the hospital. Mrs. Hildegard Gustafson has been elected president of the Auxiliary. A card party will be held March 19 in the Nurses Home to help raise funds.

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SENECA FALLS HOSPITAL is starting a

campaign for a much needed enlargement.

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A FOUR-STORY BRICK ANNEX is to be added to the Madison Park Hospital, in Brooklyn, at a cost of \$250,000. The building will occupy a plot 100 feet on Kings Highway and 80 feet on E. 26th St. and harmonize with the present structure.

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NASSAU COUNTY PLANS to spend \$225,000 to build an addition to the contagious disease section of the Meadowbrook General Hospital and \$75,000 for repairs and improvements to the county sanatorium at Farmingdale. The hospital wing will contain additional facilities for handling contagious diseases and tumor clinic cases, permitting use of main hospital beds for other cases. Improvements at the sanatorium include repairs to some of the buildings upwards of sixteen years old, in addition to various minor alterations.

• • •

PLANS HAVE BEEN FILED for an annex to Beth-El Hospital in Brooklyn to cost \$500,000. The building will be five stories in height and conform to the architecture of the main hospital. The new section will be used as the maternity unit. The plans prepared by S. M. Malkind, architect, provide for remodeling of the old building.

• • •

ARMAND VINCENT, CANADIAN sports promoter, has leased the Polo Grounds for a three-day international winter sports carnival and ski meet on the afternoon and evenings of February 20, 21, 22. The Warm Springs Foundation and a committee, including Governor Lehman and Mayor La Guardia, organized to build two therapeutic pools in public hospitals, will share in the receipts. The three-day program will include ski jumping, slalom racing, snowshoe racing and dog sled racing. The field and ski jump will be covered with six inches of snow produced by machines cutting up ice into flakes.

Events

THE PROCEEDS OF THE polo tournament of the New York Athletic Association at the 105th Field Artillery Armory, Manhattan, on February 13, were devoted to the sick poor at the Flower-Fifth Ave. Hospital.

SIMULATED SNOW, dazzling ice and prismatic crystal effects transformed the main ballroom of the Waldorf-Astoria into a Winter setting for the annual snow ball for the benefit of the Lenox Hill Hospital on

the night of Jan 20 under the auspices of the Ladies Aid Society of the hospital

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THE STAFF BALL OF MERCY Hospital in Buffalo was held on Jan 16

• • •

THE ROSEDALE WOMEN'S CLUB gave a luncheon and card party on Jan 13, the proceeds going to refurbish a room in the Jamaica Hospital

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THE SEVENTEENTH ANNUAL DINNER of the trustees and professional staff of the Car-

son C Peck Memorial Hospital of Brooklyn was held on Jan 9

• • •

A DINNER DANCE for the benefit of the Lutheran Hospital of Brooklyn was given on Feb 4 at the Towers Hotel. The proceeds will go for new equipment

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WHILE MORE THAN 200 persons watched ground was broken for the three-story and basement brick annex to the four-story Evangelical Deaconess Hospital in Brooklyn. The Rev August D Pfost, superintendent, turned the first shovelfull of dirt

Newsy Notes

THE SOLDIERS AND SAILORS Memorial Hospital, of Penn Yann, is now free of debt, President Andrews announced at the annual meeting in January. "Starting at \$50,000," he continued, "the mortgage has gradually been reduced until on November 10 1936, we made the last payment. As a sidelight, I might mention that the interest paid during these eleven years on the mortgage amounted to more than \$22,000, or almost half of the original principal." Constructed at a cost of \$175,000, the hospital is the only one in Yates county

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WILLIAMSBURG RESIDENTS have begun a campaign to reopen the old Eastern District Hospital in South Third St., Brooklyn. The red brick structure, between Driggs and Bedford Aves., is reported in fairly good condition and with simple repairs might again serve the community

• • •

THE J N ADAMS MEMORIAL Hospital has reported to the Buffalo Common Council that it is impossible to obtain internes at the low fixed pay of \$600 a year. The Council has been asked by the health board to create the post of junior physician at the hospital

• • •

THE IMMEDIATE CREATION of a free clinic at the Meadowbrook general hospital to handle social diseases is one of the pressing health needs of the county, Dr Wil-

liam H Runcie, town of Hempstead health officer, told members of the town board on Jan 5

Stating that officials of the general county hospital are at present reluctant to handle these cases, Dr Runcie advised town officials that conditions have now reached a point where the matter will have to be given consideration as a vital health menace

• • •

FOR THE FIRST TIME since it was constructed in 1898, Pavilion C at Albany Hospital is to be remodeled. The program calls for the expenditure of \$21,000 for a thermostatically controlled heating system, modern gas facilities, new electric wiring, adequate reading lights for every patient, new treatment rooms, utility rooms and diet kitchens, one double and two single recovery rooms on each floor and increased storage space

• • •

THERE WERE 689 babies born in Mount Vernon Hospital in 1936, an increase of twenty over the previous year, according to a report filed with the Board of Managers by Superintendent Mary A Land. There were 4,586 patients treated in 1936 as compared with 4,438 in 1935, an increase of 148. The average number of patients in the hospital each day of 1936 was 126 against 120 in 1935. First aid treatment was given 5,316 persons during the year just closed, against 5,203 in 1935. Opera-

tions increased last year, with 2,631 against 2,523 in 1935

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WARDS OF SEVERAL New York hospitals were quarantined in January to prevent the spread of influenza Albany hospitals reduced visiting hours

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THE ENTIRE WARD SERVICE of the Go-

wanda State Hospital has been put on a three-shift schedule. The shifts begin at 5 A M, 2 30 P M and 10 30 P M

. . .

MISS MARY C MURPHY, superintendent of Rome and Murphy Memorial Hospitals, recommends in her annual report the adoption of a group hospital insurance plan in Rome and employment of a social service worker to investigate patients' ability to pay

People

DR JOSHUA M VAN COTT has been re-elected president of the medical staff of the Brooklyn Hospital

. . .

DR. W I. WALSH is the new president of the surgical and medical staff of the Samaritan Hospital in Troy He has been chief of the contagious department of the hospital since its institution and recently became head of the dermatology department.

. . .

DR. V W DUTTON has been chosen president of the staff of Faxon Hospital in Utica

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ROBERT S EATON, long a member of the board of directors of the Chenango Memorial Hospital, has been made president

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MRS HAROLD R BAGLEY has been re-elected president of the Forest Hills Auxiliary of Jamaica Hospital

. . .

GEORGE W IRWIN, of Catskill, has been re-elected president of the trustees of the Memorial Hospital of Greene County

. . .

THE FLUSHING BRANCH of the Flushing Hospital Auxiliary has elected Mrs Paul Beck president

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ENLARGEMENT OF THE board of directors of the Associated Hospital Service of the Capital District to include representation of Troy, Schenectady and Cohoes institutions was voted by the board on Jan 7

DR WILLIAM B ROEMER, Utica, was re-elected president of the Board of Managers of Oneida County Hospital at the annual meeting in January He is beginning his third term

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MRS HUBERT J TREACY has been re-elected president of the Ladies' Aid Society of St Joseph Hospital in Brooklyn

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MRS L H FIFIELD has been re-elected president of the auxiliary of Onondaga General hospital

. . .

MAX ROSENBLOOM has been re-elected president of the Onondaga General Hospital

. . .

ELECTION OF A DENTIST to the presidency of the staff of St. Joseph Hospital in Syracuse is the unusual honor paid Dr G Stuart Roth

. . .

DR A G COOK has been elected president of the staff of the Bethany Deaconess Hospital in Brooklyn

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DR. WILLIAM H DIEFFENBACH, president of the trustees of the Community Hospital, 8 St Nicholas Place, New York City for many years, died on Jan 13, aged seventy-one In 1928 he led the campaign which raised the \$1,000,000 endowment for the New York Homeopathic Medical College and Flower Hospital Dr Dieffenbach was one of the nation's leading authorities on the use of ultra-short radio waves and x-rays in medical treatment.

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Unlicensed Practitioners—Unlawful Practice of Medicine

The question of the extent to which the penal statutes can be used to effectively curb the activities of irregular practitioners of medicine was the subject of a decision recently made in one of the states of the midwest*

Two charges were brought against the defendant N, the first being that he had unlawfully treated the sick without a certificate of registration in the basic sciences, and the second being that he had unlawfully assumed the title of Doctor

The Statute involved specified that "No person shall treat, or attempt to treat, the sick unless he shall have a certificate of registration in the basic sciences" "Treating the sick" was defined by law as follows

To "treat the sick" is to examine into the fact, condition, or cause of human health or disease, or to treat, operate, prescribe or advise for the same, or to undertake, offer, advertise, announce or hold out in any manner to do any of said acts, for compensation, direct or indirect, or in the expectation thereof

Disease by law was defined to include "any pain, injury, deformity, or physical or mental illness or departure from complete health and proper condition of the human body or any of its parts"

Upon the trial it was conceded that N was not licensed within the State to practice medicine or optometry and that he had no certificate of registration in the basic sciences. It was contended, however, on his behalf that the acts which formed the State's case against him amounted to no violation of law, and that at most he had prescribed exercises for physical culture purposes

From the testimony upon the trial it appeared that N was sales manager for a corporation called "The American Society for the Conservation of Vision." It conducted a suite of offices with the corporate name on the door and under that a name reading "James L. H., M.D." Three individuals who consulted N at those offices and received treatment gave their version of his activities

It seems that a Miss A and a Mrs B entered the office together and were both

told by an office girl, "This is Dr N and he'll take care of you" N told the two prospective patients to follow him into another room where he examined their eyes with an ophthalmoscope and noted their vision by means of lettered charts. He told both of the women that their trouble was astigmatism. Miss A told N that she suffered from sick headaches when she did not use glasses. She was told that N would reduce the strength of her lenses, and would also give her a series of eighteen treatments after which he told her she would be able to go without glasses, and her headaches would be cured. Mrs B was told that she would not need glasses after twelve of his treatments. On that day he gave instructions to Miss A as to the use of heating pads for her headaches

The next day the two women returned to N's office, according to the testimony. He gave each of them charts with dots and lettering and instructed them as to a method of looking at the dots from various angles, and as to how to exercise their eyes daily in other manners. He told Mrs B to leave her glasses off, stating that if she wore them she would undo the good accomplished by his method of treatment. She complained that if her glasses were left off she would have headaches and was told to ignore such headaches, since with successive treatment the headaches would be gone. N named as a price for his services \$5 00 for each treatment or six treatments for \$25 00, and requested each of them to pay \$5 00 to his office girl. They did so and each received a receipt

The third witness who gave testimony concerning treatment was C, a man who was afflicted with a partial paralysis described as being sometimes called the blind staggers. He also sought N's services regarding the condition of his eyes. N advised C that his difficulty could be corrected by exercises, and that he would eventually be able to go without glasses, after various changes were made in his lenses to lessen their strength by degrees. N stood C before a chart and directed movements of C's head in reading the chart, and gave him directions as to methods of home exercise

*Nickell v State, 238 N W 508

The second charge against N was based upon violation of the statute providing

No person not possessing a license to practice medicine and surgery, osteopathy, or osteopathy and surgery, shall use or assume the title "doctor" or append to his name the words or letters "doctor," "Dr," "specialist," "M D," "D O" or any other title, letters or designation which represents or may tend to represent him as a doctor in any branch of treating the sick.

In the support of the second charge in addition to the testimony already referred to, it was shown that when introduced to Miss A and Mrs B as Dr N he promptly proceeded to treat them, doing nothing to correct the erroneous impression that he was "Dr" N. It was also shown that when a few days later one D an investigator for the State Board of Medical Examiners called at his office and asked him if he was Dr N he had replied, "Yes, sir, I am."

Upon such proof N was found guilty by a jury upon both of the charges and was duly sentenced. He, however, appealed the matter to the highest State Court, claiming that the evidence failed to sustain either of the charges. The Appellate Court affirmed the conviction, and in the course of the opinion stated

That evidence was certainly ample to establish that N on or about February 6, 1931, in violation of section 147.02 Stats, for compensation unlawfully did treat the sick as that term is defined. The astigmatism and headaches of Miss A and Mrs B, and the partial paralysis of C, constituted a disease.

The manner in which he examined their eyes, and into the condition and causes of their respective diseases, and thereupon treated and

prescribed and advised treatment for those conditions, and held out that by such treatment their diseases and conditions, including their sight, would be remedied, clearly constituted treating the sick. The attending circumstances and manner in which the examinations were made, the character of the treatments prescribed and given, and the accompanying advice as to their necessity and purpose and the prophesied remedial achievements, were such that it would be ridiculous to consider the treatments mere ocular calisthenics on a par with the exercises customarily prescribed for ordinary physical culture purposes. The conviction on the first charge was well-warranted by the evidence."

In connection with the second charge the Court said

"In view of the circumstances and transactions at that office on February 5, 6, and 7, 1931, in which N participated, it was within the province of the jury to find, under the evidence, that N on or about February 6, 1931, did assume the title "doctor" in a way that tended to represent him as doctor in a branch of treating the sick, and consequently, as he did not then possess a license to practice he was guilty as charged. From what was then said by others in N's hearing, and his conduct and statements in immediate response thereto, the jury could rightly infer that he did then adopt, take upon himself, feign, affect or pretend to possess that title. Manifestly, in answering "Yes, sir, I am," to D's question whether he was "Dr N" he affirmed that title. Less convincing to some degree but equally misleading and deceptive was his silence when, upon hearing that title falsely applied to himself by a subordinate employee, he responded thereto, and as in response thereto, adopted and took that title upon himself by affecting and pretending to have the knowledge, skill, and legal privilege to treat the sick, which that title implied under the existing circumstances."

PURE FOOD AND DRUG FIGHT RENEWED

Senator Copeland is renewing his fight for his pure food and drug bill in the new session of the Senate, and a similar measure is being introduced in the House. According to accounts in Washington newspapers, the new Copeland measure will contain the same principal provisions as the bill shelved in the last Congress because of strong opposition to some of the regulatory measures governing labeling and packing of foods, drugs and cosmetics.

In addition, Dr Copeland said, it will contain revised provisions for strengthening the enforcement features of the Wiley law, create uniform standards of identity and quality, and "outlaw the manufactures of fakes." He added

"The primary purpose of the bill is to protect the consumer, of course, but there must be regulations also to protect the manufacturer.

"Much progress has been made in the food industry since the enactment of the Wiley law, but it should be brought up to date with the progress that has been made during that time."

Dr Copeland added that much of the opposition heretofore expressed to the Wiley law is diminishing.

"It is interesting to note that many manufacturers who opposed the 1906 law have become its most ardent champions."

Across the Desk

Are Our Brains Getting Tougher?

SOME TIME AGO the story was told in these columns of a young woman out in California who fired a bullet through her brain and injured herself so badly that it was really several weeks before she was out of the hospital and several months before she was around doing her household duties as usual

She made only one try True, the one shot rendered her unconscious for a time, but she has not repeated the experiment since, as far as reported. In that she is different from an Englishman who decided a few days before Christmas that he couldn't stand our delightful world any longer, and placed a revolver to the side of his head and pulled the trigger The bullet entered his brain and came out on the other side all right, but the man was not even stunned. We can imagine him looking at the revolver and wondering if he had been cheated. Perhaps it was an inferior make Or maybe he was doing it wrong Anyway, we know that he changed it over to the other hand, held it to the other side of his head, and got the desired result.

Dr Joan Ross, pathologist, testifying at the inquest, said there was one wound on each side of the head The first bullet was found to have passed through the brain without causing any vital or extensive injury, and evidently did not cause unconsciousness The second did the trick.

Something is seemingly wrong with our brains or our bullets It was not thus in the olden days In fact, the famous so-called "intelligence" tests, faced by our fearless army in the war, had one supposedly absurd sentence about a man, shot twice in the head, who was thought to have killed himself Impossible! Yet it happened in England in December

Fiction that is Stranger than Truth

"Dogged does it," is an English saying

"If at first you don't succeed, try, try again" So he deftly shifted his weapon to the other hand, and in a moment he received his harp, coal shovel or whatever, as the Scotch say He was more successful, anyway, than the man in the old story who had failed in everything, decided to end his life "and all," and was determined not to fail in that, at any rate, so he went out on the river in a boat, found a tree overhanging the water, tied a rope to a branch and the end around his neck, swallowed a dose of poison, kicked the boat from under him, put a pistol to his head, and fired Never a crack shot, his bullet missed and cut the rope, he fell in the river, swallowed a lot of water, which made him feel sick, as he was not used to drinking water, brought up the poison, then the sheriff happened along, dragged him out, and arrested him for violating the bathing regulations

The Bad Die Young

A lynx-eyed reader recently criticized this scribe for printing a story that was four or five weeks old The writer took it really as a bouquet, for he recalled the saying of a wise old professor in an Eastern university that if a story were not good, it would never get to be old Well, the reason he tells this one is that it is so old that the middle-aged and younger members of our reading circle probably never heard it. It dates back to around the McKinley Administration Any one who has the temerity to write in and criticize it, well, he dates himself, he dates himself Will that make him feel small? Maybe If not, we note a warning statement in the *News Letter* of the Suffolk County Medical Society that "Harvard scientists have found a way to shave fossils to a thickness of only 1-25,000 of an inch" Why, is not stated, but there you are Beware

Our Auxiliaries—The Next Step?

THE RAPID ORGANIZATION of women's auxiliaries to the county medical societies goes merrily on They will soon be a powerful force, aiding in ways that only the feminine

touch can bring And it is not saying anything treasonable or even heterodox to declare that they are going to get a lot more of fun out of their gatherings than their

men do out of their conclaves. Nothing has been reported to this scribe, so far about any magazine or news sheet to be the voice of the New York State Auxiliaries. Some other states have publications of this kind which pay for themselves by their advertising and afford the members a chance to express their views, record their doings, and get acquainted generally through the chit-chat of the printed page.

It happens that the "Woman's Auxiliary Section" of the *Kentucky Medical Journal* has just come to this desk. It is a quarterly publication, and is produced by two groups of the auxiliary members, known as the "Cornelias" and the "Isabellas." The Cornelias, it seems, are the members who write, edit and prepare the reading matter, and the Isabellas look after the financial end. The Isabellas sell the advertising space, and we are given a vivid word picture of an Isabella interviewing the head of a business firm, displaying a copy of the quarterly, then handing him a rate sheet, and finally the Contract Blank, pointing out the Dotted Line which he is to grace with his signature. The scene closes on a note of charm, the Isabella "gratefully accepting the check" and taking it to the Business Manager.

Auxiliaries in the Flood Crisis

A more serious reflection is that these

devoted wives of the Kentucky medical men are probably now having their hearts and hands more than full in the service of the sick and suffering in the tragical floods inundating their river towns and cities. This is a crisis when the auxiliaries, with many of their members skilled in the care of the sick, can turn in a moment from social doings to render splendid service, and we can readily imagine the Isabellas and the Cornelias and all their sisters helping grandly in the work of succor, or, equally invaluable, keeping their men in trim for their night and day battle with disease and death.

The fifth birthday of the quarterly was recently celebrated at a dinner party of the Isabellas, shown in a flashlight photograph, with the winning smiles to which the big business executives succumbed. We are assured that some of the stories of their interviews would have made good material for O Henry. The Cornelias are seen in another picture preparing the material for the printer, and typing a letter of instructions. A good companion picture would have been a snap-shot of the same faithful workers, on the day after publication, typing a warmish letter to the printer asking a few pointed questions about how it happened that this and that error crept into the types! For such is the way of all journalism.

A Happily Groundless Scare

A NEWS ARTICLE the other day told of an enterprising concern in New York City that is achieving prosperity by cleaning and sterilizing the mouthpieces of telephone instruments in offices where the bosses are germ-conscious, so to speak. A vivid sales-talk, with pictures of horrid-looking bacilli, no doubt can throw the most hard-boiled executive into a cold sweat and make the goose-pimples rise all over him. The signing of a nice little contract to disinfect the mouthpiece, at so much per, follows in two minutes.

Not a word is to be said against such a campaign. If we had cleanliness everywhere, disease would be reduced enormously. Clean and sterilize the mouthpieces, by all means. But, at the same time, the medical profession and the public are entitled to know the facts, and people should not be thrown into a panic and be frightened away from using

public telephones when there is really no danger. No good purpose could be served by that.

Fortunately we have a report of an exhaustive investigation of this very matter by Prof. Ludwig Lange at the German National Health Bureau Laboratory for Experimental Research on Tuberculosis, and reported in a Berlin letter to the *Journal of the A M A* (Jan 23). What he finds is that the danger of infection by telephone apparatus is far less from a theoretical standpoint than the danger in crowds or from such a common article as paper currency. Earlier investigations in Germany, England, and America all gave negative results.

In this test thirty-four telephones were examined which had seen service in private residences, public booths, telephone exchanges, or had even been used by openly

tuberculous patients in sanatoriums Twenty of them had been allowed to remain uncleaned, and fourteen were given the routine cleaning of all public phones No tubercle bacilli could be detected on any of the fourteen disinfected instruments As for the others, we are assured

"No Real Danger of Infection"

In only two instances could virulent tubercle bacilli be demonstrated in guinea-pigs inoculated with dusts from the twenty uncleaned telephones, although four of these instruments had been intentionally chosen because of the repeated usage to which they had been subjected by tuberculous patients in sanatoriums In one of these cases only the bovine type bacillus could be cultured out This case can scarcely be adduced as incontestable proof of the presence of virulent tubercle bacilli on the telephone apparatus In the second case the dust used in inoculation had been removed from an instrument that had been used repeatedly and

frequently by a patient with severe open tuberculosis Only one of the four guinea-pigs used in the experiment actually became ill and in this case it was possible to culture the human type tubercle bacillus When the apparatus used by the severely tuberculous patient was cleaned, tubercle bacilli could no longer be detected in dust specimens

This is actually the first time that the presence of virulent tubercle bacilli on a telephonic apparatus has been demonstrated

This single finding ought not to be considered of any general significance, for it by no means proves that the user of public telephones runs the risk of becoming infected It should also be kept in mind that for the purpose of these examinations the layers of dirt underwent a much more thorough process of removal and collection together than would ever take place under ordinary circumstances Professor Lange concludes from his investigations that there exists no real danger of infection from the use of a telephone

LECTURES ON DIAGNOSIS AND TREATMENT OF SYPHILIS

The following schedule of lectures and hospital demonstrations in the modern methods of diagnosis and treatment of syphilis is sponsored by The New York Academy of Medicine at the request of the Commissioner of Health of New York City Attendance is open to members of the medical profession Time, 4 30 P M

"Unusual Types of Primary and Secondary Syphilis," W Bayard Long, Feb 17
 "Prenatal and Congenital Syphilis," Isadore Rosen, Feb 24

"Significance of Serologic Tests in Syphilis," A. Benson Cannon, March 3

"Epidemiology of Syphilis," C Walter Clarke, March 10

"Treatment of Syphilis," Leo Spiegel, March 17

Practical demonstration of patients, methods of diagnosis and treatment in the following clinics, to March 27

Borough of Queens Queens General Hos-

pital, Howard Fox, Mon & Thurs, 2-3
 Health Dept Clinic, Louis Chargin, Tues & Thurs, 9-10 30 Harlem Hospital, Samuel Irgang, Friday, 3-4 Lenox Hill Hospital, Leo Spiegel, Mon & Fri, a m. Mt. Sinai Hospital, Isadore Rosen, Tues & Sat, 2-3 30 St Luke's Hospital, W Bayard Long, Mon & Thurs, 1 30-3 Vanderbilt Clinic, J Gardner Hopkins, Mon 3-4 and Thurs 4-5, beginning March 1st Skin and Cancer Unit, Post-Graduate Hospital, George Miller McKee, Mon and Sat 2-4

Borough of Brooklyn Health Dept Clinic, George F Hogan, Tues and Fri, 9-12 Long Island College Hospital, Moses Silverman, Wed and Fri, 9-12 Kings County Hospital, Alfred Potter, Wed & Sat, 9-12

Borough of Queens Queens General Hospital, Rudolph Boenke, Tues & Thurs, 3-4

Borough of Bronx Morrisania Hospital, Samuel Feldman, Tues & Fri, 9-11

COLORATURA

He kissed her on her ruby lips,
 It was a harmless frolic,

But though he only kissed her once,
 He died of painter's colic—*Epicarmus*

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Lectures on Embolism and Other Surgical Subjects By Gunnar Nystrom, M.D. The Abraham Flexner Lectures Series Number Four. Octavo of 213 pages, illustrated. Baltimore, Williams & Wilkins Co., 1936. Cloth, \$3.00.

The Medical Record Visiting List or Physicians' Diary for 1937 16mo. Baltimore, William Wood & Company, 1936. Flexible Cloth.

Recent Advances In Allergy (Asthma, Hay-Fever, Eczema, Migraine, Etc.) By George W. Bray, M.R.C.P. Octavo of 517 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., 1937. Cloth, \$5.00.

Synopsis of Ano-Rectal Diseases By Louise J. Hirschman, M.D. Duodecimo of 288 pages illustrated. St. Louis. The C. V. Mosby Company, 1937. Cloth, \$3.50.

Juvenile Paresis By William C. Menninger, M.D. (The Menninger Clinic Monograph Series No. 1) Octavo of 199 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1936. Cloth, \$3.00.

A Handbook of Hygiene for Students and Teachers By Cyril G. Eastwood, M.B. Duodecimo of 358 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$2.50.

A System of Clinical Medicine. (Dealing with the Diagnosis, Prognosis, and Treatment of Disease for Students and Practitioners) By Thomas Dixon Savill, M.D. Edited by Agnes Savill, M.D. and E. C. Warner, M.D. Tenth edition. Octavo of 1114 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$9.00.

A Manual of Pharmacology By the late Walter E. Dixon, M.D. Revised by W. A. M. Smart, M.B. Eighth edition. Octavo of 483 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$6.50.

Physiological Principles in Treatment. By Sir Walter Langdon-Brown, M.A. and Reginald Hilton, M.A. Seventh edition. Octavo of 308 pages. Baltimore, William Wood & Company, 1936. Cloth, \$3.00.

The Harvey Lectures Delivered under the Auspices of The Harvey Society of New York, 1935-36. Series XXXI. Octavo of 255 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1936. Cloth, \$4.00.

Textbook of Medicine. By Various Authors. Edited by J. J. Conybeare, M.D. Third edition. Octavo of 1027 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$7.00.

Kama Sutra. The Hindu Science of Love. By Mallinaga Vatsyayana. Translated from the Sanskrit by Sir Richard Burton. Octavo of 127 pages, illustrated. New York, The Medical Press of New York, 1936. Cloth.

Rural Health Practice By Harry S. Mustard, M.D. Octavo of 603 pages, illustrated. New York, The Commonwealth Fund, 1936. Cloth, \$4.00.

Dust of Our Time By H. Ameroy Hartwell. Octavo of 82 pages. Weehawken, H. Ameroy Hartwell, 1936. Cloth, \$1.50.

The Living Aesculapius By H. Ameroy Hartwell. Octavo of 15 pages. Weehawken, H. Ameroy Hartwell, 1936. Paper, 25c.

REVIEWS

Tissue Immunity By Reuben L. Kahn, M.S. Octavo of 707 pages, illustrated. Springfield, Charles C. Thomas, 1936. Cloth, \$7.50.

This monograph presents experimental studies relating to tissue immunity, carried out by the author and his assistants for more than five years. These were quantitative, and the ability of tissues to immunologically react has been progressively studied from the non-immune state through-out the course of reactivity to subsidence.

Tissue capability for reaction in natural, active, and passive immunity, in the young and adult, in specific tissues, have been investigated. The very complete commentary, covering the research procedures and manifested clinical phenomena, is extended into a discussion of theoretical and practical aspects. At the end of each chapter is a summary with clinical considerations which makes it easier for the reader to visualize the results so laboriously obtained. The experiments may readily be used as an out-

ORDERING BOOKS

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line for a laboratory course in the subject, yet the book cannot be considered as a laboratory guide or text. Despite its marked verbosity and some discursive points, such material within a single cover will lead to better understanding of the principles, should be stimulating to further research, and will be useful as a reference work to the clinician and the immunologist

IRVING M. DERBY

New and Nonofficial Remedies, 1936 Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1936. Duodecimo of 542 pages. Chicago, American Medical Association, 1936

In this edition a number of articles have been omitted, either because they conflict with the rules of the Council of Pharmacy and Chemistry, or because they are off the market. The grouping together of articles having a similar composition or action is continued in this edition, each group being preceded by a general discussion. As usual, the book furnishes a valuable guide in the selection of remedies

W E McCOLLOM

The Legal Aspects of Milk Control. By James A. Tobey, Dr. P. H. Octavo of 102 pages. Chicago, International Association of Milk Dealers, 1936. Cloth

This is an excellent treatise upon an extensive subject which the author has covered most admirably. The milk industry should be helped in understanding the legal aspects of milk control. Throughout the pages there is much the milk industry can learn about its responsibility in modern milk production and handling

ALEC N. THOMSON

Paget's Disease of the Nipple and Its Relation to Surface Cancers and Precancerous States in General. By Keith Inglis, M.D. Quarto of 233 pages, illustrated. New York, Oxford University Press, 1936

Dr. Inglis has contributed an excellent monograph that will find its place on the select shelf of the physician's library

An excellent historic sketch appears in the opening chapter. Frequent citations review the literature completely. A generous number of case reports, beautifully illustrated, serve to clarify the text.

The author contends that Paget's disease is neoplastic from the onset. He arrives at this conclusion after a critical survey

of inflammatory and precancerous lesions affecting the mammary ducts and the skin in general

Paget's disease in its uncomplicated form is a surface cancer, commencing at the junction of the lactiferous ducts and the epidermis, or in a lactiferous duct near its outlet. It spreads downward, by permeation of the epithelium of the duct to the acini, and outward, to the epidermis of the nipple without involving the subjacent connective tissue. Subsequently, it breaks away from the duct or acini and invades the supporting structure of the breast (scirrhous carcinoma). The Paget cell has an inherent tendency to die early, which accounts for its slow progression and the inflammatory reaction it sets up

Paget's disease must be differentiated from deep carcinoma of the breast, primary carcinoma of the nipples and ducts, eczema and dermatitis of the areola, cancer en cuirasse, Darier's disease and molluscum contagiosum

The author is convinced that no treatment other than surgery can cure Paget's disease

HARRY MANDELBAUM

Proctology. A Treatise on the Malformations, Injuries and Diseases of the Rectum, Anus and Pelvic Colon. By Frank C. Yeomans, M.D. Second edition. Octavo of 661 pages, illustrated. New York, D. Appleton-Century Company, 1936. Cloth, \$12.00

This is the second edition of an outstanding book on proctology. Numerous additions have been made to the first, which appeared in 1929

As proof that the author has attempted to include every worthwhile addition to the subject of proctology a special chapter has been added and inserted between pages 207 and 208 and numbered 207a and 207b on the important subject of pectenosis

A few of the other subjects added or revised are the technic of phenol in oil injection treatment of hemorrhoids, use of oil soluble anesthetics, radiodermatitis, lymphopathia venerea, angiomas of the colon and rectum, and subarachnoid injection of alcohol for the relief of intractable pain in advanced malignant disease.

The index, although fairly complete, does not include radiodermatitis, which is found on page 188 under pruritus ani, or lymphopathia venerea which is found under inflammatory stricture on page 361

The book is well written and illustrated, complete, authoritative, and is heartily recommended to the student, general practitioner and specialist.

CHARLES GOLDMAN

Orthopaedic Surgery By Walter Mercer, M.B. Second edition. Octavo of 906 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$10.00.

This is both a textbook, and consisting of some thousand pages, is also a work of reference. The foundation of the publication is a series of lectures given at Edinburgh. The book presents an interesting angle as Mr. Mercer is a general surgeon who is addicted to orthopedics, and who has devoted much attention to the skeletal body. In producing a work of this scope he has drawn largely from the literature on the subject. However, the author includes much of his own experience which gives a personal element to the volume. This work can be suggested as a text-book for medical students. J. C. RUSHMORE

Bright's Disease and Arterial Hypertension By Willard J. Stone, M.D. Octavo of 352 pages, illustrated. Philadelphia, W. B. Saunders Company, 1936. Cloth, \$5.00.

Dr. Stone has written an interesting account of his observations on Bright's disease as seen at the Pasadena Hospital. His book will not supersede other larger works on the same subject such as Fishberg or Mosenthal but will be useful as a readable introduction to the study of kidney diseases. Especially valuable are the chapters on historical sequences and classifications, both of which will give the reader necessary perspective, although it is difficult to see why Dr. Stone found it necessary to add a new classification to the list. In this country, Volhard and Fahr's classification, especially as modified by Addison, has received such wide recognition that every attempt should be made to make it familiar to all medical students and practitioners.

It is a pleasure to note that certain recent advances are mentioned, such as the valuable fractional PSP method of estimating renal function and the use of sucrose as well as glucose in hypertonic solutions. No mention is made, however, of tetany in advanced nephritis nor of the possible therapeutic use of calcium salts in connection with twitchings, etc. Acidosis is given the chapter it deserves but in future editions we hope that Dr. Stone will mention the highly successful use of sodium bicarbonate solutions as employed by Marzullo. Arterial hypertension is covered in a comparatively brief manner, and then mostly in connection with kidney disease. There is a long, and to our mind unnecessary, chapter containing numerous autopsy abstracts.

On the whole, this is a good clinical account of Bright's disease, with especially

good historical and pathological sections, but with treatment inadequately covered.

MILTON PLOTZ

Practical Examination of Personality and Behavior Disorders Adults and Children. By Kenneth E. Appel, M.D. & Edward A. Strecker, M.D. Octavo of 219 pages. New York, The Macmillan Company, 1936. Cloth, \$2.00.

This book is essentially an outline of the technique of psychiatric examination of personality and behavior disorders in adults and children. It is divided into two sections, part one being concerned with adults, and part two with children. Outlines are presented for taking a psychiatric history, making a mental examination of the patient, as well as for physical and neurological examinations. There is an excellent summary of the complete psychiatric survey. A similar plan is followed with respect to children. In this portion of the work, outlines are presented for obtaining the history and development of the problem or behavior difficulty of a child, as well as supplementary forms for reports from the school teacher. Simple intelligence tests are suggested. There are study forms concerning habit problems in childhood which may be read by a parent to enable him to find out in what respect he has been remiss in the training of his child.

For those practitioners interested in learning a simple psychiatric technique, this book is heartily recommended.

STANLEY S. LAMM

A Textbook of Obstetrics By Edward A. Schumann, M.D. Philadelphia, W. B. Saunders Company, [c. 1936]. 780 pages, illustrated. 8vo. Cloth, \$6.50.

Edward A. Schumann, now Professor of Obstetrics at the University of Pennsylvania, has finally written his textbook. Too bad his inimitable conversational style of lecture could not be part of his text book, yet his ability and long experience as a teacher have made this a very creditable book, which is, by the way, handsomely illustrated and not too large.

Caldwell and Moloy's new classification of pelves is given more weight than in many recent textbooks, the chapter on contracted pelvis is excellent. Stander's classification of the toxemias is for the most part followed. Yet nephritic toxemia is accepted and hepatic toxemia is synonymous with acute yellow atrophy. Routine vaginal examinations are advocated, and use of pituitrin is advocated as soon as the second stage labor is complete. Anesthesia is well discussed. This book is recommended for students and general practitioners.

CHARLES A. GORDON

PATHOLOGY AND TREATMENT OF SPINAL INJURIESJOHN E SCARFF, M.D., *New York City**From the Neurological and Neurosurgical Clinic of Bellevue Hospital***I Introduction**

Considerable difference of opinion exists today regarding the methods of treating spinal injuries. On the one hand, there are those who feel that most cases of spinal injury showing signs of major cord involvement, especially spinal fluid block, should have the cord explored. On the other hand, there are those who feel that it is only in the rarest instance that operation will accomplish any good, and that in most cases, exploration only adds to the burden which the patient already must bear.

The present study is an effort to add, so far as possible, additional pathological and clinical data to that already available on the subject, and to attempt, on the basis of this data, to suggest the most rational methods of therapy. In no sense is this paper intended to be statistical. Rather, effort has been made, after a careful review of all available clinical, x-ray, and pathological material, to present certain basic principles which seem to stand out, and to illustrate these principles with brief references to typical cases. As a result of his early association with Doctors Alfred Taylor and Byron Stookey, to both of whom he is deeply indebted for instruction on this subject, and subsequently, as the result of his own experience and observation, the writer has acquired the conservative viewpoint regarding operation in case of spinal injury—namely, that it is indicated

only in the rarest instance. This paper, therefore, while intended primarily as an expression of the writer's personal view on this subject, does to a certain extent, represent the whole school of conservative thought.

The study is based essentially upon an analysis of the forty-five cases of spinal injury received upon the neurological service of Dr. Foster Kennedy at Bellevue Hospital during the past five years, with a few additional cases taken from the writer's private practice. The Bellevue Hospital cases have been observed and treated by the various members of the attending surgical staff, including Doctors Byron Stookey, Joseph E. J. King, and Dorothy Klenke, as well as the writer. Acknowledgment is also made to the office of the Chief Medical Examiner of the City of New York for valuable assistance in conducting this study, and to Dr. Lewis Stevenson for the generous cooperation of his laboratory at Bellevue Hospital.

II General Characteristics of Spinal Injuries

One of the first facts which emerges from a study of spinal injury is that there exists no constant quantitative relationship between the extent of injury to the bones of the spinal column and the extent of injury to the spinal cord. To illustrate

Fig. 1 is an x-ray of the cervical spine of a

*Read at the Annual Meeting of the Medical Society of the State of New York,
New York City, April 28, 1936*



Fig 1 and 2 There is no quantitative relationship between the extent of injury to the spinal column and the extent of injury to the spinal cord. Fig 1 shows a normal appearing spine of a man who suffered tetraplegia following a fall. Fig 2 shows a badly fractured and dislocated cervical spine of a man who had no symptoms whatever of cord compression after a fall.

man who fell down a flight of stairs. This shows no signs of fracture, yet from the moment of his fall this man had a complete tetraplegia, paralysis of the bladder, suppression of all tendon reflexes in the legs, a sensory level at C-4, and a total block of spinal fluid.

Fig 2 is the x-ray of a cervical spine of a man who fell backward off a truck to the ground, a distance of about six feet. The x-ray shows a fracture dislocation of C-5 upon C-6 with marked displacement. Yet this man did not bother to come to the hospital until the next day, and then only because of some very slight weakness and pain over both deltoid muscles and shoulder joints.

As the study continues it becomes evident that neurological signs following any serious spinal trauma are the result of four different pathological factors acting individually or in various combinations.

These factors are

- 1 Laceration and crushing of nervous tissue by moving bony fragments at the time of original trauma
- 2 Hemorrhage into the cord

3 Edema of the cord.

4 Continuing pressure upon the cord caused by residual bony deformity.

The writer feels that the inclusive term "spinal injury" should be more generally used in referring to this type of case, rather than specific terms, such as, "fractured spine," "hematomyelia" or "dislocation"—since none of these specific conditions is apt to occur alone where there has been spinal trauma.

The role of each of the above pathological factors in the production of neurological symptoms following spinal trauma will be considered, one at a time, in the following pages, and on the basis of these considerations suggestions for therapy will be made.

III Laceration and Crushing of Nervous Tissue by Moving Bony Fragments at Time of Original Trauma

Crushing or laceration by moving fragments of bone at the time of initial trauma is, of course, the most serious of all the

four factors, since injuries of this type can never be repaired in any degree, either by natural processes or through surgical help

It would be desirable from the standpoint of prognosis, even though it would have little effect upon therapy, to determine, if possible, the extent to which the neurological symptoms in any given case were due to total section of nerves. But

this now seems impossible to do in the early states of the injury, and the writer will, therefore, not take up space in speculation upon this point

IV Hemorrhage Into the Cord (Hematomyelia)

Hemorrhage into the cord (hematomyelia) is an almost constant pathological sequel of spinal trauma. It is present, in greater or lesser degree, whenever the cord has been contused by a fractured vertebra, and is an important factor in producing the symptoms which follow.



Fig 3 Hemorrhage into the cord (hematomyelia) occurs, to some degree, in almost every spinal injury. This hemorrhage occurs almost exclusively in the central gray matter of the cord, which it destroys for a considerable distance in both directions from the site of trauma.

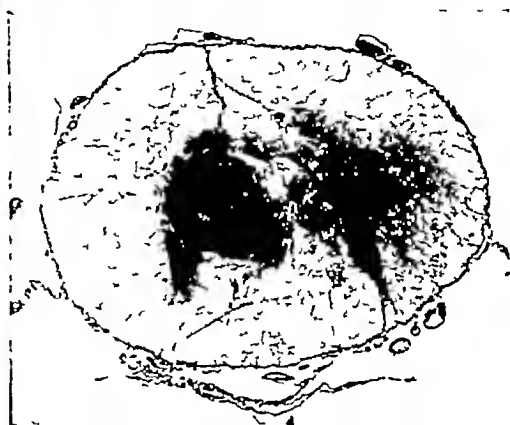


Fig 4 In hematomyelia the bulk of the hemorrhage is usually slight. It produces symptoms, not by pressure-effects on the passing tracts, but by interference with cells and association pathways in the central gray matter of the cord—chiefly the anterior horns. Operation accomplishes nothing in this condition.



Fig 5 Atrophy of the intrinsic muscles of the hand occurs when the anterior horn cells are destroyed by hemorrhage. This atrophy causes a typical deformity—the so-called "spinal hand."

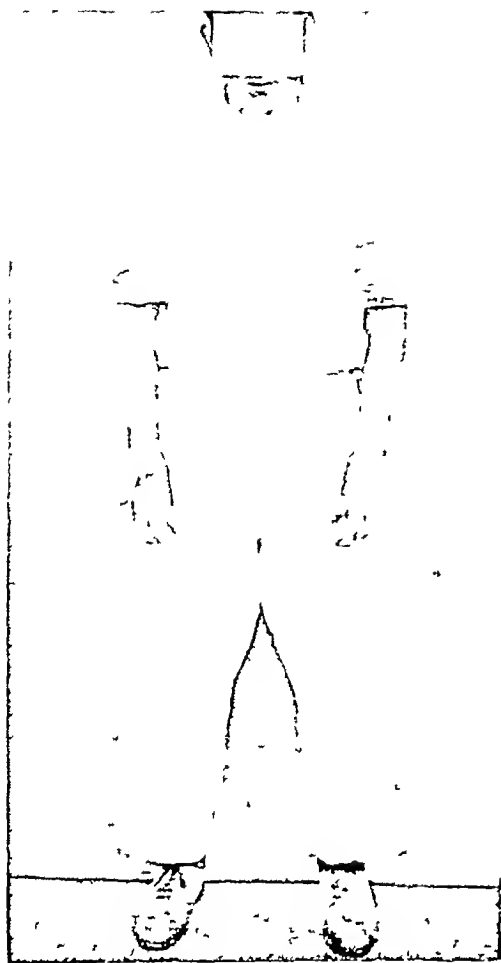


Fig 6 The lower extremities usually recover motion and power more rapidly and completely than the upper extremities. This is the patient whose hands are shown in Fig 5

It may even occur after indirect trauma to the head or body when there are *no* signs whatever of a fractured spine, and, indeed, sometimes when there is hardly even an adequate history of trauma. For example

A seventy-six year old retired policeman rolled out of bed on the floor while asleep, falling a distance of only about two feet. He had an immediate tetraplegia, paralysis of the bladder, and loss of sensation below the level of C-3, in spite of which x-ray of his cervical spine revealed no fracture. Three weeks later, while he was beginning to show very definite improvement, this man died suddenly of a pulmonary infarct. Examination of his spinal cord at autopsy showed a recent hemorrhage into the spinal

cord, of the type to be described in the next paragraph, which had been responsible for his sudden paralysis

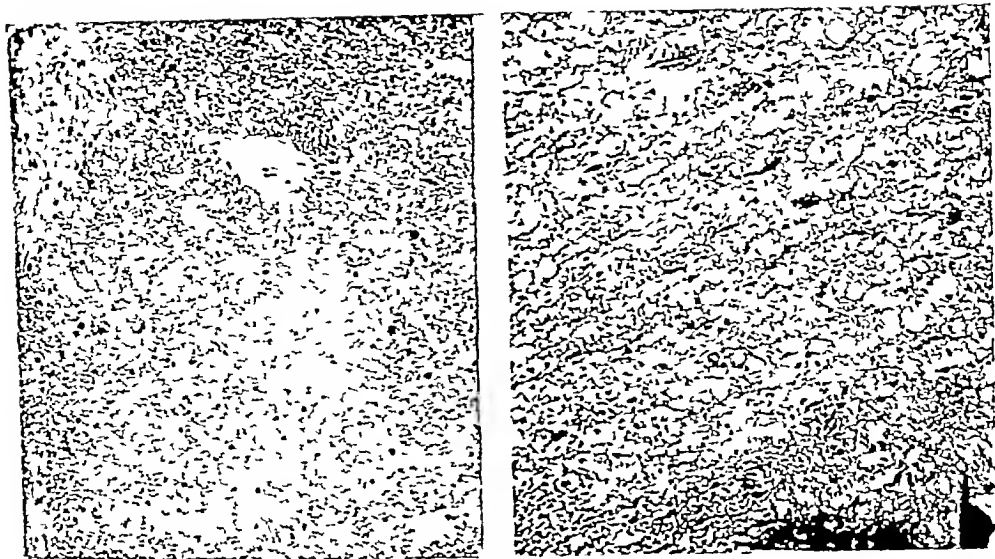
The *essential pathological feature* about these hemorrhages into the cord is that they occur almost exclusively *within the central gray matter*, which they dissect progressively both up and down the cord, involving only very slightly the peripheral white matter making up the longitudinal fasciculi. Fig 3 and 4 illustrate these points very clearly. It will be seen from these photographs that the gray matter is practically "*pitied*" by the hemorrhage. It will also be noted that the cross section bulk of the clot is comparatively small—too small, in fact, to exert any serious *pressure-effect* upon the longitudinal nerve fibers which pass close by *

The reason for this predilection of the hemorrhage for the gray matter in the cord is not clear unless it be that this part of the cord is relatively less dense than the peripherally placed longitudinal fasciculi, but whatever the reason for it, that pathological fact explains the clinical observation which we have made many times, namely, that, in people with spinal injuries in the cervical region, the paralyses of the legs and bladder may clear up quickly and almost completely, while that in the arms and the hands tends to improve much more slowly and much less completely. In addition there usually appears in cases of hemorrhage into the cervical cord, a marked atrophy of the muscles of the forearms and hands—such as follows destruction of the anterior horn cells in the gray matter—producing the typical deformity seen in cases of syringomyelia or central tumor of the cervical cord, the so-called "spinal hand" (Fig 5)

How shall hemorrhage into the cord be treated? In the writer's opinion, not by surgery. For by the time that the injured patient has been brought to the hospital, has been examined, x-rayed, and prepared for operation, at least one to two hours will have elapsed. By

* Specimens and photographs of the cords, loaned by courtesy of the office of the Chief Medical Examiner, of the City of New York, for this publication

March 1, 1937]



Figs 7 and 8 The spinal cord after trauma may quickly swell to almost twice its normal size, as a result of edema. The above microphotographs are cross sections of the white matter in Fig 7, a normal cord, Fig 8, a traumatized, edematous cord

this time the bleeding will most surely have stopped of its own accord since these hemorrhages when seen at postmortem are never very large. But during this interval more than enough time will have elapsed for a hemorrhage, starting, let us say, in the cervical region (which is the most common site) to have already dissected up and down the cord a considerable distance, and to have "pithed" the gray matter supplying the brachial plexus. Surgery can retrieve nothing here.

It has been urged by some that in these cases the cord should be exposed by laminectomy and attempts made to aspirate the blood within the cord by means of a needle and syringe, although it is probable that long before exposure of the cord could be made, most of the extravasated blood would have been clotted and would not pass through a needle. Under these circumstances, it is then urged that the cord should be split down the dorsal midline and the clot extracted, or allowed to extricate itself. These suggestions, however, ignore the essential pathological fact that the hemorrhage produces its chief effect on the cord by invading and disrupting and partially destroying the delicate individual cells and association pathways within the gray matter, in exactly the same way that the spring flood of a

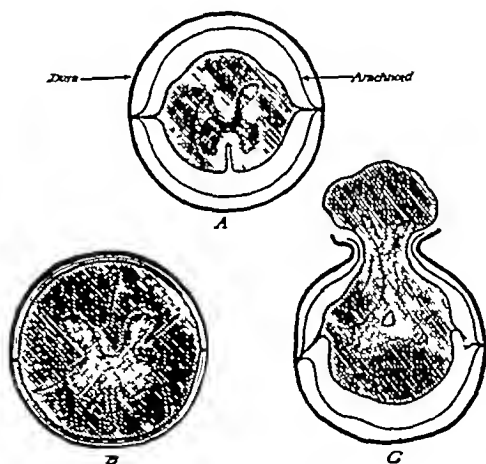


Fig 9 A spinal cord—edematous and swollen as a result of trauma—will fill the dural sac and exert great expanding pressure in all directions against its walls. Incision of the dura in such cases is likely to cause instant herniation of the cord with permanent loss of substance.

river, swollen and jammed with ice, invades and destroys the individual structures and communications of a valley down which it sweeps. Passing a knife blade through a spinal cord in this state will not repair the damage and would probably add to it.

What, then, can one accomplish for

these patients? The key to the answer lies in the hope—which is very often a fact—that the destruction of tissues is not as great as would appear at first, in the same way that after a flooded river subsides, it is found that many structures and lines of communication, which were

in this paper will serve to illustrate this point

P C, a forty-one year old laborer who fell down a flight of stairs, was brought to the hospital immediately afterward with a complete tetraplegia, loss of all sensation below the level C-4, paralysis of the bladder,

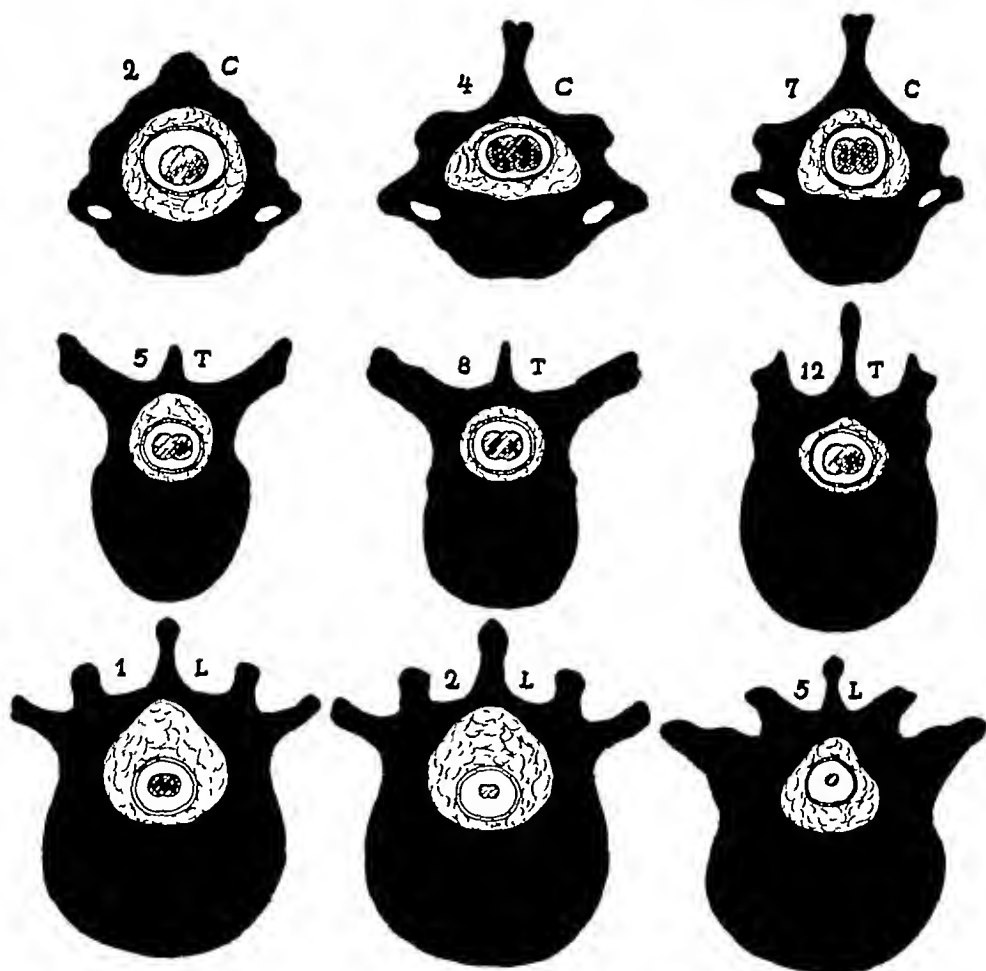


Fig 10 The diameter of the spinal cord is normally only about one-half the diameter of the neural canal—so that a fifty per cent encroachment upon the bony canal may take place before compression of the cord begins (The figures here shown have been traced directly from cross sections of a frozen cadaver¹)

at first thought to be hopelessly destroyed, can be salvaged, and with effort made to function again to some extent. In a relatively large number of patients this is true. The return of function is usually not complete, although it may be nearly so. This is particularly true of the legs, while the hands, for reasons explained above, lag behind. The first case cited

abolition of tendon reflexes in the lower extremities, and a total spinal block. His x-rays showed no fracture (Fig 1). After about ten days of rest in bed he was able to flex both knees and thighs but was unable to move his toes and ankles, but was still unable to move his hands. A month after his accident he could move both legs quite well. The hands were still paralyzed, however, and there was appearing some atrophy

Three months after the accident he had regained some movement in his wrists and fingers in spite of which the atrophy appeared more marked than at previous examination. Eight months after the accident he is out of bed all day with fairly good use of his legs (Fig 6). Although he is now

by pressure applied at periodic intervals over the bladder (Crede). If the urine is already infected when the patient is first seen, free drainage is of course, necessary.

3 *Physiotherapy* during period before return of spontaneous movement—passive motion, massage, and heat—to maintain circu-



Fig 11 and 12 Extreme deformities of the cervical spine, such as those here shown frequently occur without producing any serious symptoms of cord compression. (See a similar case represented in Fig 2)

able to move his wrists and fingers freely, the atrophy and deformity, typical of the so-called "spinal hand" is present (Fig 5).

The important points in the treatment of hematomyelia are these:

1 *Prevention of bed sores*. This is accomplished by the use of air mattresses and meticulous nursing care.

2 *Prevention of urinary infection*. This is best accomplished by the excellent method of "tidal drainage" recently described by Munro.¹ Repeated catheterization and the use of the ordinary retention catheter are to be avoided, whenever possible, in all cases not previously infected, since they invariably result in cystitis and other undesirable changes in the bladder. Establishment of an automatic, overflow bladder in the absence of infection is usually preferable to catheterization. Emptying can be aided materially

by pressure applied at periodic intervals over the bladder (Crede). If the urine is already infected when the patient is first seen, free drainage is of course, necessary.

4 *Systematic exercises* after spontaneous movement has appeared. These exercises should be graded according to function and must occupy the greater part of the patient's waking day.

The end results of conservative treatment for hemorrhage into the spinal cord (hematomyelia), if these rules be strictly followed, are very gratifying. In our series of cases, out of twenty cases of total tetraplegia, presumably due to hematomyelia, ten died within a period of a few hours to a few days, largely with pneumonia. Of the ten cases surviving the initial period of trauma, eight showed a very large return of function, approaching normal in the legs, but less in the hands. Two patients showed no improvement

V Edema of the Cord

Edema of the cord occurs in every spinal injury which is severe enough to produce neurological symptoms. In the *acute* initial stages immediately following the accident, it is a very important factor in the production of symptoms. It is the most frequent and usually the most important cause of manometric block in the spinal fluid during the first forty-eight hours following trauma, a point not sufficiently appreciated. It constitutes a great threat to the life of the patient when the spinal injury occurs in the upper cervical region. Yet it is a subject to which very little attention has been directed.

From the *pathological* standpoint the important fact is that *the spinal cord is capable of quickly swelling to about twice*

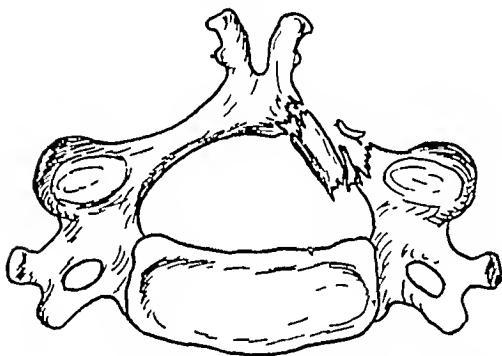


Fig 13 Comminuted (depressed) fractures of spinous processes and laminae constitute almost the only fractures where laminectomy is unquestionably indicated

its normal size within a very few minutes after being traumatized. In this state it completely fills the dural sac and distends it under considerable pressure. The microscopic appearance of such a distended cord is contrasted with that of a normal cord in Fig 7 and 8.

From the *clinical* standpoint the important point to be determined is whether, in the presence of such a swollen edematous cord, the dura should be opened widely as a decompressive measure, or should be left closed. On this point there exist two widely divergent opinions. The writer feels, however, that both reason and experience council the conservative course. Theoretically, with the cord so edematous and tense, there would be great tendency

to sudden herniation and spontaneous rupture if any opening, whatever, were made in the limiting membrane of the cord—represented here by the dura (Fig 9).

That this *does* actually occur when the dura is opened under such circumstances was pointed out a good many years ago by Taylor,¹ of this city, who reported at that time two cases in his own experience in which this had happened. In each instance the patient, although temporarily paralyzed at the time he was taken to the operating room for laminectomy, was comfortable, and, excepting for the paralysis, in good general condition. In each instance when the dura was opened there was an instantaneous and violent extrusion of the cord through the incision. In one case fully two inches of the cord was thus blown out within a few seconds. In each instance the two patients immediately developed hyperthermia and shortly afterwards died. It has been this writer's fortune while an onlooker in two different cases to observe the same phenomenon. Two other quite similar cases have been reported to the writer in detail by another physician.² Our own records at Bellevue Hospital contain another somewhat similar case.

It would seem that we are considerably more advanced in our understanding and treatment of *cerebral* edema than we are in our understanding and treatment of *spinal* edema. We have learned, for example, that the great majority of *cerebral* concussions will do better if treated conservatively than if decompressed surgically. Instead of operating we now combat *cerebral* edema with physiological rest and *dehydrating* agents. The same principles of therapy, the writer feels, should apply to the treatment of spinal edema. He, therefore, advises against surgical decompression and recommends the intravenous injection of fifty per cent glucose (50–75 cc) every three or six hours during the first two or three days.

VI Continuing Pressure Upon the Cord Caused by Residual Bony Deformity

In almost all fractures of the spine there remains some degree of bony deformity, which, if gross enough, may exert continued pressure upon the cord,

and be in part responsible for neurological symptoms

The importance of this residual bony deformity in producing or prolonging neurological symptoms is, however, in the opinion of this writer, far less than is usually assigned to it. This opinion is based partly upon the anatomical fact that the diameter of the spinal cord is normally only about one-half (in places one-third) of the diameter of the bony canal,⁸ so that approximately a fifty per cent encroachment upon the lumen of the canal is necessary before serious compression of the cord begins (Fig 10)

Even after this degree of encroachment has been reached the cord has considerable capacity for accommodating itself to a change in shape. This has been clinically demonstrated many times in cases of Pott's disease of the spine where extreme deformity frequently occurs without any neurological signs. Even in our series of *acute* spinal injuries there is ample proof that considerable encroachment upon the lumen of the bony canal may take place without causing paralysis. To illustrate

Fig 11 shows a pathological fracture of the cervical spine which occurred suddenly. There exists a bizarre distortion of the spine and there must be almost total obliteration of the bony canal at several points. In spite of this, however, the patient walked into the hospital complaining only of pain in the neck.

Fig 12 is an x-ray of the cervical spine of a man who fell down a flight of stairs with a one hundred pound sack of coal resting upon his neck and shoulders. There is an extreme anterior displacement of C-1 upon C-2, amounting to almost the full anterior-posterior diameter of the body of the second vertebra. Yet this man's chief complaint was slight pain in the back of the neck.

Fig 2 (discussed earlier in the paper in another connection) also shows an extreme forward dislocation of C-5 upon C-6, brought on acutely by a fall. There is present about a sixty per cent overriding of the vertebral bodies. Yet when examined some hours after the accident, this patient gave no serious subjective symptoms of cord compression.

Correction of deformity is generally desirable, however, in all cases of fractured spine regardless of the degree of cord compression resulting from the de-

formity, for the reason that any deformity, if uncorrected, tends to become progressively worse and so may eventually produce greater symptoms.

Deformities tend to follow rather fixed patterns, determined more or less by the site of the injury and the initial force of the trauma. A resume of the typical spinal fractures with their resultant deformities is given below, together with brief discussion of the *rationale* and methods for correcting each type of deformity.

Satisfactory reduction is possible in almost all instances by "closed" nonoperative procedures. In the opinion of the writer, correction of the deformity by operative measures is indicated in only the rarest instances. In most cases, it is his opinion that surgery is not only ineffective, but definitely harmful.

After the correction of the bony deformity the treatment of a fractured spine is the same as the treatment of hematomyelia or edema of the cord, as outlined in the preceding parts of this paper.

1 Commuted fracture of the lamina (Fig 13) This type of fracture is exceedingly rare. It is produced by the direct force of a heavy instrument directly against the spines of the vertebra. This is one of the very few fractures of the spine where the writer believes that open operation is definitely indicated. Laminectomy should be performed as soon as possible and all bony fragments removed.

2 Fracture-dislocation of the cervical spine A very special function of the cervical spine is mobility. The head must not only move forward and backward, to right and to left, but also must rotate around the long axis of the body, and for this reason all facets along the cervical vertebrae are shallow, and all articulations are extremely loose. These anatomical and functional facts predispose the typical "fracture-dislocation" of the cervical spine, which is by all odds the most common fracture encountered. In these cases a sudden throwing of the head forward puts extreme stress upon the relatively weak articular processes of the spine, one or both of which at any particular level may be broken off. When the articular process on one side only is broken, a slight

forward rotation of the upper part of the spine takes place, when the articular processes on both sides of the vertebra are broken there is a general slipping forward of that part of the cervical spine about the level of the fractures (Fig 14 and 15)

Reduction of fracture-dislocations of

Several methods of applying this principle have been devised. Dr Alfred Taylor,¹ many years ago, advocated the reduction of deformity by "halter-traction" and immediate immobilization in a plaster cast extending from beneath the chin and occiput down over the shoulders and chest (Fig 16-A). We have employed

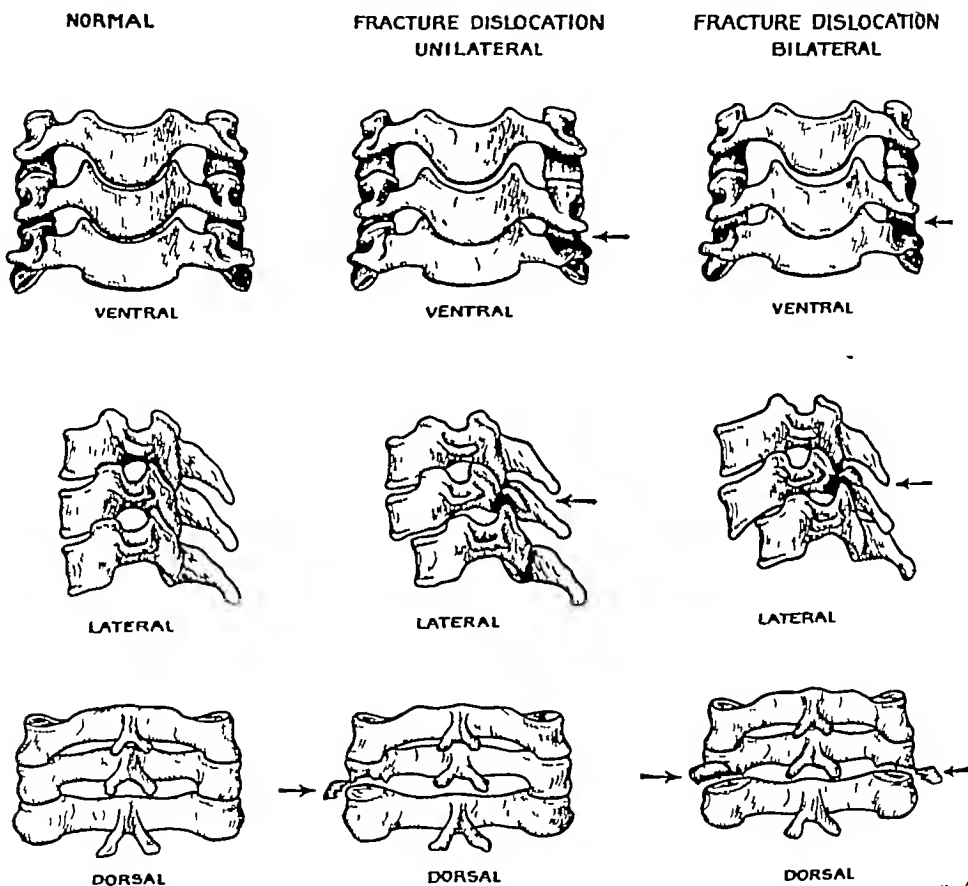


Fig 14 A typical "fracture-dislocation" of the cervical spine results from a breaking off of the articular processes on one or both sides of a given vertebra. This permits either a forward rotation (if the fracture is unilateral), or a complete forward slipping of the entire upper part of the cervical spine (if the fracture is bilateral)

the cervical spine are best accomplished, in the writer's opinion, by nonoperative measures, based upon the well-acknowledged fact that sustained traction upon the head along the longitudinal axis of the spine will easily and quickly overcome the spasm of the muscles of the neck, permitting the falsely locked bony parts to be disengaged, and allowing almost perfect realignment (Fig 17)

this procedure at Bellevue Hospital many times with most satisfactory results. A brief account of a fracture-dislocation of the cervical spine treated by the Taylor method is here given

A boy of nineteen years was riding in the back of a truck which collided with another. He suffered an immediate quadriplegia, with retention of urine. The first x-ray taken of the spine failed to show any



Fig 15 Fracture-dislocations of the cervical spine as above described are by all odds the most frequent spinal fractures. These usually involve the fifth or sixth cervical vertebrae—as shown in these x-rays



fracture (Fig 17-A). By pulling the shoulders down, however, exposure of C-6 and C-7 was obtained, which revealed a typical anterior "fracture-dislocation" of C-6 upon C-7 (Fig 17-B). "Halter-traction" relaxed the muscle spasm and allowed normal realignment of the spine (Fig 17-C). A plaster cast was then applied to the neck and body (Fig 17-D). When discharged from the hospital some six months later, without cast or brace, the boy was able to walk alone and had about 70 per cent return of function in both upper and lower extremities.

Another ingenious method for treating these fractures has been proposed by Crutchfield,⁴ who has devised a set of "tongs"—resembling ice-tongs—which he applies directly to the bones of the skull and by means of which he is able to exert true skeletal traction in reducing the muscle spasm in the neck (Fig 16-B). The writer's experience with this method

is too limited and brief to justify him in making a comparison between this method and the earlier method of Taylor. It is true that the "tongs" are much easier

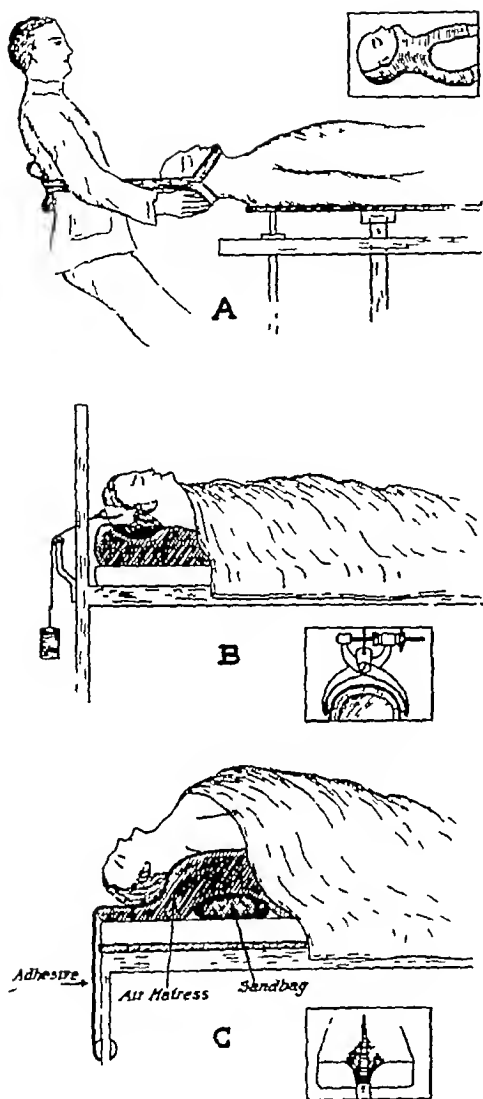


Fig 16 Fracture-dislocations of the cervical spine are best reduced by nonoperative measures. Three satisfactory methods of reduction are here pictured (A) Taylor method, (B) Method of Crutchfield*, (C) Stookey method

to apply than is the plaster cast, and are certainly more comfortable for the patient, but whether the lack of fixation is "desirable" or "safe" has not been settled to the writer's complete satisfaction. In any event, however, Crutchfield has made a distinct contribution to our ideas on this subject.

A third method for reducing cervical

fractures was evolved by Stookey⁵ at Bellevue Hospital several years ago, in which work the writer had the pleasure of assisting him. The essential feature of this method is an air mattress, at the head-end of which a deep "trough" is made by means of a broad band of adhesive tape which is fastened to the upper surface of the air mattress, carried over the end of the mattress, pulled strongly downward, and fastened to the frame of the bed (Fig 16-C). The head and neck rest in this "trough" in a position of acute hyperextension, maintained by the weight of the head itself. Although quite simple, this method has proven very effective, especially in the simpler fractures.

Laminectomy not only is unnecessary in these cases, as pointed out in the above paragraphs—but may even be dangerous. By further weakening the ligamentous and muscular support of the bony spine, laminectomy greatly increases false mobility, with added danger to the cord.¹⁴

3 Compression fractures Although compression fractures may occur at any level of the spine, by far the greatest number affect the twelfth thoracic or the first lumbar vertebrae. There is an anatomical reason for this. In the lumbar spine, in contrast to the cervical spine, great mobility is undesirable, and strength to support the great weight of the body is the prime objective. As a result, articular processes are strong and heavy, and the articular facets are deeply placed, so that fracture-dislocation, such as takes place in the cervical spine, is practically impossible (Fig 18-A and B). In these vertebrae, motion is limited to a slight forward and backward rocking of one vertebra upon another. Attached to these limited joints from above is the rigid and very heavy "thoracic cage." Any sudden force which throws this heavy structure violently forward tends to force the lumbar articulations past their normal limits of motion. In the neck this would result in a fracture of the light articular processes—and "dislocation", but in the lumbar region, because of these strong and deeply placed articulations, fracture-dislocation rarely takes place. Instead, the articulating facets act as fulcrum in such a way as to bring the bodies of the vertebrae closer together with considerable force. Under

* Tongs made by Pilling, Philadelphia



Fig 17 Reduction of a typical fracture-dislocation of the cervical spine by the method of Taylor, (See text and Fig 16-A), is here recorded in x-rays. The fracture was hidden by the patient's shoulders when the first x-rays were taken (A), but was revealed when the shoulders were pulled downward (B). "Halter-traction" upon the head easily relaxed the spasm of the muscles of the neck and permitted good realignment of the vertebral bodies (C), which was maintained by application of a plaster cast (D). The tetraplegia of this patient rapidly improved after reduction of deformity.



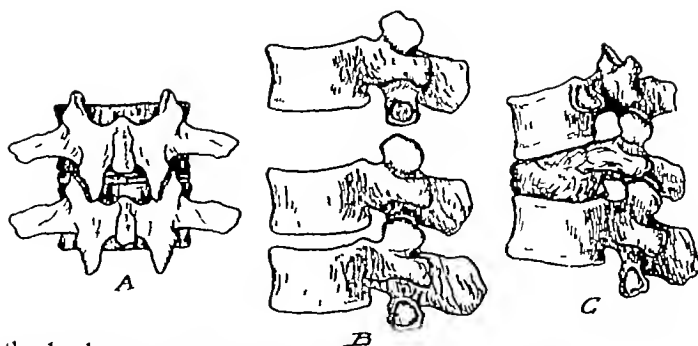


Fig 18 In the lumbar spine the articular facets are so broad and deep, and the articular processes so strong (A & B), that fracture-dislocation, as found in the cervical spine, almost never occur in this region. Instead, in the lumbar region compression fractures of the bodies of the vertebrae (C) are the rule

this compression force the internal structures of the bodies give way and the so-called "compression fracture" results (Fig 18-C and 19)

The twelfth thoracic and the first lumbar vertebrae succumb most frequently, they lack on the one hand, the support given to most of the thoracic spine by the long overlapping spinous processes, and by the ribs, while on the other hand, they have not yet acquired the great size and

strength of the lower lumbar vertebrae

The most rational and effective method for reducing this type of deformity is *hyperextension* by mechanical measures. (Fig 20) Actual bony encroachment of the neural canal in these cases is practically negligible, (verified by exploratory operation in two of our cases),* and the symptoms which accompany them

* Also verified at operation in one case by Dr Taylor¹



Fig 19 Compression fractures most frequently involve the bodies of the 12th thoracic or the first lumbar vertebrae

are due largely to hemorrhage within the cord, edema, internal disarrangement within the cord resulting from sudden angulation, and changes of length. Laminectomy could do nothing to relieve injuries of this type, nor could it possibly repair the crushing damage done to the body of the vertebra. On the other hand, laminectomy, with removal of the vertebral spines and the laminae, would, to a very considerable degree, reduce the effectiveness of any mechanical measures taken to correct the deformity by means of hyperextension.

Following correction of the bony deformity by hyperextension, the treatment then becomes the same as that for hematomyelia, and edema of the cord, which has been discussed in detail in the preceding sections of this paper.

4 Fracture-dislocations of the thoracic spine The thoracic vertebrae are so strongly reinforced by their overlapping dorsal spines, and by the ribs (Fig 21 A and C) that they are seldom fractured. The very occasional compression fracture of a vertebral body which does occur, is, of course, treated in the same manner as a compression fracture of the lumbar region. Whenever trauma occurs which is great enough to produce a "fracture-dislocation" of the thoracic spine, it is usually trauma of such violent nature that it plays havoc with the spine and associated structures—fracturing, comminuting, and badly dislocated two or three vertebrae, as well as adjacent ribs (Fig 21-B and 22). This is the type of injury which occurs when a patient falls from a high building and lands upon a fire-escape, or which occurs in violent automobile accidents where passengers are thrown out against trees or posts.

The spinal cord in such cases is usually completely severed, leaving total flaccid paralysis, urinary retention, and abolished reflexes. All three cases of fracture-dislocation of the thoracic spine in our series were of this type.

Unfortunately, there is little to be done excepting to make the patient comfortable

VII Delayed Secondary Changes in Spine Following Trauma

In some cases degenerative changes in the bones of the spine are not present immediately after injury or during first hospitalization, but subsequently appear, weeks or months later (Fig 23). The

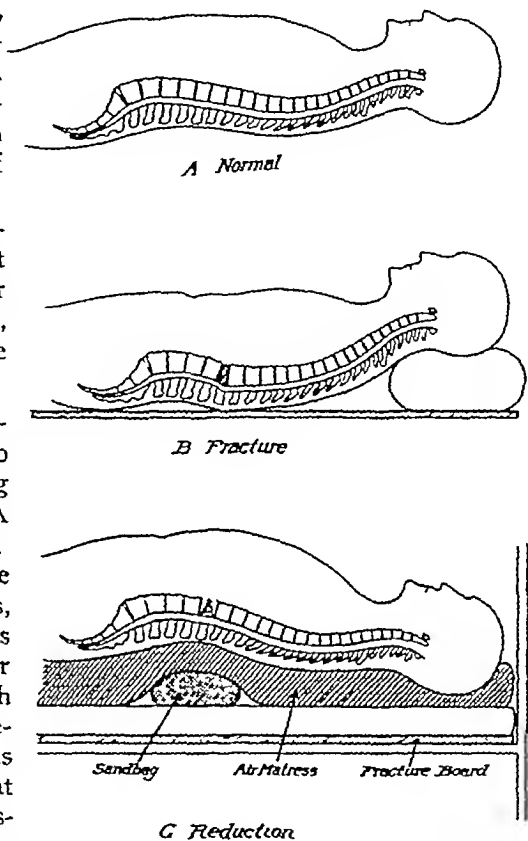


Fig 20 Hyperextension of the spine is the most rational and effective means of correcting the bony deformity resulting from a compression fracture of the body of a spinal vertebrae.

nature of these changes, or the mechanism involved, is not clear. They may be upon the basis of destructive arthritis, or upon the basis of thrombosis of nutrient arteries going to the bones.

Mention of this fact is made, however, because of the possibility of legal complications arising out of such late changes, against which proper precautions should always be taken.

Summary

1 Analytical review of cases of spinal

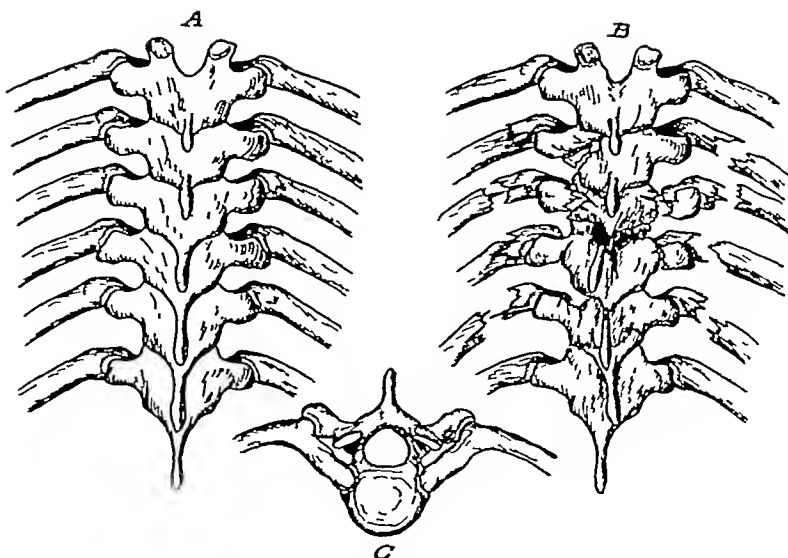


Fig 21 The thoracic spine is strongly reinforced by the over-lapping spinous processes of the vertebrae and also by the ribs, (A) and (C). Any force strong enough to cause a fracture-dislocation of this part of the spine usually produces extreme, severe, comminuted fractures of several vertebrae and their corresponding ribs (B)

injury received during a period of five years on the neurological service at Bellevue Hospital establishes the fact that there is no quantitative relationship between the extent of injury to the bony spine and the extent of injury to the spinal cord

2 The neurological symptoms following spinal trauma are found to be due to four factors

a Laceration and crushing of nervous tissue by moving bony fragments of bone at the time of original trauma

b Hemorrhage into the cord

c Edema of the cord

d Continuing pressure upon the cord caused by residual bony deformity

For this reason the writer suggests the more common use of the term "spinal injury" rather than such limiting terms as "spinal fracture," "hematomyelia," etc

3 A clinical, x-ray, and pathological correlation of these four factors has been made in this paper, with brief citation of case records to illustrate principal points

4 The *rationale* and methods for treating each of these four factors is presented

5 Nonoperative methods of treatment yield good results. Surgery, in the writer's opinion, is strongly contraindicated except in the rarest instances



Fig 22 Fracture-dislocations of the thoracic spine occur only after the most severe trauma, as when a person falls from a great height or is thrown from a rapidly moving car against a tree. There is little hope for functional recovery in these cases because the cord is usually completely severed.



Fig 23 Late degenerative changes in the bones of the spine sometimes appear weeks after the trauma occurred. A typical instance is here shown. (A) shows a cervical spine of a man brought to the hospital with a slight trauma to the head, but without any signs referable to the spine. Three months later X-rays of the cervical spine, taken in the course of a routine follow-up, revealed extreme degenerative changes in the bony vertebrae with marked fracture-dislocation at C-6. This type of change offers medicolegal complications.

(X-rays shown through the courtesy of Doctor C. H. Pohlmann of Middletown.)

References

- 1 Taylor, Alfred S. *N Y Med Journal* 107 583, 918.
- 2 MacLean, J. A. Personal communication.
- 3 Eyeleshymer, A. C., and Shoemaker, D. M. *A Cross Section Anatomy*. D. Appleton & Company, New York, 1923.
- 4 Crutchfield, W. G. *Southern Surgeon* 2 156, 1933.
- 5 Stookey, Byron. *Am J of Surg* 26 513, 1934.
- 6 Taylor, Alfred S. *Amer Surg* 90 321, 1929.
- 7 Munro, J. H. *New England J of Med*, 212 229, 1935.

FOUR O'CLOCK FATIGUE

It is generally conceded that the morning is the time most conducive to good work whether it be physical or mental. At noon we pause—and should relax—while we stow away a little provender to replace the fuel that has been utilized in the forenoon's activity.

After getting under way again, it is the customary experience to find a tendency to earlier slowing down of work than before. Along about 4 o'clock there is a perceptible lagging of effort. In the hot Spanish-speaking countries of the western

hemisphere, a *siesta* is observed which affords recuperation through an afternoon nap.

The four o'clock coffee habit of the Scandinavians and the Englishmen's afternoon tea are also excellent means of coping with this afternoon fatigue. In this country there is a tendency to popularize the cocktail hour, which, however, is far less satisfactory. Something should be done, however, to promote a properly observed 4 o'clock pause—*The Journal-Lancet*.

SILICOSIS IN MODERN FOUNDRIES

Study of the Incidence

JOHN F KELLEY, M D and ROBERT C HALL, M D, *Utica*

On September 1, 1935 silicosis was included as a hazard compensable under the State of New York Workmen's Compensation Law for foundry workers. Prior to that time, in a space of a few years, a number of law suits had appeared on the court calendars against industries who have a dust hazard, but were not included under compensation. Silica dust as the aggravating factor in the production of certain types of pneumoconiosis has long been recognized, and the association of tuberculosis and silicosis in workers exposed to such dust for long periods is too well-known to warrant detailed discussion. The purpose of this paper is to point out some aspects of the problem as determined in a group of workers in three foundries in Utica.

These examinations and studies were performed at the request of the foundry owners following the incorporation of silicosis as a compensable disease. Up to this time very little was known of silicosis in the foundry industry. No group of examinations had been made on which to base the incidence of silicosis occurring in foundry workers. In fact, so little was known about it that a state of uncertainty bordering on hysteria was manifested both by the insurance carriers and the foundry owners. During this period of unrest, the insurance companies set a premium which was prohibitive for employers to pay on employees without an examination. Their only recourse was to have these examinations made with the understanding between themselves and the insurance carriers that any men suffering from silicosis would not be employed. This opened up a rather serious problem, as it left the employers liable to suit by the discharged workmen, especially if they had been in their employ a number of years. Up to the present time, this problem has not been solved satisfactorily.

Method of Examination

The method of examination, as agreed by carriers, employer, and ourselves, was decided that all men were to receive a physical and an x-ray examination, these to be independent of each other, and the findings to be reported to the employer, and retained by the insurance carriers, who again examined the plates and the physical examination forms. A blank, general in character with a few details pertaining to the chest, was composed for the examination. The points stressed in the examination were chest expansion, auscultation, cough, dyspnea, and weight. In making the x-ray examinations, 100 milliampere technic was employed, varying the voltage to the thickness of the chest and keeping the time between one-tenth and one-twentieth of a second, single films were made at a distance of six feet. The cases were classified as first, second, and third degree stages of silicosis, and there was another large group of cases with an exaggerated pulmonary pattern or increased perilymphatic fibrosis which we classified as "dusty lungs." These men had been working many years in the foundries, but still had none of the nodulation of silicosis. The problem was to determine the incidence of silicosis, tuberculosis, and other pulmonary diseases in these workers. The examination was divided into two parts—history and physical examination. In the history, previous employment in foundries or other dusty occupations were carefully noted. Generally, complete denial was made of any previous respiratory disease, so that outside of the occupational history the past history was more or less useless. On physical examination, all authors on the subject¹ of silicosis and pneumoconiosis give as the cardinal signs of silicosis, loss of weight, dyspnea, and limitation of expansion of

the chest. In this series all these signs were more or less variable and inconsistent, and in none of the cases, which had silicosis, did we find loss of weight. Dyspnea was present in only one case. Limitation of expansion was fairly constant, being found in three of the four frank cases of silicosis. It must be borne in mind, however, that in this series of examination, no second or third degree silicosis was found. One physical sign, which was found in practically ninety per cent of the cases showing perilymphatic fibrosis or nodulation in the x-rays, was coarse breath sounds both anteriorly and posteriorly in the lungs. This could only be described as wind or air blowing through a rather large pipe.

A total of 403 examinations were made in the three foundries. Two of the foundries employed between 150 and 200 men in each, while the third employed about fifty men. A marked difference in these three places was noted in the occurrence of the disease. In the small foundry, two of the four cases of silicosis were found, and a large percentage of the cases with perilymphatic fibrosis, which we termed "dusty lung." In both of the large foundries every effort had been made to overcome the dust hazards in the past ten years. All the latest precautionary devices for the removal of dust have been utilized. In the small foundry no unusual precautions have been taken to overcome the dust hazard. In foundry workers, outside the moulders and shaker-outs, very few of the men were exposed to any appreciable concentration of dust.

Silicate Content in Sand

The percentage of silicate in their moulding sand, which was determined by one large foundry, was 79.6 per cent. No record was obtained from the other plants as to the silicate content of their sand, but it is understood that the normal silicate content in sand is approximately eighty per cent.

On analyzing Table I, it will be noted that a total of 403 cases were examined. Of that number 363 cases were negative, a percentage of 90.07. There were four cases of first degree silicosis, a percentage of .99. One case of silicosis with tuber-

culosis, making a percentage of .25, or a total percentage of 1.24 cases of silicosis. Of those classed as "dusty lung" there were 30 cases, giving a percentage of 7.45. It is evident that the percentage of silicotics in this series of cases is very low, with no cases above first degree.

In analyzing Table II, it will be noted that in Plant I, there are fifty employees. Out of that fifty there were two cases of silicosis. In this plant, which was a very small place, none of the modern aids for

TABLE I

	<i>No</i>	<i>Percentage</i>
<i>TOTAL 403 cases</i>		
Negative	363	90.07
Dusty Lung	30	7.45
1st Degree Silicosis	4	1.24
T.B. and Silicosis	1	.25
T.B.	4	.99
T.B. and Dusty Lung	1	.25
<i>Total</i>	<i>403</i>	

eliminating dust had been utilized. In Plants II and III, which are large modern plants in which all the present accepted methods for the removal of dust had been installed, there were only two cases of first degree silicosis out of a total of 353 cases examined.

In analyzing Table III, it will be noted that the moulders, who are by far the largest group, had three cases of silicosis, the shaker-outs, which are a rather small group, had one case. It is in these two groups that most of the exposure to dust occurs in the foundry.

On Table IV, insofar as silicosis is concerned, in analyzing it will be noted that the ages run from forty-four to sixty, the average age being fifty-two. As to the number of years in which these cases worked in the foundry, a man with slight nodulation aged fifty-two, worked for five years as a shaker-out, in which there is always a large concentration of silicate dust present. The other men, all moulders, worked from seventeen to forty-seven years, the average being thirty years, and none of these cases had more than a first degree silicosis. The other portions of Table IV are self-explanatory.

Discussion

Following these examinations, as you will note from the tables we were all

rather agreeably surprised at the low incidence of silicosis in these three foundries. It is our belief that because of the small number in this series, and due to the fact that the two large foundries had all the latest devices for the prevention of dust concentration, that this percentage is very low. On comparing them with the results found by Pope and Zacks,² who examined ten foundries in the state of Massachusetts, our percentage of silicosis cases is much lower. They found 88 per cent uncomplicated silicosis and 26 per cent silicosis and tuberculosis—for a total percentage of 114 per cent in two thousand examinations. It was also rather forcibly brought to our attention, as it happened so many times, that certain statements regarding symptoms start in text books and are carried on traditionally through other text books, such as loss of weight,

dyspnea, and limitation of respiration are symptoms of the late stage of silicosis, and are not present in the early silicotics. From physical examination alone a diagnosis of silicosis in any stage cannot be made, although in the third stage it is possible to be suspicious of its presence. Although a diagnosis may be made of silicosis on an x-ray alone, we believe a combination of x-ray and examination is the only safe method.

Conclusion

Instances of silicosis in this series is low as compared to a similar study made in Massachusetts. The occurrence of silicosis in foundry workers, as shown by this series of examinations, and those made in Massachusetts, is relatively low compared to other dusty industries, and is not as

TABLE II

Plants	Total	Silicosis	T B	T B and dust	Silicosis and t b	Negative
No 1	50	2	2	1		45
No 2	169	1	1		1	166
No 3	184	1	1			182

TABLE III

Occupation	Total	Dusty	Silicosis	T.B. and Silicosis	T B	T B and Dust	Negative
Moulders	136	21	3	1	2	1	108
Shaker-out	17	1	1		2		13
Crane Op	4	1					3
Laborer	43	3					40
Tester	5	1					4
Machinist	8	1					7
Mechanic	2	1					1
Pattern Maker	6	1					5
Totals	221	30	4	1	4	1	181
Core makers							
Cask cleaners							
Cupola tenders							
Arbor men							

TABLE IV

Age	Chest examination	Yrs in foundry	X-ray findings	Occupation
TUBERCULOSIS ONLY				
23	T.B. upper rt apex	6	T.B. — both sides	Shaker-out
28	Negative	14	Scar — left apex	Moulder
27	Rales — upper rt apex	5½	T B	Moulder
39	Coarse	12	Old T B	Shaker-out
SILICOSIS				
52	Rales	5	Slight nodulation	Shaker-out
60	Coarse	47	Silicosis	Moulder
55	Coarse	24	1st degree silicosis	Moulder
44	Coarse	17	1st degree silicosis	Moulder
TUBERCULOSIS AND DUST				
39	Rt apex T B — rales	13	Rt apex dusty	Moulder
SILICOSIS AND T B				
50	Coarse — rales	26	1st degree T B	Moulder

great a hazard as was felt both by the employers and insurance carriers at the time this condition was incorporated in the compensation law. After reviewing the ages of these different workers, the number of years they had worked in the industry, and their job, it is our feeling that

First Men working as shaker-outs develop the disease much sooner than moulders.

Second In foundry workers in general the disease is developing over a long period of time, and never reaches the severity of other dusty industries.

Third As a hazard with the present modern appliances for the removal of dust, silicosis should not be considered a greater hazard than any traumatic injury occurring in the same industry.

There appears to be a relationship between concentration of dust and the time of exposure. The cutting down on the concentration hinders the development of silicosis, and workers in the foundry have to be exposed to the dust for a long period

of time before development of the disease. A close study of the statistics also discloses the very valuable information that all employees exposed under the same conditions do not develop silicosis. This may be attributed to a natural or an acquired resistance.

What to do with the men who were found to be silicotics is still an unsolved problem. From their examination, and the years they worked in the foundry, we believe they should be put back on the jobs which have the lowest dust hazard. Those who have tuberculosis, of course, should be placed in sanitarium, and in the individual cases found in these examinations, that was done.

Physical signs, except in late stages, are noticeable by their absence.

258 GENESEE ST

References

1. Truman G. Schnabel. *Cyclopedia of Medicine*,
v. III, 408. Osler, p. 653.
2. Pope and Zacks. *Amer Rev of Tuber*. Sept.
1935.

USE OF RADIUM IN STERILIZATION

Sterilization by irradiation when properly administered by a trained therapist, is effective and at the same time produces "no untoward effects," Dr. Ira Kaplan, director of the division of cancer in the Department of Hospitals, said in a symposium on sterilization at the New York Academy of Medicine on Nov. 24.

The symposium was held as a regular meeting of the section of obstetrics and gynecology of the academy, sterilization being discussed from the viewpoints of eugenics, obstetrics, therapy and other approaches. Dr. Arthur Mitchell Reich, who presided, emphasized that the material presented by the speakers was "purely informative" and that it did not "imply an indorsement of this body of these measures."

Irradiation sickness might occasionally occur from this type of sterilization, Dr. Kaplan said, but this condition was relieved with cessation of the treatment.

"When radium is employed," Dr. Kaplan said, "proper surgical precautions are essential to prevent infection or perforation. Radium therapy must not be administered

in the presence of adnexal infection.

"In young women sterilization may be permanent instead of temporary, and in some cases sterilization by irradiation may not prove effective, requiring surgical procedures. To obtain effective results, it is essential that irradiation sterilization be carried out only by those properly prepared by training and experience in the employment of X-ray and radium therapy."

Dr. Kaplan added that the effectiveness of irradiation sterilization was equal to that of surgery "without the latter's associated mortality and morbidity."

Dr. Benjamin P. Watson, former president of the American Gynecological Society, reported that in the last five years 172 women had been sterilized at the Sloane House for Women. In each case, he said, sterilization was carried out in conjunction with some other operative procedure.

"Sterilization done along with abdominal hysterotomy in early pregnancy was performed in those patients having complications which rendered any further pregnancy hazardous," Dr. Watson said.

THORACOSCOPY AND INTRAPLEURAL PNEUMOLYSIS

Report of Fifty Cases

HARVEY B. POWERS, M D, *Lake Kashaqua*

There has been a marked tendency in recent years to broaden the indications of the use of artificial pneumothorax in the treatment of pulmonary tuberculosis. The presence of cavity, however, continues to be the most universal indication. Should pneumothorax fail to close the cavity within a reasonable time, continuance is not only useless, but the possibility of complications is enhanced. Inability to close cavity in a major percentage of cases is due to the presence of adhesions, and it is in these cases that one is tempted to use high pressure pneumothorax with the attendant danger of tearing adhesions, perforation of the lung, and empyema.

Here, intrapleural pneumolysis is desirable and is indicated as soon as it is demonstrated that the cavity or cavities will not close under ordinary pressures. We feel also that pneumolysis should be performed in instances where an adhesion is directly over a large cavity even though the cavity be closed and the sputum negative for tubercle bacillus. In several of our cases, in which pneumothorax was induced prior to the use of cautery, upon re-expansion of the lung three to five years later, the cavity was found still open.

The operation is not without risk and should be attempted only by a surgeon with skill and experience. The choice of method, whether electrocautery or surgical diathermy, depends upon the preference of the operator and the type of adhesion. Many adhesions appear in the x-ray film to be so situated as to render cautery impossible, but thoracoscopy has shown that many seemingly hopeless ones can be cauterized. For this reason, all doubtful cases should have a thoracoscopic examination.

The continued use of any one surgical procedure should be determined by its success or failure and, with this in mind, we have reviewed all cases in which cautery was used at Stony Wold Sanatorium. From January 1927 to July 1935, we at-

tempted artificial pneumothorax on three hundred cases. Of this number, thirty-six resulted in failure because of obliterative pleuritis. Of the remaining 264, 132 presented adhesions of a varying degree and of these, sixty-two (47%) or 23.4 per cent of the total did not interfere with a satisfactory collapse. Fifty or 37.9 per cent of the 132 presenting adhesions were thought suitable for cautery, but after thoracoscopy, two were impossible. The operations were performed at Stony Wold Sanatorium by Dr. E. S. Welles of Saranac Lake. Electrocautery was used in all cases.

Sex. All patients were females.

Age. The youngest patient was seventeen and the oldest forty-seven. The average was twenty-four years.

Stage. Nine or nineteen per cent of the forty-eight cases were classed as Stage II or moderately advanced. Thirty-nine or eighty-one per cent were Stage III or far advanced. There were two cases of bilateral pneumothorax.

Interval. The interval between the beginning of pneumothorax treatments and of pneumolysis averaged four and a half months, the longest eleven months and the shortest six weeks. There is no rule as to the length of time artificial pneumothorax should be continued before pneumolysis is attempted, but it should be done when it is shown that the cavity cannot be collapsed without the use of undue high pressures.

Results. Pneumolyses have been considered technical successes if all interfering adhesions were cut and clinical successes only if the sputum became negative. Of the forty-eight cases, forty-three or eighty-nine per cent were termed technical successes and forty-one or eighty-five per cent clinical successes. The seven cases continuing with positive sputum were unsuccessful for the following reasons:

There was one case of pleurobronchial fistula following cautery with death occurring from extensive disease in the opposite lung. In two cases, a positive sputum was obtained, but it was our opinion that it came from lesions in

the opposite lung. One technically successful pneumolysis, in which all adhesions were severed, failed to collapse the cavity. In another technically successful case, in which the patient had a very satisfactory collapse, it was necessary to prematurely re-expand the lung because of extensive progressive disease on the opposite side. Two other patients, in spite of cautery of most of the adhesions, never obtained an effective collapse.

Postoperative. Fifty-one per cent of the patients were without fever, forty-nine per cent had elevations of temperature of 99.2° to 104.0°F. In only one, the latter, did fever continue for any prolonged period. Post-operative shock occurred in one case. Four showed dyspnea and one a marked increase in cough. No bleeding from the cut adhesions that was not readily controlled was encountered. Great care was exercised before the patient left the table to see that there were no oozing or bleeding areas.

Fluid of the transitory type appeared in twenty-two or forty-six per cent of all cases and persistent fluid (that requiring aspiration one or more times) in thirteen or twenty-seven per cent. None of these became purulent.

Mediastinal herniation of varying degree occurred in fifteen cases. Subcutaneous emphysema occurred in fifty per cent of the cases, but was not serious in any of them.

More serious sequelae. Tuberculous empyema followed cautery in three cases. Two cases developed purulent fluid at a date sometime after operation and one as an immediate result following a pleurobronchial fistula. This case terminated fatally because of rapidly progressive disease in the opposite lung. In the other two, the pus was apparently absorbed. Empyema of staphylococcal origin was encountered in one instance. This was treated successfully by the closed method, by aspirating, washing with saline solution and with 1:4000 gentian violet. Pleurobronchial fistula occurred in

two cases. In one previously mentioned, a tuberculous empyema resulted. In the second, a bilateral pneumothorax case, there was no empyema. However, dyspnea was so marked that the opposite lung had to be re-expanded. The fistula subsequently closed. The untoward result in this case was the re-expansion of the opposite lung. This lung, unfortunately, became adherent and subsequent attempts produced only partial collapse and the cavity was still open. Rapid re-expansion within twelve hours following cautery occurred in one of the cases early in the series. Since then, it has been our custom to examine our patients with the fluoroscope when marked subcutaneous emphysema occurs or within twenty-four hours of the cautery. No similar complication has resulted since this practice was instituted.

Cutler,¹ in his series of cases, found pneumolysis indicated in seventeen per cent, Matson² in seventeen per cent and at Stony Wold eighteen per cent. Matson reports sixty-five per cent successes, Welles,³ in his series of cases outside of Stony Wold, eighty-five per cent and at Stony Wold eighty-five per cent.

Comment

From an analysis of the above cases, we believe that intrapleural pneumolysis is a valuable adjunct to the use of artificial pneumothorax. This is in spite of the cases of empyema. In all three, thoracoplasty would not have been possible because of bilateral disease.

References

- 1 Cutler, J. W. *American Review of Tbc*, 30 416, 1934
- 2 Matson, R. E. *Ibid* 29 233 1929
- 3 Welles E. W. *Journal Thoracic Surgery*, 1 601, 1932

A MORAL TO JUST A LITTLE SAMPLE

An innocent little sample was left on the desk of my friend Doctor. The sample was a medical one left by a leading pharmaceutical house—for cough.

A patient came in, the Doctor was very busy, he had no time to examine and prescribe for this coughing patient, so handed the sample to the patient and dismissed her.

The sample did the work and so the patient passed the label to her neighbor and this little label netted—fifty-one refills and the result—the druggist got his, but the Doctor got nothing and further deprived other Doctors of a good fee. There is a moral to "just a little sample," for 1937—Dr. A. R. Reder, in *Illinois Medical Journal*.

MANAGEMENT OF LABOR COMPLICATED BY RECTAL STRICTURE

With a Report of Eighteen Cases

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Rare entities superimposed upon gestation tend, of their very nature, toward the evolution and ultimate production of uncertain interpretation and management. The success or failure in the occasional case gives to the observer a false perspective correctible only by consulting the experience of others. When the sum total of accessible information is small, conclusions of certain value are drawn with great difficulty. This situation obtains in the problem of rectal stricture in the pregnant or parturient woman. Aside from occasional case reports (striking because of fatalities), the literature is poor and offers little assistance. Individual experience is limited because the complication is rare and seen for the most part in clinics carrying large numbers of colored patients. Over the six year period ending October 1, 1936, eighteen cases of rectal stricture complicating labor were seen by us on the Obstetrical Service of the Harlem Hospital. The case incidence approximates one in 1500. The mortality rate in the group was eleven per cent. Obviously, rectal stricture is a formidable complication in labor, requiring more study than has heretofore been granted to it.

The etiology of rectal stricture is debatable. The problem of the obstetrician transcends etiology. Whatever the causative factor, the obstetric situation is grave and its management a major problem.

It is unfortunate that the diagnosis of rectal stricture is rarely made previous to the onset of active labor (our experience). Several factors account for this. Rectal examination finds its earliest obstetric usage in the determination of cervical dilatation after the onset of labor. There is rarely indication for rectal examination in the prenatal period. The commonly

elicited history of constipation does not suggest digital exploration of the rectum. Constipation is the chief symptom of stricture in its earliest phases yet the patients themselves disregard the condition. There are no dramatic warnings of the presence of stricture. The patient in whom rectal stricture is found never notes the physical character of the stools, the examiner thus being deprived of what might be all-important facts in the history. Where stricture has been of sufficiently long duration to effect constitutional change, the attendant is faced with an emergency of tremendous proportions. The obvious solution to the diagnostic proposition is routine rectal examination early in the prenatal period. Where stricture and rectovaginal fistula coexist, there is no diagnostic difficulty since the presence of fecal matter in the vagina prompts immediate rectal examination, and stricture is thus discovered.

The gross pathologic anatomy recurs with monotonous regularity. The examining finger passes into the rectum a distance of one to two inches when it encounters a dense, annular constriction which narrows the lumen to a diameter of one to two cms. It is impossible to pass the finger through the constriction. Attempts to obtain digital dilatation are futile. We have seen one exception to this. The sensation conveyed to the examiner when he attempts forcible dilatation is that something will give way. It is folly to attempt dilatation of any type by any means since such procedure is invariably followed by definite advancement of the constricting process. Delivery through the birth canal may result in aggravation of a moderate stricture. This is purely theoretical. We have had no opportunity to demonstrate it because we

have had practically no opportunity for follow-up studies

Vaginal examination reveals involvement of the rectovaginal septum and the perineal body. The vaginal floor may be hard and rigid. Where rectovaginal fistula is present, the vaginal orifice of the fistulous tract usually lies close to the

out resistance into the rectum. The strictured area is almost entirely fibrous tissue yielding easily to an extending laceration. The vertex distending the perineum and placing undue stress upon the perineal body contributes to the danger. Wide or bilateral episiotomy may prevent difficulty. The repair of a third degree laceration in

TABLE I

Age	Parity	Wassermann	Pathology	Delivery	Morbidity	Weight of baby	Perineals
31	3	Neg	Rectal strict. Rectovaginal fistula	Spontaneous	Morbid undiagnosed	5 lbs. 7 oz.	Ample
24	2	Plus-minus	" " "	"	" "	6 lbs. 6 oz.	Ample
34*	2	Neg	" " "	"	" "	5 lbs. 11 oz.	Generally contracted
26	0	Neg	Rectal stricture	"	Non-morbid	5 lbs. 1 oz.	Ample
31	5	Neg	" " "	"	" "	7 lbs. 12 oz.	Generally contracted
26	1	One plus	" " "	Cesarean section	Morbid undiagnosed	6 lbs. 10 oz.	Generally contracted
29	0	Four plus	" " "	Mid-forceps Kiel- land-Dewees	" "	7 lbs. 6 oz.	Ample
20	0	" "	" " "	Spontaneous	Non-morbid	7 lbs. 7 oz.	Funnel
26	2	" "	" " "	"	"	5 lbs. 7 oz.	Ample
22	1	Two plus	" " "	"	"	7 lbs. 14 oz.	Funnel
29	4	Neg	" " "	"	Morbid undiagnosed	6 lbs. 5 oz.	Generally contracted
22	3	"	" " "	"	" "	6 lbs. 6 oz.	Ample
20†	1	"	" " "	"	Non-morbid	5 lbs. 7 oz.	"
31	1	Four plus	" " "	"	"	8 lbs. 4 oz.	"
25	0	Neg	" " "	"	"	2 lbs. 13 oz.	Generally contracted
23	5	"	" " "	"	Morbid undiagnosed	7 lbs. 3 oz.	Ample
25	2	"	Rectal strict. Rectovag fistula	"	Non-morbid	7 lbs. 4 oz.	"
24*	0	"	Rectal stricture	Mid-forceps Kiel- land-Dewees	"	"	"

* — Died (all others recovered)

† — White (all others negroes)

rectovaginal orifice. We have never demonstrated the rectal opening of the tract which probably lies above the actual stricture.

Such is the extent of constriction in the average case that we have but once been able to palpate the cervix or presenting part on rectal examination. Thus one exception permitted considerable dilatation of the stricture without undue effort.

The threat borne by this complication is threefold: laceration, infection, and rupture of the rectum. Lacerations of the vaginal floor, extending through the mucosa and into the pathologic zone in the rectovaginal septum may extend with-

diseased tissue is no sinecure. One case gave a history of such complication in previous labor. After several months she was repaired with a fair outcome.

Infection arises from two sources: fecal contamination due to concomitant rectovaginal fistula, the general depression of resistive processes common to stricture. The mildness of puerperal infection in the presence of fecal contamination of the birth canal is amazing.

Rupture of the rectum in parturition is the natural corollary of the pathologic sequelae of stricture. We have previously described¹ (as has Dorsett²) the coprostasis and static ulceration of the rectum

which occur with stricture. Weak, thinned-out, ulcerated areas in the wall of the rectum will not withstand the stress of parturition. The possibility of the rectal tube, used in administering enemata, being thrust through such diseased areas must be considered.

Certain facts of interest are obtainable from Table I. In the eighteen cases there was but one white patient. This is the usual experience. The ages of the patients extended from twenty to thirty-four years. There were four primiparae. The Wassermann was positive in thirty-eight per cent. There were eleven normal pelvises, five generally contracted (in no instance was the true conjugate below ten cm.), and two funnel pelvises. Four cases presented both rectal stricture and rectovaginal fistula. In addition, one case was found to have a chronic ulcerative proctitis.

In each case, there was obtainable a history of long-standing constipation but no patient had reliable information concerning the character of the stools. No patient was certain as to aggravation of constipation following previous delivery and no patient associated fistula with previous birth injury. The multiparae reported from one to five previous deliveries, all spontaneous. All previous puerperia were normal with two exceptions (We were unable to determine previous morbidity). In one of these, there was a postpartum parametritis and in the other a third degree laceration.

The vertex presented in seventeen cases and the breech in one. With the exception of one occiput transverse, all vertex presentations were anterior.

Fifteen cases delivered spontaneously with one death, a mortality of six per cent. There were three operative deliveries with one death, a mortality of thirty-three per cent. If, to our three operative cases we add those of Dorsett, also Games and McDowell⁸ (we have been unable to find any other reports in the literature), we attain a mortality rate of sixty per cent for cases of rectal stricture delivered operatively.

Morbidity was present in fifty per cent of the cases. In each instance the infection was mild and self-limited and no morbid case remained in the hospital beyond fourteen days. There was but

one fetal death, a two pound fourteen ounce premature.

The operative deliveries of which we have knowledge may be briefly mentioned. Dorsett's case was delivered by low forceps. Games and McDowell attempted delivery by low forceps and completed delivery by version and extraction. Of our cases, two were mid-forceps, one for deep transverse arrest, and the other for arrest at mid-pelvis with the vertex presenting as occiput anterior. One of these was the case above mentioned in which the rectal stricture was found readily dilatable. Our third operative case was delivered by cesarean section. She had had a third degree laceration with a previous delivery.

Necropsy was performed in three cases. In each instance, rupture of the rectum was found. This finding may well be predicted.

The facts as stated adequately define the gravity of this complication. The mortality figures, sixty per cent in operative and eleven per cent in spontaneous delivery (this latter entirely our own experience), are little short of astounding.

The key to the situation is early diagnosis. Every pregnant woman must be examined rectally as early as is possible in gestation. Upon the discovery of rectal stricture, alone or in combination with rectovaginal fistula, therapeutic abortion should be advised and following it, early surgical intervention. Where this is impractical (the religious viewpoint may enter) pregnancy may be permitted to proceed with elective cesarean section as the method of delivery at or shortly before term.

In the case first seen in active labor, the question of section may be complicated by other factors such as length of labor, condition of the membranes, etc. Certainly enemata should be avoided to prevent accidental rupture of the rectum. Where there is fecal contamination of the birth canal there should be no attempt at cleansing. This will serve only to advance infection higher in the canal. Labor should be conducted by abdominal examination and, at all odds, spontaneous delivery sought. Wide or bilateral episiotomy is advisable. If spontaneous delivery is impossible, if indication for operative intervention arises, cesarean sec-

tion is the procedure of choice. Where intraperitoneal cesarean is feasible, sterilization should be performed. If conditions are such that extraperitoneal section is indicated, sterilization must wait a later time.

Conclusions

Rectal stricture complicating labor is one of the most formidable problems of obstetrics.

Early therapeutic abortion is advisable when diagnosis is made early. Cesarean section is the best means of accomplishing delivery. It should be an elective proce-

dure. Where election has not been possible the patient, if permitted labor, should be delivered spontaneously. Indications for operation are best met by cesarean section. All cases should be sterilized at section if operative technic permits.

272 W 90 St
509 W 155 St

References

- 1 Kassebohm, F. A. and Schreiber, M. J. *Amer J Obs and Gyn*, April, 1936.
- 2 Dorsett, E. L. *Surg, Gyn and Obs*, March, 1920.
- 3 Gaines, C. D. and McDowell, J. F. *J.A.M.A.*, Sept. 19, 1936.
- 4 David, V. C. and Lauer, C. A. *J.A.M.A.*, Jan. 2, 1932.
- 5 Wright, L. T. Personal communication.

JAPAN'S BAD HEALTH SLUMP

The Association for Encouraging Science in Japan, in response to the general expressions of dismay about the fall in the level of the national health, held its first meeting to consider methods for coping with the regrettable situation. Medical experts from the cabinet departments, the deans of the medical departments of the imperial universities, and experts who were members of the association were present. It was decided to establish four sections of activity: eugenic, physical training, food, and clothing and shelter. The tuberculosis death rate is higher in Japan than anywhere else in the world, according to a letter from Japan appearing in the *AMA Journal*. More than 130,000 cases of acute

infectious diseases occur every year. Dysentery has shown a yearly increase. Trachoma and parasitic diseases are decreasing among students, school children and conscripts, but myopia and decaying of the teeth are increasing remarkably. Mental disease has also increased of late. The number of insane at present is 83,366, which means that there are more than twelve cases of insanity per 10,000 of population. The number of conscripts who pass the physical examination is decreasing every year, and the military authorities are afraid that half of the youth will be unable to pass the examination next year, in ten years this would bring about an alarming situation.

CHAMPION BLOOD DONOR

Raymond Briez works in the public markets of Paris, but he also has a thriving business of his own. He engages in the manufacture of blood, and since he entered the business in 1924 he has sold 257 quarts.

The output of Briez's human factory—his own body—is enormous when one considers that it takes only $7\frac{1}{2}$ quarts of blood to fill the blood vessels of an adult man. During 1935, Briez manufactured enough blood to supply himself and to give ninety-eight transfusions. Each transfusion averaged ten ounces.

The champion blood donor of Paris started his manufacturing business in a small way. In 1924 he gave blood for four transfusions. The next year his orders jumped to thirty-eight. In 1927 the number of transfusions supplied by him attained the astonishing figure of ninety-four and from that time until 1935 he averaged from fifty to sixty a year.

No ill effects have been noted, and Briez is always ready for another call, according to the Paris correspondent of the *AMA Journal*.

LYMPHOGRANULOMA VENEREUM

Report of a Case

BORRIS A. KORNBLITH, A B, M D, *New York City*

Among a series of 105 patients with lymphogranuloma venereum observed at the Mt Sinai Hospital, the following case is one of the most interesting. It was possible to trace the disease from its inception, to locate the partner, and to trace the course from the initial lesion through all its consequent complications.

Case Report

L. G., a forty year old, single, white, Italian porter was admitted to the medical service of Dr. B. S. Oppenheimer, October 1935. He complained of a painful swelling in his left groin of two weeks' duration, continued fever, anorexia, progressive weakness, and a loss of twelve pounds since the onset. He admitted sexual exposure to a negress six weeks before admission. After this exposure, he remembered vaguely a burning sensation upon urination, moderate frequency, and nocturia. These symptoms occurred about five days after coitus and disappeared without treatment in a period of three days. There was no history of any penile lesion.

The patient was well-developed, well-nourished, and acutely ill. He had a temperature of 102° F, pulse ninety. His general examination was essentially negative, except for the local findings. In the left groin there was a diffusely tender mass which measured six x two x two cms. The overlying skin appeared edematous and purplish in color. This mass was apparently an agglomeration of lymph nodes. An indefinable tender, smooth, diffuse tumefaction was likewise felt in the left lower quadrant. This mass was interpreted as an enlargement of the pelvic lymph nodes. On rectal examination this finding was confirmed. A diffuse swelling could be felt digitally on the left side. It extended along the rectal wall as high up as the finger could palpate. Proctoscopy at this time showed no abnormal lesions in the mucous membrane. Smaller lymph nodes were found in the right inguinal region. These were single and well-defined. In addition, there was a moderate enlargement of the posterior cervical, axillary, and left epitrochlear lymph nodes. These were likewise tender. The neurological status showed no

abnormalities. While under observation in the hospital, the left femoral nodes became enlarged. The liver and spleen were not palpable. The spermatic cord was not tender along its course in the scrotum. However, both the cord and its surrounding structures were markedly tender as they entered the external inguinal ring. The patient's temperature ranged between 99 and 102° F.

Laboratory findings. The urine examination was negative. A urethral smear showed no gonococci. The blood urea was fifteen mg per 100 c.c. The blood sugar was 100 mg per 100 c.c. Blood Wassermann and Kahn tests were negative, Frei test was positive (Fig. 1). The hemoglobin was ninety per cent, w.b.c. 8,500, polymorphonuclear leukocytes segmented forms thirty-seven per cent, unsegmented forms per cent, lymphocytes thirty-eight per cent, monocytes two per cent, eosinophiles three per cent.

The patient remained in the hospital for six days and was discharged to the Out Patient Department for further observation. For a period of twenty-one days after his discharge from the hospital, he felt relatively well except for a persistent low grade fever and general malaise. His inguinal glands began to subside, while his axillary and cervical glands had completely resolved. However, he began to complain of a purulent bloody discharge from his rectum. A proctoscopy at this time showed marked edema of the lower eight cm of the rectum. The mucosa was broken by many superficial ulcerations especially in the lower three cm. These ulcerations were covered by a necrotic "diphtheritic mucous membrane." The lumen contained a good deal of purulent material. Another blood count taken at this time showed hgb eighty-eight per cent, r.b.c. 4,200,000, w.b.c. 10,000, polymorphonuclear leukocytes segmented fifty per cent, unsegmented eight per cent, eosinophiles four per cent, lymphocytes twenty-eight per cent, monocytes ten per cent.

Course

The patient was under observation for nine months. During this time the superficial inguinal glands subsided completely, but the pelvic glands were still palpable. He ran a persistent low grade fever. His



Fig 1 Positive Frei test and repeated positive reactions to subsequent injections for treatment

rectal symptoms did not abate, on the contrary they became progressively worse. He passed purulent bloody secretion practically all the time. A progressively enlarging condyloma developed around his anal margin, reaching the size of a lemon (Fig 2). It was particularly painful and interfered a good deal with bowel movement. A digital examination revealed a progressive narrowing which was tubular in character for a distance of about six cm along the rectum. The mucosa in this region at proctoscopy appeared very granular, necrotic, and bleeding profusely throughout. The lesion stopped abruptly at a distance of about six cm. The mucosa in the sigmoid showed no abnormalities. The patient received a total of forty injections of intradermal Frei material without any beneficial effect.

It was possible to trace the partner in this case. She was a negress of forty-two who denied any previous venereal disease. A Wassermann reaction was negative. A Frei test was positive. Pelvic examination revealed a moderate discharge from the cervix uteri. This showed no gonococci. There was, however, a small superficial erosion on the posterior lip. Both patients disappeared from observation.

Discussion

This patient could not remember any local initial lesion, which is a common experience. Only a small group of the total number of cases seen presented themselves with an initial lesion. The lesion was evanescent in the nature of a papule, vesicle, or ulceration on the corona, more

often on the frenulum. The history of urethritis which was undoubtedly not gonorrhea is important. Intraurethral lesions have been described. The urethritis in this case likewise disappeared spontaneously without treatment after a few days duration. The history of contact with a negress was the usual in the series of white men observed. This patient had no other sexual contacts after the exposure to his negro partner.

The incubation period was difficult to determine. A possible time interval of between two and five days may be considered as likely.

In most cases the glandular enlargement was unilateral. However, in all cases giving a history of urethritis as the initial symptom, the enlargement was bilateral. A generalized adenopathy is somewhat uncommon. Two other cases have been observed, one had an initial lesion on the middle finger while the other had a primary lesion on his genitals. Both had a generalized adenopathy which later subsided. The diagnosis in both of these cases was confirmed by a positive Frei test and biopsies, of an epitrochlear gland in the first case and inguinal gland in the other case.¹ Cases with hepatosplenomegaly in association with systemic symptoms have likewise been described.² Pelvic



Fig 2 Perianal condyloma associated with an acute proctitis six weeks after onset

glandular enlargement is undoubtedly present practically to a greater or lesser extent. This may be confirmed clinically, by palpation of the hypochondriac regions, rectal palpation, and palpation of the cord structures as they enter the inguinal canal at the external inguinal ring. When the pelvic glands are involved these structures are tender. The rationale of this sign can be found by considering the anatomical course of the lymphatics.³ There is a direct communication between the superficial inguinal lymph nodes and the pelvic lymph nodes which are retroperitoneal through the inguinal canal. At operation the anastomotic lymphatics, when diseased, stand out as thickened strands as they make their way toward the retroperitoneal space.

There was no breaking down of any lymph nodes in this case, which is not unusual. About forty per cent of the cases observed behaved similarly. There was no breaking down. Instead, a spontaneous regression took place.

The rectal lesions occurring in lymphogranuloma are secondary to the involvement of the pelvic lymph nodes, with a consequent interference with the lymphatic drainage of the rectum. The resulting lesions vary from fistula-in-ano to proctitis, periproctitis, rectovaginal fistula, condyloma, and finally the formation of a fibrous stricture. Rectal lesions are undoubtedly seen more often among female patients and in greater proportion of negroes and Puerto Rican women.⁴ However, many cases are reported among men. The rectal lesion is pathogenetically a secondary lesion. The causative factor is primarily the pelvic glandular involvement. An exception to this, is present among cases of pederasty where the lesion is primary in the rectal mucosa. An un-

usual primary rectal lesion was reported in a child of eight. This lesion was secondary to the use of an infected enema tip.⁵

An increased monocyte count and eosinophilia are not uncommon.

Treatment

In spite of the fact that this patient was given intradermal and intravenous Frei material for treatment, his lesion progressed without abatement. Local adjuvant treatment was likewise given without any beneficial effect. Encouraging results were obtained among cases where the inguinal glandular enlargement dominated the clinical picture, but, consistently unsatisfactory results were obtained in cases where there was any rectal involvement. Further study on treatment is now in progress.

Summary

1 A case of lymphogranuloma venereum with generalized adenopathy and complicating rectal lesions is presented.

2 In view of the number of cases presenting manifestations of a systemic nature a further search for general manifestations is suggested.

3 The use of Frei material, although discouraging in this particular case, offers encouraging results with judicious use in a selected group of cases.

2 E 86 St

References

- 1 Kornblith, B. A. *Surg, Gyn and Obst* 63 99, 1936
- 2 Idem. *Journal of the Mt Sinai Hosp* 3.24, 1936
- 3 Barthels, C. and Biberstein, H. (Breslau). *Brit Clin Chir*, 152 161, 325, 1931
- 4 Cole, H. N. *J.A.M.A.*, 101 1069, 1933
- 5 Elitzak, J. and Kornblith, B. A. *Amer Jour of Dis of Child*, 49 703, 1935

LONG ISLAND DOCTORS MEET

More than 200 Brooklyn, Queens and Long Island physicians and surgeons attended the annual dinner held by the Associated Physicians of Long Island at the Hotel Granada in Brooklyn on Jan 30. The dinner concluded a day of meetings, clinics and professional demonstrations at St. John's Hospital, Brooklyn.

Dr Charles Hamilton, chief of staff of St. John's Hospital, was the host at a

series of clinics during the day. Those who presided at the clinics were Dr John E. Jennings, Dr Augustus Harris, Dr Laurent Feiner, Dr Paul Parish and Dr Carl Green. Dr Leonard Atters, of the hospital staff, gave a pathology demonstration and lecture. Members of the association held their thirty-ninth annual meeting preceding the dinner. Dr John Travis, of Northport, head of the organization, presided.

MENINGOCOCCEMIA WITHOUT MENINGITIS

Report of Case

FRED W GOUNDRY, M D, *Binghamton* and THOMAS H PHALEN, M D, *Johnson City*

Whether meningococcemia without meningitis is a disease entity or an abortive type of meningococcic infection is still an open question. However, we feel that it does occur and possibly more commonly than the cases reported in the literature would lead us to assume. Cases of this disease are described as acute or chronic in type. They may recover after a few days or a few weeks or even after several months duration, either spontaneously or after specific therapy. Then again they may be complicated by meningitis.

It is our purpose in presenting this case to bring to mind some diagnostic features of this disease with a plea for early specific serum therapy, as well as to add another case of this kind to the literature.

Case Report

W K. was a white schoolboy, fourteen years of age. His family history was unimportant. For the past six or eight months, he had frequent spells of dizziness, headache, nausea, and vomiting. His tonsils were removed ten years ago and appendix two years ago. On December 18, 1935, he was admitted to the Charles S Wilson Memorial Hospital, complaining of fever, vomiting, and pain in the abdomen.

On the evening before entering the hospital, while on his way home from the movies, he felt chilly and, upon retiring, had a well-marked chill. Later during the night he had a second chill with a temperature of 104° F. This was relieved somewhat by an enema and hot drinks.

Before coming to the hospital, he was seen by one of us (G) and on examination, he was listless, sweating profusely, temperature of 101° F. He complained of some frontal headache and pain in the right knee. He had no rash, no stiffness of the neck. His nasopharynx was injected. His chest was clear and heart normal. There was moderate distention of

the abdomen with generalized tenderness, more in the upper half. No masses were found on palpation or percussion.

Two hours later, on admission to the hospital, he had a temperature of 100.4° F, pulse of eighty-eight, and respirations of twenty. His face was flushed, he was drowsy, and seemed acutely ill. The pupils were dilated but reacted normally, the sclera and conjunctiva were clear. Ears were normal. The nasopharynx was injected and the tongue coated. There was no stiffness of the neck. Lungs and heart were normal. The abdomen was slightly tender throughout. The liver was not enlarged and the edge of the spleen was barely palpable. On the skin over his chest, abdomen, and upper extremities there were numerous rose-colored macular spots which were discrete and seemed to fade under pressure, suggesting typhoid or paratyphoid.

Next day the patient felt better but still had some abdominal pain, his spleen was palpable and soft, and he had a temperature of 99°. His stool was negative for members of the typhoid-dysentery group of organisms and no bacteria were recovered from the urine. He had a white cell count of 13,000 with eighty-one per cent polymorphonuclears. A brain-heart infusion culture showed meningococci in twenty-four hours, the patient's serum revealed meningococcic agglutinins. He was moderately sensitive to horse serum. He was desensitized and next day was given twenty c.c. of antimeningococcic serum intramuscularly.

Meanwhile his rash after spreading down over the lower extremities began to fade. He continued to improve, took fluids well, and showed no reaction to the serum given. On Dec 22, four days after admission, he was given a second injection of twenty c.c. of the serum. Two days later he developed a generalized urticaria which lasted for four days. By the time the urticaria had cleared his meningococcic rash had disappeared. His spleen was not palpable. His blood culture was negative and the patient felt well. No further serum was given. Two subsequent blood cultures were negative. He

glandular enlargement is undoubtedly present practically to a greater or lesser extent. This may be confirmed clinically, by palpation of the hypochondriac regions, rectal palpation, and palpation of the cord structures as they enter the inguinal canal at the external inguinal ring. When the pelvic glands are involved these structures are tender. The rationale of this sign can be found by considering the anatomical course of the lymphatics.¹ There is a direct communication between the superficial inguinal lymph nodes and the pelvic lymph nodes which are retroperitoneal through the inguinal canal. At operation the anastomotic lymphatics, when diseased, stand out as thickened strands as they make their way toward the retroperitoneal space.

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References

- 1 Kornblith, B. A. *Surg, Gyn and Obst*, 63 99 1936
- 2 Idem *Journal of the Mt Sinai Hosp*, 3 24, 1936
- 3 Barthels, C and Biberstein, H (Breslau) *Beit Clin Chir*, 152 161, 325, 1931
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series of clinics during the day. Those who presided at the clinics were Dr John E. Jennings, Dr Augustus Harris, Dr Laurent Feiner, Dr Paul Parish and Dr Carl Green. Dr Leonard Atters, of the hospital staff, gave a pathology demonstration and lecture. Members of the association held their thirty-ninth annual meeting preceding the dinner. Dr John Travis, of Northport, head of the organization, presided.

soon acted in the same wrong way with her girl. She was sure to have seen her move after bedtime in a certain manner indicating masturbation. She resented to have her daughter study for her examination in another girl's company away from home, and asked me to subject the accused to a detective-like investigation. "What may they do together?" I finally cured her curiosity by—an exaggerated—threat with a possibility of her being the cause of insanity in her children and by explaining to her that her interest did not point to the children's welfare, but to her own need for sexual gratification, which she was gaining at their expense.

To return to our case at hand, this boy of sixteen had discontinued playing, was always unhappy, avoided other boys—and, of course, girls—was endlessly thinking of women and, convinced that his sins could be recognized on his face (which is usually nonsense, but which now, in his vicious circle, was true, since his behavior was a self-betrayal), he was forever embarrassed. He blushed without being outwardly aroused and, when anyone remarked upon his redness in the face, he blushed more and was ready to jump at his "adversary's" throat. But he held blushing as "effeminate" and therefore he was convinced that he was sexually inverted. He had begun several trades and apprenticeships, the last one as a printer, but he gave them up and was roaming around and drifting aimlessly. He could not sleep well and he had lost his appetite and consequently his previous strength and health. And, a sort of unconscious irony directed against his mother, he masturbated now several times daily.

It was a French physician of the eighteenth century who first wrote about masturbation, and several generations of doctors believed, and made the public believe, that it

was the cause of insanity and of many other evils. And later, when the profession found various other, real, causes of psychopathic conditions and acquitted masturbation, the public, always a generation or two behind, continued in this superstition which was difficult to eradicate, especially since there was also a vague idea of sinfulness from the religious viewpoint. As far as I am concerned, I would not absolve this habit entirely. While in itself it is not the cause of mental disturbances, while the fear of its results and the feeling of culpability are more guilty than the auto-erotic act itself, there is no doubt that a great *excess* of it, like all excesses, has its bad, usually temporary, effects.

In this case the mother, losing her head, made a further blunder. She sent the boy to prostitutes and had even a male friend of hers take him there. All that "for his salvation!" Fortunately, the lad was unable to approach the woman or to understand with exactness what it was all about and what was expected of him. He had better luck than the boy in the famous story by the great Russian writer Andreieff. But to what depths an ignorant mother may descend! Hardened as we may be through long experience, it is difficult to avoid a quiver at the filthy thought. But then, is not hell paved with best intentions?

In fine she took him to a medical man, a general practitioner, who acted splendidly. He shooed the mother away from the boy and made her adopt the "Hands off" slogan. He minimized the entire situation to the boy, taught him to fuss less about it, and so on, and really cured him within a short time. And when he sent the mother and her son, separately, to me, I had nothing to do but to praise the doctor and to confirm his work.

611 W 158 St

ARTIFICIAL INSEMINATION

There has been, from time to time, a good deal of unfortunate newspaper discussion on the subject of artificial insemination and "test-tube babies." Many women have gotten the impression that the method is of frequent value in the treatment of sterility. This is not the case. In normal intercourse the sperm is deposited in the immediate vicinity of the mouth of the womb, and the spermatozoa quickly enter the uterus. At times, however, the secretions or discharges of the canal may make this difficult, so that it is conceivable that in the rare case the

injection of the sperm into the uterine cavity with a syringe would give a better chance of pregnancy. In cases of male sterility—and these furnish the chief excuse for artificial insemination—there is no doubt that the method is of at least some value, for without it the chances of the woman are nil unless she sacrifices her marriage vows. If a woman thinks, however, that a single test-tube insemination is sure to result in conception, she will practically always be sadly fooled.—*Novak, Emil. The Woman Asks the Doctor, Williams and Wilkins Company*

was discharged from the hospital on January 2, 1936, sixteen days after the onset of the disease.

Four months after recovery from this attack, he was in good health, attending school, and carrying on normal activities.

Comment

We have here a case of meningococcemia unaccompanied by meningitis. It began with chills and fever, was accompanied by headache, joint pain, and mental apathy. This was followed by profuse sweating and a generalized rash resembling typhoid roseola. The blood count showed a moderate leukocytosis with a preponderance of polymorphonuclears. Meningococci were found in the blood stream early in the attack. As the

patient improved, the blood cultures became negative. There appeared to be no indication for cultures from the petechia and spinal fluid.

This condition is probably more common than we realize because facilities for blood cultures are not always at hand, and enriched culture media must be used for the isolation of the meningococcus. The physician is often unmindful of this disease and may easily overlook it, especially in the milder cases. The triad of chills, arthralgia, and skin eruption should prompt us to secure an early blood culture. From the therapeutic viewpoint, specific serum therapy seems the treatment of choice.

305 CLINTON ST

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., D.R.P.H., *New York City*

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Saved in Time

It is inevitable that masturbation—falsely called onanism—should figure among the causes leading to mental conflicts which determine the health or ill-health of the mind. But most examples that may be offered are complicated with some other difficulties. The following is a simple, clear, typical, and therefore very instructive case.

It is that of a boy of sixteen who is physically without blemish and mentally above the average as far as intelligence is concerned.

There would have been no conflict whatever if his mother had not tried to interfere. As a child he was growing and developing without trouble until she began to "educate" him sexually.

Sexual upbringing is a necessity, but it should be done in the proper way, as a response to the child's needs, as an answer to his inquiries and not in a provocative way. And it is possible only if the parent has gained the full confidence of his or her offspring.

When the boy was about ten years old, this mother who, as I discovered in my conversation with her, was herself sex-hungry, asked him once unexpectedly whether he masturbated. She had to explain to him what it meant. He blushed, did not answer

and ran off to his playmates. But she insisted and the next day and the day after she clung to him, telling him repeatedly how "harmful" this practice was. That is how his attention was attracted to it and how he began to satisfy himself. As time passed he did it more and more. Not that it is certain that without his mother's initial spark the fire would not have been lit spontaneously and that he would not have fallen into the habit. But there might have been little or no conflict in his mind—and that is the main thing.

I have known many mothers who made the same mistake and I often have had to work hard to undo the great harm that followed. One widow watched her two children as a cat would a mouse and sprang gleefully upon their little "sins," always aggrandizing them and enjoying them infinitely. She brought her young son to my office because she thought to have noticed some suspicious spots on his bedsheet. And she had lectured him until he was all but confusion and fright. Just to scold her violently and to tell her that intelligent or make-believe neglect would be the proper attitude, that a child has a right to his own secrets and that she would be wiser to close her eyes upon them, had no effect, as she

advertising by the specialist at the expense of his fellow practitioners, and his failure to use common sense? First, the physicians who had referred the cases to the specialist soon discovered that the specialist had maligned them. That was the last case that specialist would ever get from any one of those men. These men told their friends in the profession the story. The other men, realizing that they too might become subject to an action for malpractice, concluded that discretion, if nothing else, required that they should send their cases to some other specialist. The fellow specialists of the offending specialist were outraged because this loose, idle talk was a reflection upon them. The result was that the offending specialist lost caste with his fellow specialists. It became necessary for the members of the committee to warn the offending specialist of the damage his idle talk had caused, so that his self-respect and vanity were wounded. Incidentally, when the doctor discovered how much damage he had done, he went to the rescue of the general practitioners in the malpractice cases. That meant that he had to repudiate what he had told his patients, and the result was that the patients felt, and rightly so, that his word was of no value, and they became irate at the doctor. Briefly summarized, everybody was mad. No medical man with any pride wants himself placed in this position.

I may also point out that only recently a country newspaper in this state was subject to a suit for libel because it had the following to say about a young doctor who had just moved into the community to start out in the world. The newspaper said that he came to the—mentioning the village—"apparently to complete a medical and surgical apprenticeship." The only difference between libel and slander is that one is written and the other is spoken. Most of us have heard, at some time or another, some reflection coming from the lips of a medical man against his fellow practitioner, in which language far more vigorous than that used by the newspaper to which I have just referred, was used.

It is not for a young lawyer to preach to you upon this subject. What I have said was said, not with the thought of attempting to preach to you, but simply in the hope that the mentioning of to actual cases might emphasize the perils that follow the breach of this salutary

rule, and the comfort a physician may take in the thought that he has followed it.

2 Be careful about what you write to your patient

If I may be facetious for a moment, I will recall to your minds the story of the millionaire Broadway playboy, who always addressed his communications to his chorus-girl friends as follows "My dear Susie and Gentlemen of the Jury." When I was a student in law school, I had impressed upon me in the most unmistakable fashion the following rule: *Never write a letter that you would not want read to a jury.*

The rule which I have just given you applies with particular emphasis to the members of the medical profession. From time to time patients move, perhaps in the midst of treatment. They may be attached to the attending physician and attempt to have him follow the case by correspondence. Surgeons frequently operate upon patients from outlying sections who return to their homes before a complete recovery has occurred, and find it necessary to correspond with the surgeon. Vacations, either by the doctor or a patient, sometimes give rise to the same situation.

An actual case will illustrate the point. A surgeon of considerable ability amputated a patient's breast. Following her hospitalization, but before she had entirely recovered from the effects of the operation, the patient proceeded to her home in the country some distance from the point where the surgeon lived. She began to experience some discomfort at the site of the operation and wrote the surgeon to that effect. The surgeon replied assuring her that her fears were groundless, but the patient persisted by mail and the surgeon insisted by mail. Finally the surgeon decided to end the correspondence by writing a firm missive in which the patient was taken to task somewhat for her unnecessary fears and for needlessly troubling the surgeon with unnecessary correspondence. When the patient read the surgeon's letter she consulted another surgeon who, upon investigation, discovered a large surgical pack in the incision. The new surgeon removed the pack, the patient made a speedy recovery and promptly filed a claim for malpractice against the attending surgeon.

Since the celebrated case of *Blackburn v*

MEDICOLEGAL COUNSEL

ROBERT DINEEN, *Attorney, Syracuse*

In this paper I have laid down certain general rules or principles for the guidance of medical men engaged in the active practice of their profession. I make no claim that these rules or precepts are original with me. They have been culled from books on the subject, such as Mr. Lloyd Paul Stryker's work "Courts and Doctors," from decisions of the Courts, from the experiences of lawyers in their various contacts with the members of the medical profession, and from the experiences of my own firm in handling physicians' malpractice cases, dentists' malpractice cases, contested workmen's compensation proceedings involving medical questions, and actions on life insurance policies, and the defense of personal injury cases. Like all general rules, they have their exceptions. They are not laid down here with the thought that they are inflexible, or that they should be followed religiously in every case. They are offered, however, for your general guidance. They are based, either in whole or in part, upon the premises that a doctor's encounters with the law or lawyers should not be unpleasant or distressing, if he will keep three things in mind:

1. He is a member of a dignified and honorable profession.
2. Common honesty always pays dividends.
3. Common sense is a virtue.

Mindful, therefore, of these three truisms, I shall enumerate these rules or precepts, not so much upon the theory that they will help you solve problems, but what is more important, will help you avoid creating them. But, before enumerating these precepts, may I say one thing? In stating these precepts, I have illustrated each one with an actual case, in which of course no names, places or dates are mentioned. If these so-called "horrible examples" should aggregate a sizeable total, you must re-

member that they reflect the exception, not the rule. Each one was caused or precipitated by a departure from, or at least a failure to adhere to one or all of the three general principles which I have just enumerated. They are offered with no thought or purpose of casting any reflection upon the integrity of the medical profession as a whole, or even upon a substantial part of its membership. The precepts follow:

1. Don't run down your brother physician.

In this world it is rare to find two men of equal ability in medicine, as in other fields, background, training, experience, initiative, courage, resourcefulness, ingenuity—all play a part in making one medical man the superior of his brother practitioner, or the inferior, as the case may be. While you may recognize the shortcomings of a fellow practitioner, the public may not. Every time you belittle your brother physician, or disparage his ability, you break two of the fundamental principles that I ask you to bear in mind throughout this paper. You impugn the dignity and the honor of your profession, and you violate plain common sense. To illustrate:

Several years ago in a certain city three malpractice cases were brought within a very short period of time. In investigating these cases a significant fact was discovered, namely, that in each case the initial attending physician had referred the case to a specialist, and in each case it was the same specialist who saw the patient. Further investigation disclosed that in each instance the specialist, in an effort to impress upon the patient his superior skill and learning, had pointed out to the patient how inept the previous treatment had been, or how far superior the treatment of the specialist was to that of the original attending physician who had referred the case to the specialist.

What was the result of this undignified

Read at the Annual Meeting of the Fifth District Branch of the Medical Society of the State of New York, Rome, October 1, 1936

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Since the celebrated case of *Blackburn v*

Baker was decided, the chances of successfully defending a surgeon who has inadvertently left a pack in a surgical incision have been greatly improved, but not when the surgeon has built an open and shut case against himself by the writing of inept letters. In this respect there has been a fairly recent development in the law, namely, the liability which attaches for information negligently given. Although I have found no case in which this rule has been applied to a physician, I think the day may come when the Courts will hold that where a person acts upon information given to him by a physician in a written communication to his damage, and the information is incorrect, an action may lie against the attending physician for the information negligently given. Discourtesy in correspondence many times leads to costly results, and the same result may be obtained by unnecessarily taking or maintaining a position in correspondence with reference to treatment of a case.

Be careful about placing the collection overdue accounts in the hands of a collection agency

In asking you to observe this rule, I make no effort to further the cause of the legal profession by suggesting, even indirectly, that your accounts should be turned over to a lawyer for collection rather than to a collection agency. My warning is motivated by a different reason.

The average collection agency is run by individuals who hope to collect as many accounts as possible without the necessity of engaging a lawyer to assist the collector in his efforts. You can readily see that even a collection agency that finds it necessary to employ counsel, must pay the counsel, which produces a corresponding reduction in the profit of the agency. The more accounts the collection agency can collect without engaging counsel, the more profitable the agency is. The result is that the collection agency leaves no stone unturned to collect the account itself. Pressure of the most extraordinary kind is exerted. *First*, a series of letters, each more threatening in its tone. *Second*, a series of personal calls by a professional collector, each apt to be more acrimonious than the preceding one. *Third*, the use of suedolegal documents to frighten the

debtor. Now we apply these tactics to the collection of bills for medical services rendered.

Let us assume that a doctor sends fifty overdue accounts to a collection agency. Let us assume that in twenty of the cases he obtained an excellent result. Let us assume that in twenty of the cases he obtained a fair result. Let us assume that in ten of the cases he obtained poor result. Twenty of the cases, therefore, will probably, assuming that they are financially able to, meet the demands of the collection agency. Perhaps a certain percentage of the cases in which the results were only fair or poor will also accede to the demands of the agency, but in that group you are bound to find, on the law of averages, some people who will resent the action of the collection agency and will employ counsel to resist.

In defending such cases, counsel always looks for some affirmative defense. The patient, besides being disgruntled at the collection agency, is disgruntled with the doctor, and the result is that an action for malpractice is either started by the debtor, or else, in the event that suit is brought to collect the account, a counterclaim for malpractice is interposed. One of the most fertile causes of malpractice cases is the injudicious attempt to collect accounts which might better have been forgotten, or else the intemperate efforts of collection agencies to force collection in cases where, even though there was no malpractice, the results were far from satisfactory.

Do not misunderstand me. I am not advising any one here to forego collecting any account, nor am I suggesting that merely because an unfortunate result has occurred, the doctor should work for nothing. What I am saying is that if there is any doubt in your mind about the propriety of your treatment in any given case, if you must send your bills to a collection agency for collection, leave the bill out in that particular case. Out of any number of cases, I mention a typical and actual case involving this very situation.

A dentist who had a very bad result in a case let the bill drift for about one year and eleven months before making any effort to collect. You must remember that the statute of limitations on a malpractice case is two years. The dentist knew that the patient was disgruntled with his treat-

ment. All the dentist had to do was to wait a little over a month if he still thought he ought to be paid, and the statute of limitations would have barred the patient from pleading malpractice as a defense to the dentist's action to collect for his services. Instead of using common sense and letting the statute of limitations expire, the doctor made a vigorous eleventh hour attempt to collect his fee—with what result? Two days before the expiration of the statute of limitations, the patient sued the dentist for malpractice.

The dentist may be able to successfully defend this case, but the fact remains that by his failure to use common sense, he has precipitated a malpractice case which otherwise never would have been brought. On the other hand, I do not want you to feel that I am telling you in every doubtful case you should wait until the expiration of two years before you attempt to collect your bill. Sometimes in the defense of malpractice cases the fact that the doctor has failed to send a bill has been developed in evidence, indicating that even the doctor himself had doubts about the propriety of his treatment, or he would have attempted to collect the bill. No two cases are alike. What might be the right thing to do in one case would be the wrong thing to do in another, or vice versa. The point I make is that if there is any doubt in your mind about it, take counsel, and, to return to the heading of this point, take the counsel before you send bills out in doubtful cases to collection agencies.

4 Use care in keeping your office records. Insist that the hospital in which your patients are confined uses care in maintaining the records.

It is surprising how important the admonition contained in this rule is, and how careless many doctors are about it. If I succeed in nothing else today but impressing upon your minds the importance of this rule, I will feel that the day has been well spent. The reasons why this rule should be most carefully followed are many and varied.

To begin with, this is an era of litigation. People are becoming what is known as "claim wise." Actions are started on cases nowadays that would never have been dreamed of years ago. A doctor never knows when his knowledge of the case may

furnish the turning point in litigation involving, perhaps the rights of the patient, and sometimes the very professional life of the doctor himself. Let us consider the former.

A patient is injured in an automobile accident. He comes to his attending physician, the attending physician examines him. If his records are complete, he will mark down the history of the accident, the complaints of the patient, his findings, his treatment, and as the case progresses, a report on the progress of the case, and I hope, an itemized statement of the calls made and the value thereof, so that the doctor may ultimately be reimbursed for his efforts. What happens when the doctor fails to do this and litigation arises? Perhaps the litigation may turn upon the history of the case. The history of the case given by the patient to the doctor and set down on the doctor's office records, may often corroborate the patient's claim as to how the accident happened, thereby enabling the patient to recover a verdict which he might otherwise lose. In such a case the patient is grateful to the doctor because the accurate records of the doctor have enabled the patient to be compensated for his damages.

On the other hand, the patient may be seeking to collect damages on some description of an accident entirely different from that which he gave the doctor in the first instance, before there was any thought of litigation. In such a case, if the doctor is called to court and is compelled to produce his original history, the doctor is in the position where, while the stating of the history may result disadvantageously to a claim asserted by his patient, at least the doctor will have the satisfaction of knowing that due to the accuracy of his records, no injustice has been done to the opposing party in the lawsuit.

The same is true of the doctor's findings and of his reports on the progress of the case. Failure to keep these records may subject you to some unpleasant moments on the witness stand, because in this day and age doctors are expected to keep good records, and when a doctor fails to do so, many jurymen feel that the doctor is behind the times or careless, or even sometimes dishonest, feeling that the doctor has intentionally omitted the history, lest it have an adverse effect upon his patient.

All these considerations reflect upon the

integrity of the profession, and certainly may affect the doctor's following, because even jurymen from time to time have occasion to consult physicians, and they certainly are not going to employ the services of some doctor who made an unfavorable impression upon them because of his slipshod and careless method of doing business.

If it is important to maintain up-to-date and complete records for the benefit of your patients, it follows necessarily that it is doubly important to maintain such records for the benefit of the doctor himself. The most disconcerting thing which a lawyer engaged to defend a doctor in a malpractice case can find is incomplete or carelessly kept office records or hospital charts. The importance of a properly kept office record can not be overemphasized in the defense of such cases. It is frequently the hub of the lawsuit. If the record is complete, modern and up to date, the jury is apt to conclude that the doctor's treatment was in the same category, and may decide the case in the doctor's favor. On the other hand, if the doctor is charged with carelessness or neglect, and his office record looks the same way, the jury is apt to infer, not rightly perhaps, that the doctor treated his patient as carelessly as he took care of his records.

A word of warning! If you have been careless in keeping your office records and you are suddenly confronted with a malpractice case, do not attempt to supplement the deficiencies in your office record after the trouble has begun in order to fortify your position. In giving this word of advice, I am proceeding upon the premise, that the doctor, in revising his record, has not set forth any items therein which could not properly have been there in the first instance. An actual case will illustrate the perils of this procedure.

Several years ago a doctor was sued for malpractice. His office record was most incomplete. Before the attorney furnished by his malpractice insurance carrier arrived on the scene, the doctor proceeded to supplement the deficiencies in his records. The case was several years old, and in so doing the doctor lost sight of the fact that the ink which he used was not the same color as the original ink on the record. Further, it was apparent from even the most casual inspection of the record that recent additions had been made to it, although the doctor had not treated the patient in months. Then too, the doctor,

in writing in the notations, from force of habit, put down the same year in which he made the notes, although the treatment was rendered the year before. The attorney for the plaintiff subpoenaed the doctor's record, and the result was that when the jury inspected this record in their jury room, they discovered the situation and promptly concluded that the doctor was attempting to cover up, and returned a verdict against him.

Besides that, such activities destroy the confidence of the attorney in the case. He feels that the doctor has been underhanded, or at least injudicious, and he has no way of knowing what other changes, either in the record or in the case itself, the doctor has made. A lawyer, in order to successfully defend any case, must know the truth by all means, and if he can not believe what his own client tells him, his task is rendered much more difficult.

What I have said about office records applies with equal force to hospital records. In the average malpractice case, as soon as the case is sued, the defense attorneys usually have a complete copy of the hospital chart made. An actual case will illustrate the perils of tampering with a hospital chart.

In one case a nurse, anxious to protect a doctor who was charged with neglecting his patient, added several calls by the doctor to the hospital chart. Prior to the time she made these changes, the attorneys for the doctor had made copies of the hospital chart, and when the two were compared the additions were discovered. To make matters worse, the additions gave every indication of being of recent origin. Fortunately for the doctor, upon the trial his adversary did not examine the record closely enough to discover this change in the record. The doctor was not responsible for it, in any event. Fortunately the result in that particular case turned out to be satisfactory. However, it might well have been disastrous. In the large hospitals in the cities, it probably would have been difficult, if not impossible, for the nurse to have obtained this record for the purpose of making changes, but in the smaller hospitals where less rigid care is kept of these charts, such a situation is possible, and as I have just pointed out, actually does occur.

It is a great comfort when you are confronted with a malpractice case and charged

with failing to do some particular act, or improperly doing some act, to be able to pick up a hospital chart and establish by written evidence made at the time, that the charge against you is groundless. On the other hand, it is a source of considerable distress to turn to the hospital chart in an effort to find evidence which will fortify you in the defense of one of these cases, and find such evidence missing. The failure to insist upon up-to-date hospital records is particularly inexcusable when you consider that most of the entries therein need not be made by the attending physician, but by the employees of the hospital, nurses, etc

5 Keep up-to-date

All of us like peace of mind. There can be no peace of mind, however, in the belated discovery that after a patient has suffered intense pain, prolonged disability, or even death, the situation might have been obviated had the physician known of some modern treatment which was readily available in the literature of the day. However, I approach the problem, not from the standpoint of peace of mind so much as from the standpoint that failure to keep abreast of the times may expose you to liability for malpractice. The law in this state has long been established that such a failure to keep abreast of the times, if it results in damage to the patient, subjects the doctor to liability in an action brought by the patient.

It is always rather disquieting, when a lawyer is called upon to defend a doctor for failure to keep abreast of the times, to enter the doctor's office and, instead of finding an up-to-date library on the doctor's shelves, and up-to-date periodicals on his desk, to find instead a number of time-worn relics thickly covered with dust and giving indication of not having been opened for years. While you may not think some pa-

tients notice these things, in a small community where doctors are well-known, failure to keep abreast of the times is frequently common knowledge, and may be known even to members of the jury who are called upon to decide his fate. I mention two illustrations upon this point.

In one case a doctor was baffled in attempting to arrive at a diagnosis. It so happened that he was a keen student of the medical journals. In reading these journals he came across several case histories in other parts of the country involving the identical symptoms, which were finally traced to a depilatory cream. This discovery finally furnished the basis for a lawsuit in favor of the patient against the manufacturer and retailer of this cream. Had the doctor failed to keep abreast of the times, he might never have been able to diagnose the plaintiff's condition, nor would he have been able to furnish the patient information which enabled the patient to bring action to collect for her damages.

A second example illustrates another point. In one malpractice case the attending physician's treatment was anything but modern. There was a celebrated textbook on the subject, numerous editions of which had been published since the doctor had bought his original copy. A number of changes had been made in the treatment. Had the doctor known of these changes, his treatment might have been much more effective. His patient died, and after the patient died the doctor purchased the latest edition of the book. When he was called upon to defend himself in a malpractice case, he knew the subject then, but it was too late. At the time he should have known it, in other words, at the time when he could have saved the patient's life, the latest copy of the work was resting, not upon his desk, but upon the shelves of the bookseller.

WHAT DID HE DO IN HIS SPARE TIME?

An interesting example of contract practice recently came to our attention from a fair sized city in Illinois. One physician received the contract for supplying necessary medical care to the indigent for the sum of \$1,400.00 per year. He furnished all drugs and supplies, his annual report shows that during the past year he pulled 542 teeth, performed five hysterectomies, seventy-two other abdominal operations, at-

tended fifty-five obstetrical cases nearly all of them in the homes. During the year he recorded 5,703 office visits, 3,223 residence calls, sixty-six visits to the county home, fifty-seven police calls, fifteen to the county jail, and 177 calls to the rural districts, the distance varying from eight to twenty-three miles each. It is quite obvious that this contract physician actually earned the money which was paid for his services.

NEW YORK STATE JOURNAL OF MEDICINE

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EDITORIALS

A Federal Department of Health

We have advocated a federal department of health in the ensuing and pending reorganization which is under consideration in Washington. We would deplore the establishment of a health bureau in a federal department of welfare. Not in any way abrogating the principle of local responsibility, and the necessity of local and state administration of health laws and preventive medicine to the utmost degree, and also comprehending the differing nature of communities which inevitably involves differing methods of providing health safeguards, we contend that such a health department is a necessity now and should concern itself with planning for medical care to the indigent, including pay for the physicians serving them, the care for the physically and mentally handicapped, the planning to deliver *high quality* of medical care and service to the lower income group, (not by the adoption of a foreign insurance scheme, but by developing an American plan in keeping with our traditions) by planning for the medical aspects of child welfare and maternal care, planning safeguards for the care of the industrial worker, including supervision, inspection, and control over the hazards of occupation, supervising hygiene and sanitation in school, factory, farm, mine, and

home. The integration of all public health functions under one coordinating head is needed. These and other functions stress the necessity of such a federal health department. The administrative head of such a department should be a doctor of medicine with experience and qualifications as an executive.

Having some such idea in mind, the Executive Committee, at its last meeting, unanimously passed the following resolution:

Resolved "That the Medical Society of the State of New York urge that the reorganization of the Federal Government combine in one department all medical and health activities making this a separate and distinct department, and urge especially the nomination as chief executive officer of such a department of a qualified physician with a record of achievement in administration."

We ask our members to bring this resolution and what it implies to the attention of our legislators, so that the medical profession can better serve the public, enhance the extent of preventive medicine, and still further improve our morbidity and mortality statistics in the fine records of which we as physicians take so great a pride.

The Amended Constitution and By-Laws

The first draft of the amended constitution and by-laws which the committee charged with this revision presents to our membership is before you

In his address before the House of Delegates, Dr Charles Gordon Heyd, former president of the Society, commented on the outgrown machinery of government under whose framework we were functioning, and called attention to the need of changes in our fundamental law and to the By-Laws within the framework of which we were trying to meet the urgent needs of new and unthought of conditions—conditions which were never envisaged when our Constitution and By-Laws were adopted

Originally our society had little of actual business management on its hands. Professional colleagues came together and discussed scientific problems mostly, and concerned themselves with questions of establishing standards and arranging modes of medical practice. To be sure, dispensary abuse, ethics, and the ever-present fight to protect the public from quackery, cultisms—onslaughts against the medical practice law were ever pressing problems. No one visualized the complicated set-up necessary for the coordinated effort and medical integration necessary to properly deliver to the public concerned the benefits designed for it by the new Workmen's Compensation Law. The management of a medical journal changed from a medium for presenting scientific papers written by those experienced in the clinical and laboratory workshops of the profession, to an administrative effort to produce a journal of opinion, expressing the formulated policies of the legislative section of our society, its officers, and its committeemen. The study and scrutiny of proposed legislation in the State's legislative halls, became a very heavy duty because of the tendency of the times which impels our State officials to respond to both popular and pressure-group demands for specific

bills. We, as an organization, experts as it were in both preventive and curative medicine, need and do support the public health officials in their worthy endeavors to better the living environment of our people. Our embarkation upon an endeavor to enhance the continuing education of our profession, and bring outstanding teaching personalities to our rural and other centers remote from our great medical teaching centers, demands coordination and control. The radio, the press, the lecture platform, and the lay magazines each present a problem to us, needing study and continuous action. Then, about a decade ago, there developed groups of sociologists who, sensing a wrong in the handicaps under which the underprivileged lived and worked, hastily and without due consideration of the true factors at fault, proposed and pressed for legislative reforms which, had they been enacted into law, would not only have profoundly changed the whole medical scene, but conceivably have had a deleterious influence upon the very background of our parliamentary form of government. Hence it became necessary to form a group which furnished documented and authentic information to the law-makers, to the profession itself, and to the public, upon the instant issues before it. These are only a few items, hastily sketched to make the background of the picture which the 1936 House of Delegates faced.

The House of Delegates adopted in principle the idea that changes in our fundamental governing structure were necessary and should be carried out, to coordinate our efforts, increase efficiency, prevent overlapping and reduplication of efforts, and simplify control of our various endeavors. To this end, the House directed the immediate appointment of a Committee on Revision of the Constitution and By-Laws, and directed that it present the results of its work to the 1937 House of Delegates for its consideration and action. Our President, Dr Floyd Winslow, heartily undertook the mandate

and appointed the Committee whose work is before you, as printed in the JOURNAL [February 15, 1937, pp 418-430]

In the interim a mandate was given to this, your journal, to publicize the proposed amendments, and make editorial comment on them

While the work of the Committee on Revision is not yet in its final form, nor in the form in which it will be presented to the 1937 House, we gladly comply with the Committee's request to urge every member to study the proposed changes. The Committee would like to feel, as they come before your elected delegates in the next House, and ask adoption for their amendments, that the general membership is in accord with them. They are urgently inviting both criticism and suggestions, and promise that these will receive serious studious consideration and perhaps if found good and convincing, they will incorporate as much of these as they deem proper into the new instrument of government before it takes final form, and is presented for consideration and final action.

We cannot express any opinion upon the proposed changes, but we will from time to time, between now and the meeting of the next House, present explanatory editorials as either the Committee or the correspondence upon this topic shows it to be necessary.

Read, study, criticize, and communicate with Dr O W H Mitchell, Chairman of the Committee on Revision

The Fight Against Syphilis

Finally, after many years of tireless effort on the part of organized medicine and public health officials, the fight against syphilis has been brought into the open. The public is being informed of the ravages of this disease and the word "syphilis" has been permitted to replace the stupid phrase "social disease."

In the present stage of this campaign, "adequate treatment" is the adequate treatment

of infected individuals so as to render themselves and the community safe from the spread of syphilis. It is to be hoped that the press and the radio, which are now actively aiding the health authorities, will not lessen their valuable services as time goes on and the novelty of this drive wears off. We will need their support all the more when the preventive side of this subject is reached, for we will then have to cope with all varieties of so-called "defenders of public morals." These latter blind themselves to the inevitable and are like the farmer who said, "I'm open to conviction, but I'm damned if you can convince me." They play an important part in our body politic but their influence must not be permitted to defeat this war against syphilis.

Some More Figures

The vicious phases of health insurance seldom reach the public. Whereas the medical profession, vitally concerned as it is with both the quality and the cost of medical service, is constantly calling attention to the fallacious claims made for health insurance it seems that deaf ears are turned to its warnings by the professional "socializers." Organized medicine must therefore go directly before the people and through them to their official representatives. Since each individual physician must consider himself in duty bound to present the facts to his clientele, we call to their attention vital facts from time to time.

In Austria, wherein 2,000,000 persons, or thirty per cent of the population, are affected by the social insurance law, the Minister of Social Welfare reports that in 1935, twenty per cent of the money collected was spent for doctors' fees, 9.5 per cent for medicines and 14.5 per cent for administration! It is significant that this represents an improvement over the former year. Then, the cost of the medicines prescribed was deducted from the doctor's compensation. Now an agreement has been reached between the prac-

tioners and the *Krankenkassen* to the effect that a quarter of the total income is set aside to cover both medical fees and medicines. But "if a medical man is found to have been too extravagant in prescribing he will have to refund the excess so that 'he personally will suffer and not, as hitherto, the whole profession'"

In the long run, who suffers? Why, the people, of course. Not the doctor who certainly will not jeopardize his meager income by writing a prescription for a needed remedy when he knows he probably will have to pay for it. What is still sadder, however, is that 14½ cents out of every dollar the public is forced to contribute for its health goes to support a hungry bureaucracy. Do we want this sort of thing in our country? Ask your patients!

A Purely Medical Question

As brilliant an administrator as the late Commissioner Hermann Biggs repeatedly declared that a medical education is essential to determine community health needs and inaugurate suitable policies for their satisfaction. A public welfare program that fails to respect the technical requirements of public health work nullifies its own purpose.

For this reason the proposal to subordinate Federal health activities to the general aims of a lay welfare department has aroused a storm of disapproval in the profession. Thoughtful physicians have long urged the consolidation of all national health work in a single administrative unit, but this should be a medical department under the direction of medical men. The lay sociologist has neither the scientific training required to formulate public health policy nor the special experience necessary to administer it properly.

The growing importance assumed by public health problems warrants the establishment of a department devoted

exclusively to this work. Its technical nature demands that control over such a department be vested in qualified medical men. To make public health a minor bureau in a lay department, would seriously jeopardize further progress in this field.

Sensational events have diverted popular attention from the proposed Federal reorganization. Meantime lay groups seeking to obtain control over the public health let slip no opportunity to influence Congress. To counteract such propaganda, physicians should communicate immediately with their representatives in House and Senate to urge the creation of an independent, medically governed Department of Health.

The Annual Meeting

It is not too early to reserve the dates May 24 to 27, for your instruction and for your entertainment in Rochester this year, for the annual meeting of the Society promises a full and interesting program of events.

This year will mark an innovation in that the meeting will not be held in a hotel. The palatial building with their splendid room spaces of the Rochester Chamber of Commerce will be the scene of our activities. Dr. Leo F. Simpson, the Chairman of the Committee on Arrangements, has done a fine job. More of this hereafter. There will be a public meeting on the evening of Wednesday, May 26, in the fine Eastman Theatre which is part of the University of Rochester. The theme for this meeting will be "The Relation of Photography and Motion Pictures to the Science and Practice of Medicine." Dr. Benjamin J. Slater has this matter in hand and it promises to be something not usually found on programs of medical meetings.

Our Vice-Speaker, Dr. James M. Flynn, has charge of the Banquet arrangements. His genial personality and the array of distinguished guests will make this, too, interesting and note-

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of infected individuals so as to render themselves and the community safe from the spread of syphilis. It is to be hoped that the press and the radio, which are now actively aiding the health authorities, will not lessen their valuable services as time goes on and the novelty of this drive wears off. We will need their support all the more when the preventive side of this subject is reached, for we will then have to cope with all varieties of so-called "defenders of public morals." These latter blind themselves to the inevitable and are like the farmer who said, "I'm open to conviction, but I'm damned if you can convince me." They play an important part in our body politic but their influence must not be permitted to defeat this war against syphilis.

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Today the original excuse for licensing physiotherapy technicians no longer exists. Present registrants are protected by the licenses they already hold for as long as they observe the statutory limitations on their activity. There are no recognized training schools in the state to produce qualified new candidates for licensure.

The law as it stands is an invitation to chicanery. Even in the absence of accredited physiotherapy schools, applicants for license still crop up. In almost every case political influence is invoked to compensate for the candidate's inability to comply with the statutory requirements.

There would be no dearth of competent technicians if the Feld-Milmoe Act were passed. As it is, most specialists in physiotherapy, including hospital departments, train their own assistants according to their particular methods and needs. The registered technician is frequently more of a hindrance than a help because of his proclivity to assume responsibilities for which he is not qualified.

As long as the statutory provision stands, inadequately trained technicians will attempt to secure licenses through political pressure and successful candidates will use their licenses to hide unauthorized practices. Repeal of the licensing clause, as proposed in the Feld-Milmoe bill, would eliminate a situation that is as unnecessary as it is unwholesome.

CURRENT COMMENT

"PRIVATE FUNDS IN THE PUBLIC INTEREST" is discussed in an article in the February 15, 1937 issue of *Today* by Raymond Moley. "We now have foundations which concern themselves with the subjects of education, medicine and public health, social welfare, social sciences, physical and biological sciences, economics, international relations, government and public administration, esthetics, humanities, child welfare, agriculture and forestry, city and regional planning and housing, heroism, race relations, religion, engineering, public service,

labor, birth control, civil liberties, aviation, animals, cemetery maintenance and monuments and commemorative celebrations.

"This imposing list may give the casual reader the impression that the improvement of mankind is being pursued with breathtaking thoroughness on all possible fronts. *In reality neither thoroughness nor logic nor reason characterizes the distribution of funds as among these varied fields of human endeavor.* We need not quarrel with the facts that over \$10,000,000 was spent by foundations and trusts in the field of education in 1934 and a like amount in the field of medicine and public health. But it seems incongruous, at the very least, that only \$1,000,000 went to research in the field of economics that same year, only \$750,000 to the study of government and public administration, only \$730,000 to the humanities, less than \$25,000 to labor, less than \$1,500 to civil liberties and less than \$1,000 to aviation. A philanthropist might do worse (and generally does) than to establish a foundation to study the way in which foundations should be established, *for the complete array of funds and foundations in this country is, unfortunately, as much a monument to prejudices and whims of its donors as it is to their good intentions.* It is, besides, in far too many cases, a monument to vanity and shortsightedness."

Nevertheless "it is perfectly obvious that however capricious some of the donors of funds may have been, however unfruitful some of the endowments, private agencies are still better able to do many things than any government.

"Our recent experience with the hue and cry over 'boon dogging' shows how easy it is for demagogues to create prejudice against the expenditure of public money for purposes whose value is not immediately apparent to the average man.

"Purely experimental activities in the fields of education, science, sociology and the arts, activities which require many years for their accomplishment, small-scale unstandardized operations, research and teaching in the higher ranges of knowledge—these are properly subjects for private encouragement. A Pasteur who must make innumerable mistakes before he achieves great ends cannot depend upon the sympathetic understanding of a political administration. * * * An inquiring man by the name of Socrates bears witness to the public's impatience with those who dare to speculate on controversial questions.

"The public interest would be poorly served by the destruction of institutions devoted to research, education and charity, in which there is preserved a spirit of inde-

worthy Suffice to say that if you plan to go to Rochester, plan to stay throughout the sessions and take in the Banquet Finally—take your wife along, too, for the Ladies Auxiliary, under the chairmanship of Mrs J Craig Potter, is planning a program for them too They will be unusually well entertained

Notwithstanding all the emotions evoked by the legislative sessions of the House of Delegates, the Committee reports, the consideration of pressing medicosociologic problems, and the election of officials to carry on this necessary work, nothing to a doctor's mind transcends the opportunity to see and hear, and make personal contact with the leaders of scientific thought in medicine The dull, heavy daily grind, the obstacles to continued adherence to our ideals, and the daily awakening to the knowledge of how much more there is to know, brings us naturally to sit at the feet of the great teachers of medicine New York State, proud in the tradition of its many teaching institutions, is wont to boast among its other blessings, of the fine work of its native sons in scientific medical leadership Dr William A Groat, the chairman of the Committee on Scientific Sessions, has assembled a program which we can modestly term outstanding, and unusual There will be presented a symposium on the Relief of Intractable Pain, and another on Blood The symposium on blood will be led by Dr Geo H Wipple, (a Nobel prize winner) of the Rochester University, W B Castle of Harvard, and Sturgis of the University of Michigan The symposium on Pain will be presented by Drs Louis Cassamajor, Byron Stookey, and James C White of Harvard Medical School

In lighter vein, and as relaxation, there will be a great golf tournament held on Thursday, after the scientific sessions will have finished work The main feature will be a competition between members of various Academies of Medicine for the Lilly Cup Dr John R Williams has this matter in hand and those desiring to compete should address him in

Rochester This competition has been held for the past five years either in Western New York or in Canada This year it is expected that many physicians from Toronto, Hamilton, and St. Catherine will come to our scientific meetings, and stay for this international medical tournament which, while it stresses competition between ourselves and our Canadian neighbor, will none the less add another cementing link of friendship and cordiality between these two "good neighbors"

During the interval between meetings, our members have little contact, and often unfortunately less knowledge of how our democratic State Society actually functions Many are unaware of the time consuming work done gratuitously by many of their elected delegates The thoughtful, serious consideration of all aspects of many pressing problems is hardly appreciated by the membership at large Come and visit your House of Delegates while it is in session, and judge and evaluate how much you owe to these devoted fellow members for the work they do for you and for the public welfare

We doubt saying too much, or over stressing when we point out that *you really cannot afford to miss this meeting*

Revocation of Physiotherapy Licensure

Physicians, educators, and reputable physiotherapists are agreed that the Feld-Milmoe bill serves a good purpose in abolishing the licensure of physical therapy technicians When the licensing clause was enacted, the medical profession accepted it to prevent economic injury to a trained group whose livelihood was at stake Subsequently, however, this provision was abused by the creation of a far larger corps of licentiates than had been intended Once licensed, many technicians ignored the restrictions placed upon them by law and practiced independently of medical supervision

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Removal of Tonsils by Electric Coagulation

1749 Grand Concourse,
New York City

To the Editor

Permit me to congratulate Dr Joseph D Kelly on his timely article in the Feb 1 issue of the "Journal" entitled "Tonsillec-tomy vs Electric Coagulation—The Present Status" While the majority of reputable specialists have known for a long time the facts as stated by Dr Kelly, the profession in general may not be fully aware of the totally spurious claims made by those who practice electrocoagulation

Just three years ago Dr William J Yonker reported the experience of himself and his associates with this method before the Chicago Laryngological and Otological

Society, concluding with the statement, "Our results have been unsatisfactory, and we are still in doubt as to whether there are any indications for this method of removal of tonsils" This decidedly coincides with my own experience in operating on patients who previously had their tonsils "removed" by coagulation

In the light of accumulated experience it is safe to say that electric coagulation of tonsils is no operation at all and those knowingly practicing this method may justly be suspected of quackery and fraud.

Very truly yours,

JOS POPPER, M D

February 9, 1937

WISCONSIN DOCTORS WITH SHINY PANTS

The effort of state and local authorities to make the doctors provide medical service for absurdly low fees is rather getting on the nerves of the medical men all around the country In Wisconsin an extensive investigation was made to discover and list all children with physical defects, but not "one white dime" was provided to remedy them, and "what's more, no one is asking for such an appropriation," says a Wisconsin physician in a letter to his state medical journal He is Dr Pat Hansberry, of Hillsboro, and he wields a trenchant pen He goes on

I do not in any way censor them for not making this demand, because they have a bunch of glossy-seated, ravel-cuffed, worn collared, unshaved, long-haired M D's all over the State, all members of the STATE MEDICAL SOCIETY who are, and have been, dishing out this service without one dollar to show for their work and are subject to criticism and open for malpractice from this indigent class, for what? GLORY? Where in h--- is the glory?

Then he recalls another imposition that was put over on the doctors last fall, and suggests a program of action

If you shiny-pants friends will remember

there was a big drive last fall as the result of an appeal from the State Board of Health on vaccinations Oh Boy! T B test, smallpox, diphtheria, pin worms and what not, all at one setting The encouraging part of it was, it was to cost the patient 25c and the Darn Doctor got every cent of it. THE GRAFTER took the entire 25c and stuck it down in his shiny pants Such a steal—25c, just to give the banker's kid, the merchant's kid, the judge's kid, the lawyer's kid, the minister's kid,—three vaccinations at one time and then have the nerve to soak them twenty-five cents It is no wonder those Darn Doctors have money, of course, the State furnished the material, all except the skill and experience, that was acquired and didn't cost anything, so I guess it's all right.

I wonder what you think of this article? I don't care what you think,—you can't deny it Of course you stick out your chest and light a cigar that some W P A. worker gave you for a call, and pass as a bond broker, I will bet you a 25c vaccination, you haven't a month's rent ahead Now isn't that right?

Let's get organized to go down to Madison and get some real honest to god bills before this legislation and fight like hell to put it over How about blazing the trail for at least fair play? At least a square deal? At least a decent meal now and then? How about discarding the shiny pants?

pendence and a continuity of operation unaffected by passing political changes

"And yet the public looks with increasing impatience upon *wasteful, futile bequests and upon trustees and professional directors who are afraid or unwilling* to send the funds they control into new and more fruitful fields of enterprise

"The political direction of endowments and foundations can only be forestalled by the introduction of more of a sense of public responsibility into their management and direction

"They can survive and flourish only if they are flexible, susceptible of adaptation to the needs of the times, responsive to the fundamental movements of life and society" (Italics ours)

"It is surely very necessary for the social worker handling or even touching upon medical problems, to understand the basic ethical principles under which the medical profession is supposed to function, and under which it does function to a surprising extent * * * The social worker acts as an auxiliary agent to the physician in the care of the patient and must, with him, observe his ethical rules and must guard her activities so that the physician is not innocently involved by the social worker in an unethical act. The onus, stigma and penalty, if any, is the physician's to bear,

and the worker must guard him against this, as well as guard herself and her own profession against accusation of malfeasance * * *"—Good advice from Dr. C. W. Munger, President of the American Hospital Association

"MEDICINE MIGHT WELL BEGIN by blasting some of the nonsense out of the popular so-called 'mind,' restoring some understanding of, and humility toward the miracle of the human body, and then call attention to the effects of such national conditions as poor housing, overeating or undernourishment, and over indulgence in vicarious exercise, on the public health

"MEDICINE MIGHT WELL BEGIN by blasting bungling interventions of 'social engineers' than any other interest in the whole social complex. At the same time medicine exists in an atmosphere surcharged with more mistaken notions and opaque nonsense about its needs and methods than is the case with any other public service or profession. And, —let it not be forgotten—the public has a great and vital stake in the preservation of foundations of quality in medical care as to the nature of which the general public is almost completely unaware.

"*Carpe diem!*"—The editors of the *Westchester Medical Bulletin*, too, are calling our attention to "the handwriting on the wall"

BLOOD TESTS FOR ALCOHOL IN TRAFFIC ACCIDENTS

The German minister of the interior recently ordered blood tests for alcohol in connection with traffic accident cases. Such blood tests were first experimentally performed under the auspices of the Berlin police administration. On the basis of these experiments it is now stipulated that examination be made of all those persons involved in traffic accidents who are reasonably suspected of being under the influence of alcohol, says the Berlin correspondent of the *AMA Journal*.

For determination of alcohol in the blood the micromethod of Widmark is indicated as a well known and reliable procedure. As soon as possible following the accident the specimen is drawn from the ear lobe or finger tip and collected in specially prepared glass tubes. The Widmark method has received recognition in an amendment to the criminal procedure statute. In order to save expense the withdrawal of the blood specimen and the clinical examination are con-

sidered a part of the duties of the regular police physician. In order that the greatest possible exactitude and certainty may be obtained in the medical establishment of sobriety or inebriation, a medical examination must in each case be carried out and the observations properly recorded on questionnaire blanks. This procedure is particularly important if the alcoholic content of a suspected person's blood is not great enough to establish an alcoholic influence in the absence of other evidence. An especially valuable feature of the Widmark method is that by it not only the influence of alcohol but a state of sobriety may be determined, this may have a decisive bearing on the release from custody of a suspected person. Since the alcoholic content may be preserved for several weeks in the specially prepared glass tubes, the possibility of a later central examination in the main laboratory of the government hospital is guaranteed the police officials.

separate and distinct department, and urge especially the nomination as chief executive officer of such a department of a qualified physician with a record of achievement in administration.

On January 26, 1937, the President, Dr Winslow, was advised that a resolution requiring emergency action would properly come before the Executive Committee. Under the By-Laws, Chapter V, Section 3 Dr Winslow directed that two questions in this connection be submitted by wire to the members of the Council, as follows

1 To recommend to the Trustees an appropriation of \$2,500 to be sent to the State Medical Societies in the flood area for distribution to physicians in distress

2 To set up a subscription list through county societies for individual donations by members for the same purpose.

A very large majority of the members of the Council approved of such action

The appropriation of \$2,500 for this purpose was considered, as required by the By-laws, by the Board of Trustees in an emergency telephonic meeting. The Board decided that it would be better to withhold approval until information could be secured from the American Medical Association as to the actual existence of distress among the physicians in the flood area. This information was sought immediately and it developed that no actual distress was known—particularly in the two cities which had suffered most heavily. Therefore, it seemed best that no effort be made to open up subscription lists as had been approved in the Referendum Vote of the Council. On February 11, 1937, the Executive Committee decided that further action in the matter be postponed until evidence of need should appear to justify such contributions.

PETER IRVING, M D
Secretary

INSULIN TREATMENT FOR DEMENTIA PRAECOX

A new treatment for dementia praecox is said by eminent American psychiatrists to offer greater promise for the alleviation of the malady than any treatment available so far.

The new treatment, which had been applied during the last three and a half years in European institutions for the insane with results regarded as highly promising, was reported on Jan 12 at a combined meeting of the New York Neurological Society and the Section of Neurology and Psychiatry of the New York Academy of Medicine, held at the Academy Building.

The origin and nature of the treatment, which is based on producing a state of shock by the administration of insulin, was described by the man who first discovered it in 1928—Dr Manfred Sakel, Vienna psychiatrist, who has been invited to this country to instruct American psychiatrists in his method, which, should present promises be realized, will prove one of the great milestones in the treatment of mental ills.

In addition to Dr Sakel, those presenting papers and participating in the discussion included Dr Earl M Bowman, director of the psychiatric division of Bellevue Hospital and Dr Joseph Wortis of the psychiatry departments of Bellevue and New York University Medical College. Dr Bernard Glueck, medical director of Stony Lodge, Ossining, N Y, Professor Adolf Meyer, psychiatrist-in-chief, Johns Hopkins Hos-

pital, Baltimore, Dr John R Ross, superintendent of the Harlem Valley State Hospital, Wingdale, N Y, and Dr W B Cline Jr of the staff of the Wingdale institution, Dr Clarence O Cheney of the Psychiatric Institute, and Dr Smith Ely Jelliffe and Dr D Ewen Cameron.

As Dr Glueck expressed it "Time alone will tell how permanent the alleged cures are."

"My own experience," Dr Sakel said, "now includes over 300 cases, and there were as many more cases treated by others. But I am perfectly well aware of the difficulty there must be in reducing the material to statistics so that the value of this new treatment of schizophrenia (dementia praecox) can be estimated."

"The natural fluctuation which occurs in the course of the disease, the absence of the kind of definite symptoms that we have in physical diseases, and the impossibility of making a certain prognosis in any one case, all make it difficult to estimate results, especially when the case material is small."

"But when in so large a series of cases as I have treated up to now, and with the results confirmed by others, the net result is a percentage of remissions which is at least four times greater than the most optimistic figures for spontaneous remissions, then I think, no matter how cautious we may be, we are entitled to conclude that the treatment is effective."

EXECUTIVE COMMITTEE PROCEEDINGS

At its meetings on January 14 and February 11, 1937 the Executive Committee considered at length a number of subjects which are now before the standing committees. Many matters require still further study, but in some instances the Committee has arrived at final conclusions.

The following Advisory Committee to the Committee on Legislation was appointed

Harry Aranow	New York City
Blinn A. Buell	Binghamton
Henry C. Courten	Richmond Hill
George M. Fisher	Utica
William W. Hall	Watertown
Horace M. Hicks	Amsterdam
H. J. Knickerbocker	Geneva
Morton Ryder	Rye
G. Scott Towne	Saratoga Springs
Earle W. Voorhees	Poughkeepsie

On recommendation of the Committee on Economics, the following opinion was recorded

That it be the expressed opinion of the Medical Society of the State of New York that groups of physicians, practicing as such, should remain within the same framework of restrictions as to their conduct as though the activity were that of an individual physician. In other words, we feel that a group may not obtain publicity, by any means, in lay publications, that it should not solicit or advertise, that it should not claim superior quality or service and it should not practice competitive fees against the individual physicians of the community. If the group conforms to this and relies solely upon the recognition of its service by the people of the community as its sole means of acquisition of patronage it would seem to be a proper and fair activity. On the other hand, if the group by subterfuge courts the patronage of the community by enjoying any form of publicity, it would seem to us that each member physician should be considered personally guilty of misconduct.

Consideration of the matter of medical expense indemnity insurance in the State of New York, which had been the subject of long study by the Committee on Economics, led to the adoption of the following report of a special committee of the Executive Committee

1 We define medical expense indemnity insurance as a form of insurance whereby an individual, by making payments of stated premiums, purchases a definite sum of money in cash, which is thus made available to him for the payment of the individual's physician's charges for professional services. We recom-

mend endorsement of such a form of insurance.

2. We would add that in our opinion the physician's claims for his professional services should be a first lien on the cash indemnity.

3 That the medical expense indemnity insurance plan must be carried out on an actual basis.

4 That philanthropy has no place in an indemnity insurance scheme or plan, to deliver cash benefits to those who pay its premium requirements, so as to have funds to meet physicians' charges for services.

The Executive Committee received from three members the nomination to Honorary Membership in the Medical Society of the State of New York, as indicated in the following letter

December 22, 1936

Executive Committee,
Medical Society of the State of New York,
2 East 103rd Street,
New York, N. Y.

Gentlemen

The undersigned members desire to nominate for Honorary Membership in the Medical Society of the State of New York

Dr. José Arcé, Professor of Surgery, University of Buenos Aires, Buenos Aires, Argentina.

We beg that you present this at the meeting of the House of Delegates in May, 1937, as prescribed by the By-laws, Chapter I, Section 4.

Very truly yours,

FLOYD S. WINSLOW

JOSEPH J. ELLER

CHAS. GORDON HEYD

The nomination will be submitted to the House of Delegates at its next meeting.

At the suggestion of Dr. James Ewing of New York City, the Executive Committee discussed the merits of creation by the House of Delegates of a new Section or Session on Pathology. The Committee had the pleasure of receiving and listening to Dr. M. J. Fein, Secretary, and Drs. Nathan C. Foot and Ward J. MacNeal, members of the New York State Committee on Economics of Pathology. It was decided to recommend to the House of Delegates the establishment of either a Section or a Session on Pathology.

In connection with the possibility of the setting up under the Federal Government of a department devoted to medical and health activities, the Executive Committee adopted the following resolution

That the Medical Society of the State of New York urge that the reorganization of the federal government combine in one department all medical and health activities making this a

COMMITTEE ON SCIENTIFIC WORK

Announcement of Moving Picture Exhibit at the Rochester Meeting

The interest manifested in the continuous showing of medical motion pictures at the annual meeting in New York City last year, was so overwhelming, and the idea so generally copied by other medical meetings thereafter, that the Committee on Scientific Work will repeat this feature at the meeting in Rochester May 24, 25, and 26, on an even more extensive scale.

Films are requested, and may be offered for projection under the following rules and regulations

1 Owing to the large number of excellent films which have been made during the past year, and are now being submitted for exhibition, it may be impossible to give all this material a place on the program. The committee therefore reserves the right to select a program of films from the material submitted on the basis of general medical interest, scientific content, and technical perfection. Films which are not to be used will be returned as soon as they have been reviewed. Films which are accepted will be returned directly after the close of the exhibit. Expert handling, care, storage, and projection of films while in the custody of the committee is promised.

2 All films must be received for consideration on or before March 15. No film received after that date can be accepted. All films must be sent to Dr. John Henderson, 850 Park Avenue, New York City.

3 Sixteen millimeter safety film only, will be accepted for projection. This may be either monochrome or Kodachrome, with

or without sound on film. Exhibitors who desire to lecture as their film is projected may do so through a microphone connected to the regular sound equipment, thus providing a running annotation which greatly increases the interest of the film.

4 No moving picture equipment may be used in the booths provided for scientific exhibits. All film with the exception of that used in the various scientific and general sessions, must be projected in the "theater" provided for that purpose.

5 The most modern type of projection apparatus, operated by a technical expert will be furnished, and must be used for projection. The use of other equipment cannot be permitted.

6 A suitable room has been provided by the Committee on Arrangements, to be known as the Moving Picture Exhibit Theater. Showings will be continuous, each film appearing at scheduled times. This schedule will be strictly adhered to, and will appear in the printed programs, and upon placards outside the theater. Scientific exhibits in booths which have a film as a component unit will display placards stating the times at which that film will be shown.

The Committee expects to offer a program of outstanding merit and educational value, and it is to this end that the cooperation and generosity of the members of the Medical Society of the State of New York is most earnestly solicited.

Kindly address all communications to Dr. John Henderson, 850 Park Avenue, New York City.

VITAMIN D MILKS ACCEPTED

The Council on Foods of the AMA announce in the *Journal* of Jan. 16 the acceptance of various forms of pasteurized evaporated, and dried milk fortified with vitamin D from cod liver oil, ergosterol, and other sources.

In accepting these vitamin D milks, the Council on Foods made the following statements concerning fortification of milk with Vitamin D.

Consequently it seems to the Council to be in the interests of the public as a whole to rec-

ognize and accept the fortification of food with vitamin D.

The Council believes that a moderate amount of vitamin D in addition to that which is normally obtained is a factor of safety in nutrition and health, at least during the period of growth. If the vitamin D addition during childhood and later years is reasonable, e.g., up to four or five hundred units daily, it is believed that possibly some benefit will ensue and certainly no harm.

Of all the common foods available milk is most suitable as a carrier of added vitamin D.

Annual Meeting Headquarters

Rochester—May 24-26, 1937



Top—The Chamber of Commerce Building, 55 St. Paul St., which will house the coming convention.

Bottom—Interior view showing main lounge and mezzanine floor

recommending the reorganization of the Federal Government, one of the provisions of which is that all health activities shall be concentrated in one department, probably the new welfare department. It seems that there can be no objection raised either by the public or by the medical profession to having medical activities collected into one department, but that department should be independent and not a subsidiary bureau of another department. Welfare activities at present are at a peak. It is conceivable that as times improve welfare activities on the part of the Federal Government will decrease, but public health activities will continue to increase in extent and importance for years to come. In order that our Congressmen may have our point of view regarding the reorganization, we have written the following letter to each of them, and we suggest that you, bulletin reader, write to your Congressman somewhat along the same line. He will appreciate having your opinion.

The physicians of New York State are very much interested in reports that come from Washington of plans now under consideration for reorganizing the Government. Naturally, we are most interested in what will become of the various health activities that are now conducted by the Public Health Service and several bureaus in other departments. For several years we have been advocating the concentration of health activities in one department under the direction of a medical man, and it now looks as though our wishes are to be realized.

Your knowledge of the great advances that have been made in the control of epidemics and bacterial diseases in general since the reorganization of our State Department of Health twenty years ago, must convince you of the importance to the State of properly administered public health activities. You will recall that Dr. Biggs, the first Commissioner after the reorganization, insisted that public health is purchasable and that within natural limitations any community can determine its own death rate. He also insisted that the only persons who are qualified and capable of knowing what public health measures should be inaugurated, and how they should be administered, are regular graduates of medicine. New York State was one of the first states to insist upon having all of its health officers qualified by the possession of licenses to practice medicine.

The reorganization scheme was quite revolutionary to the people of that time, but New York's splendid health record of today is entirely the product of the close cooperation that has developed between public health officials and practicing physicians. It is not impossible that a similar benefit may be derived by the whole United States if, in the reorganization plan, health activities are given the importance they deserve.

Speaking for the Committee on Legislation of the Medical Society of the State of New York, may I say that we hope you will see

this matter as we do and insist that supervision of the Nation's health activities be concentrated in a single department, and that not made subservient to another."

Special Bulletin

February 15, 1937

As previously announced, on Friday, February 12th, the Legislative Committee held a conference in Albany with the chairmen of the County Society Committees. Thirty-five County Societies were represented. The bills then before the Legislature were carefully studied. A record of the action taken upon each bill follows.

Senate Int. 20, Pr. 20—Howard—employment agencies—No action.

Comment: It was stated that the features which were objectionable to the nurses have been removed.

Senate Int. 21, Pr. 21—Livingston—social security—No action.

Senate Int. 47, Pr. 47—Williamson—allowance of disbursements under Workmen's Compensation Law—No action.

Comment: Has no relation to medical fees.

Senate Int. 55, Pr. 55—Graves—importation of milk and cream—No action.

Comment: It was stated that milk and cream used for drinking purposes, when imported, must come from dairies that are supervised as closely as those located in the State.

Senate Int. 67, Pr. 371—McNaboe—bureau of narcotic control—Disapproved.

Comment: Its enactment would complicate administration of the Federal Narcotic Law which is considered sufficiently adequate.

Senate Int. 210, Pr. 215—Hanley—settlement of tubercular patients in Livingston County—Approved.

Senate Int. 259, Pr. 265—Twomey—reorganization of Mental Hygiene Department—No action.

Senate Int. 274, Pr. 280—McCall—stamp tax on tobacco—Disapproved.

Comment: Disapproved on the ground that it would establish free dental clinics.

Senate Int. 313, Pr. 319—Feld—medical inspection of school children—Disapproved.

Comment: Representatives from Buffalo, Rochester, and New York felt that medical inspection of school children can be done better by the Department of Health than the Department of Education, and saw no reason for a change.

Senate Int. 316, Pr. 322—Feld—licensing clinical laboratory technicians—Disapproved.

Comment: The definition of a technician is too inclusive, would not permit physician to make his own examinations, would not

COMMITTEE ON LEGISLATION

Bulletin No 4

February 4, 1937

The following bills have been introduced since the issuance of our last bulletin

Senate Int. 397—Feld, Assembly Int 715—Milroe, amends the Education Law relative to the practice of physiotherapy by changing educational requirements and exemptions relative thereto, and providing for revocation of license and disciplinary proceedings Referred to the Education Committees

Comment This bill was prepared by the Department of Education in accordance with a recommendation submitted by a committee appointed by the Regents to make an investigation of the practice of physiotherapy as described in the law That committee considered the matter with our Committee and with several groups of physiotherapists One of the provisions of the amendment is deletion of the section providing for licensure of this type of physiotherapist

Senate Int 481—Twomey, amends the Education Law by striking out from provision that article relative to manufacture and sale of proprietary medicine shall not apply to the sale of such medicine except those which are poisonous, etc Referred to the Finance Committee

Comment The proposed amendment would remove jurisdiction over the sale of proprietary medicines The law at present has jurisdiction over the manufacture and sale of proprietary medicines

Senate Int 483—Twomey, amends the Education Law by defining "chemist" to mean person holding B S degree in chemistry or who has been employed as chemist in manufacturing drugs or medicine for at least five years prior to time act takes effect Referred to the Finance Committee

Senate Int. 484—Twomey, amends the Education Law by providing no pharmacy or drug store shall be registered after July 1, 1937 unless owner is a licensed pharmacist or druggist or shall have had four years' practical experience in pharmacy or drug store, except persons, partnerships or corporations holding certificates Referred to the Finance Committee

Senate Int. 487—Dunkel, adds new section to the Education Law prohibiting sale at wholesale of poisonous or deleterious drugs and medicines or habit-forming drugs, except to those registered by board, section not to apply to sales to state or its subdivisions, or to hospitals, physicians, dentists

or veterinarians Referred to the Education Committee

Assembly Int. 513—Austin, adds new title 4, Labor Law, by regulating hours of labor of employees in charitable or private hospitals, providing for eight consecutive hour day, 48 hour week, minimum 24 consecutive hours for rest, excepts administrative officials, medical staff, superintendents, and ambulance drivers Referred to the Labor Committee

Assembly Int 571—Brownell, creates commission of three senators and two other persons to be appointed by temporary president of Senate, three assemblymen and two others to be appointed by speaker, and three by Governor, two of whom shall be of colored race, to study economic, cultural, health and living conditions of urban colored population, to report on March 1, 1938, and appropriating \$50,000 Referred to the Ways and Means Committee

Assembly Int. 573—Bush, amending the Health Law, prohibiting possession, dispensing or sale after July 1, 1937, by a dispensary without approval of Health Department, of any narcotic preparation described in section 428 Referred to the Health Committee

Assembly Int 574—Bush, amends the Public Health Law by requiring births to be registered within 48 hours instead of five days and relative to issuing certified copies of birth and death certificates, also correcting certain errors Referred to the Health Committee

Assembly Int. 575—Bush, amends the Public Health Law by compelling immediate report by physician examining specimen disclosing communicable disease if results obtained are needed for purposes of release from quarantine or observation Referred to the Health Committee

Assembly Int. 702—E F Moran, amends the Education Law, requiring education boards in cities and union free school districts and school district trustees to employ competent dentists to make inspection of pupils, similar to medical inspection as at present. Referred to the Education Committee

Action on Bills

Assembly Int. 1—Whitney—bovine animals Bang's disease, appropriation—3rd reading

You have read in the newspapers recently the report of the committee to the President

recommending the reorganization of the Federal Government, one of the provisions of which is that all health activities shall be concentrated in one department, probably the new welfare department. It seems that there can be no objection raised either by the public or by the medical profession to having medical activities collected into one department, but that department should be independent and not a subsidiary bureau of another department. Welfare activities at present are at a peak. It is conceivable that as times improve welfare activities on the part of the Federal Government will decrease, but public health activities will continue to increase in extent and importance for years to come. In order that our Congressmen may have our point of view regarding the reorganization, we have written the following letter to each of them, and we suggest that you, bulletin reader, write to your Congressman somewhat along the same line. He will appreciate having your opinion.

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Comment: The definition of a technician is too inclusive, would not permit physician to make his own examinations, would not

permit him to train his office nurse to do them, would disrupt present practice of training technician to do one specific piece of work. Technician's ability is one of skill and for perfection depends upon continual practice. It is inconceivable, therefore, that many persons could qualify as skilled technicians in all of the eleven subjects named in the bill. An examining board consisting of technicians alone would not be desirable.

Senate Int 397, Pr 411—Feld—physiotherapy—Approved

Senate Int 487, Pr 510—Dunkel—poisonous drugs—Approved

Senate Int 573, Pr 600—Wojtkowiak—payment of firemen's medical and hospital expenses—Approved in principle

Comment Disapproval of the manner in which this bill is drawn was expressed, and it was suggested that the matter could be better cared for if the bill were drawn along the lines of the Workmen's Comp Act.

Assembly Pr 826 (Sen Int 1—Dunnigan)—social security—No action

Assembly Int 59, Pr 59—Hammer—old age assistance—Disapproved

Comment It was thought that this might tend to discourage treatment of old-age pensioners in their homes

Assembly Int 179, Pr 179—Zimmerman—social security—No action

Assembly Int 260, Pr 262—Sutor—hospitalization of motor vehicle victims—Disapproved

Comment The definition of an indigent is too inclusive, no provision for compensating doctor and nurse, would admit of grievous abuse and savors of state medicine

Assembly Int 299, Pr 302—Bush—pathogenic organisms and viruses—Approved

Assembly Int 327, Pr 331—Jarema—application for marriage license—Approved in principle

Comment Bill needs amending. A surety of freedom from disease can not be established on one examination nor on an examination taken as long as 30 days in advance. Including other communicable diseases would prevent persons with tuberculosis from marrying

Assembly Int. 335, Pr 339—McCaffrey—physical examination of employees—Disapproved

Comment It was contended that the presence of the attending physician is highly desirable and the presence of the physician for the carrier does not work an injustice to the person examined, and both may be very helpful to the examining physician from the Department of Labor

Assembly Int. 346, Pr 350—Andrews—Division of Syphilis Control in Dept. of Health—Approved

Assembly Int. 355, Pr 359—Breitbart—application for marriage license—Approved

Comment It was conceded that this is a better bill than the Jarema bill, but that it also has obvious weaknesses. Again, on the basis of only one examination no certificate could be given that syphilis was not present.

Assembly Int 471, Pr 476—Moran—enjoining illegal practice of profession—Approved

Assembly Int 476, Pr 721—Turshen—examination of motor vehicle drivers—No action

Comment It was the consensus of opinion that something should be done with regard to the physical examination of those who would drive automobiles, and the hope was expressed that the Department of Motor Vehicles might soon propose some workable plan

Assembly Int 485, Pr 491—Brownell—examination of food handlers—Approved in principle

Comment It was stated that New York City had abandoned its ordinance requiring the examination of food handlers because of the difficulties involved in its administration. Doubt was expressed as to whether this bill could be administered

Assembly Int 571, Pr 580—Brownell—study of health, etc., of urban colored population—No action

Assembly Int 574, Pr 583—Bush—filing of birth records—Disapproved

Comment It was thought that 48 hours is insufficient time for reporting births, because family is frequently not able to decide upon a name in so short a time

Assembly Int. 575, Pr 584—Bush—reporting communicable diseases—Approved

Assembly Int. 702, Pr 715—Moran—dental inspectors for schools—Disapproved

Assembly Int 804, Pr 831—Austin—licensure of laboratory technicians—Disapproved

Senate Int. 598, Pr 634—Feld—advertising by physicians—Approved

Assembly Int. 892, Pr 926—Neustein—health insurance—Disapproved

Assembly Int 900, Pr 934—Taylor—practice of optician—Approved

Senate Int 358, Pr 368—Esquirol—nurse practice—Approved

Comment Certain amendments were considered essential (1) Recasting the definition of nurse so as not to prevent a physician from using his own office assistant (2) nomenclature of second group, (3) more explicit statement of educational qualifications of second group

Assembly Int 370, Pr 374—McCaffrey—nurse practice—Disapproved

Senate Int 600, Pr 636—Feld—nurse practice—Disapproved

Apropos of the communication sent by the Committee to our Congressmen relative to the creation of a Department of Health in the reorganization of the Federal Government the following resolution was read as having been adopted by the Trends Committee and the Executive Committee

That the Medical Society of the State of New York urge that the reorganization of the Federal Government combine in one department

all medical and health activities, making this a separate and distinct department, and urge especially the nomination as chief executive officer of such a department a qualified physician with a record of achievement in administration

Dr Nelms announced that a lien bill has been drafted as an amendment to last year's hospital lien bill and will be introduced in the very near future

HOMER L. NELMS
JAMES L. GALLAGHER
B. WALLACE HAMILTON
JOHN J. MASTERSON
LEO F. SIMPSON

THE SCIENTIFIC PROGRAM COMES TO LIFE

The Italian Medical Center in New York City introduced a new method of presenting and discussing medical and medico-social subjects, devised by Dr Soresi, on January 13, at their monthly meeting in the auditorium at 135 East 55 St. Instead of the customary, too often monotonous and sleep-inducing reading of typewritten manuscripts, short sketches were enacted. The scene, according to subject, was set as occurring in the doctor's consulting room, operating room, emergency room, x-ray room, etc. Thus, for instance, in presenting the subject "Sane, Safe and Practical Criteria in Dealing with Acute Abdominal Cases," by Dr Soresi, the scene represented the emergency room of the hospital. The patient was brought in accompanied by the family physician and some members of the family. Dr Soresi spoke with the members of the family, with the doctor and the patient. He examined the patient, discussed the case and stated the reasons for his actions and considerations as in actual practice. The men invited to discuss the subject were called in, as if they were consultants whose opinion had been requested. Dr Soresi closed by stating what his conduct would be.

In the presentation of the other two subjects, namely "Blood Grouping and Research of Paternity," by Dr DeBiasi and "Contraceptive Methods," by Dr DePietro, the scene represented the consulting room of the doctor's office. A man who is sued as being the father of a child comes to Dr DeBiasi to ask his advice about attempts

to prove that he is not the father of the child by blood tests. Dr DeBiasi discussed the subject as he would in his office in actual practice, answering the different questions of the man who consults him.

A young couple came to consult Dr DePietro because, although married, they cannot afford to have children at the present time. Dr DePietro explained to them the different problems relating to contraceptive methods and answered their questions. As for the first paper, the men taking part in the discussion were called in as consultants.

It is evident, says Dr S. Reale, the Secretary, in a letter to the *New York Medical Week*, that by dramatizing the generally arid medical subjects the audience is kept interested, the dialog prevents monotony and lends life to the presentation and discussion. By proper rehearsing, any medical or medicosocial subject can be presented and discussed much more intelligently and interestingly than by the customary method of having the speaker read a paper and invite discussion from previously selected men or from any member of the audience who often wanders from the subject and makes the whole evening far more interesting.

The scientific program was preceded by a short moving picture satire, "The Emergency Operation," and was followed by an Italian collation.

Members of the medical profession were cordially invited to be present and to give suggestions for the betterment of this novel method of presentation.

The compromise between the Food and Drug Administration and the Federal Trade Commission whereby the former agency is given control over advertising in the provisions set up by the new food and drug bill

opens the way to enactment of the measure, says the *U S Weekly News*, of Washington, D C. Dispute over which agency should control advertising caused the defeat of the bill introduced at the last session.

COMMITTEE ON PUBLIC RELATIONS

The following letter was sent to Chairmen of County Society Committees on Public Relations and others interested in the activities of the State Committee on Public Relations

Dear Doctor

It is the wish of the Medical Society of the State of New York and the Public Relations Committee that agreeable contacts be made with members of the legal profession in each county. It has been suggested that at least one meeting a year be held to which members of the legal profession be invited to attend and to discuss problems of mutual interest. In this way, a better understanding of the problems of the medical profession will undoubtedly result. Some of the county medical societies have done this for several years. We hope if your society has not, that it will arrange for a meeting in the near future.

It was the opinion of the last house of delegates that the formation of Community Health Relations Councils in each county would result in better coordination of health activities. We feel that this matter is one for each county society to originate itself. Problems will of necessity be different in every county. Some such health agencies have already been started in many counties. Members of the medical profession should endeavor to cooperate if not lead in all matters pertaining to health and preventative medicine.

After conference with department heads in the State of New York the Public Relations Committee offered through its executive committee the suggestion that for the better and continued care of patients in Mental Hygiene Hospitals, State Tuberculosis Hospitals, and the State Institute for the study of Malignant Diseases at Buffalo, New York, notice of discharge or parole be given to the family physician or the committing examiners. We feel this will have a very desirable effect and insure correct and continued care of the patient.

The committee has undertaken in cooperation with the Grievance Committee and Legal Department of the State Medical Society, a study of the more frequent causes of malpractice actions. When completed, the results will be compiled and communicated to each county medical society for their information and guidance.

A new Program and Bulletin on the administration of school health service has been reviewed by the Public Relations Committee. It is our opinion, that in the interest

of the child, more careful and complete examinations be made and that it is desirable as many as possible be made by the family physician.

It is not always possible or practicable for the school children to be examined by the family physician and in many such instances regularly employed physicians are doing the work thoroughly and conscientiously, with very satisfactory cooperation from school officials. It is not intended that this communication shall interfere in those places, but rather that it shall help support school officials and physicians so employed where conditions are less favorable, to achieve more efficient and satisfactory examinations.

It is to be hoped that proper and adequate facilities will be furnished and that there will exist between the medical examiner and the school authorities a mutual feeling of harmony and cooperation in the handling of this important piece of work, which may mean so much to the future health and happiness of the child.

Many physical defects found will be corrected by cooperation of the Doctor and Parents. A normal healthy child will attend school regularly, make more progress and have a much better mental outlook. The active cooperation of the parents, medical school nurse, medical school examiner and the family physician, is necessary to obtain the desired results.

The committee is continuing its efforts for the better care of the Deaf and Hard of Hearing children of the State. Last year legislative bills were enacted, which require yearly examinations by scientific methods, to determine hearing acuity, and the reporting of all deaf or hard of hearing children. The early recognition of hearing defects and the correction and treatment of the causative factors, will prevent serious hearing losses later. Legislation will be sought this year to obtain lip reading instruction and other methods, for all children with hearing losses who need this special instruction added to the regular work. Some children with too great a hearing loss to profit by grade instruction, should be in special classes with lip reading and hearing equipment.

The members of the Public Relations Committee of the Medical Society of the

State of New York want to assist you in all problems that come within our scope of activities. We are taking this opportunity to ask you a few questions, referable to your county medical society

1 What has your committee or county medical society done to help establish working relationship with governmental and lay health organizations?

2 Are you undertaking or cooperating at the present time in any important health activity?

3 What educational health activities are occurring in your county?

4 Are the members of the medical profession in your county assuming leadership in all health progress?

We are sure you are living up to the high ideals of the medical profession. The Public Relations Committee will be glad to hear from you in regard to the above. We solicit your advice, suggestions and active cooperation.

Many other problems have come before the members of the Public Relations Committee. Many principles have been established, others are in course of solution. All have important bearing on the future of the medical profession, and the citizens of this state. Leadership, good medical practice and cooperation should be our watchwords.

AUGUSTUS J. HAMBROOK, M D, *Chairman*

THE TRAIL OF THE "TRAILER"

Our motor trails are crowding more and more with "trailers," and it is growing more important that the trail of the trailer shall be a clean one.

As trailers multiply, new sanitary problems arise to disturb our health officials. Foremost are the provision of safe milk and water and the sanitary disposal of human waste. With reasonable care in choice, safe water is readily available along the highway in many states, similarly the obtaining of safe milk, while slightly more difficult, offers no great hazard to the careful purchaser.

The chief source of concern, as the *AMA Journal* notes, is the unsafe or insanitary disposal of human excreta by trailer travelers. Many trailers now provide a small toilet compartment in which excreta may be deposited in cans containing chemical solutions reputed to render the waste innocuous. What to do with the material in the cans is the problem of present concern. No extensive or satisfactory sanitary provisions have been made for the disposal of these wastes and the cleansing of the cans.

Serious consideration, it is believed, must now be given to providing roadside facilities for the sanitary disposal of human waste from auto trailers. State or county departments of health may construct disposal systems near roads frequented by auto trailers, the location of which can be made known by appropriate road signs. Recognition has been recently accorded the problem by the city and county of San Francisco, which has prepared a sanitary code sug-

gested for their citizens when using such conveyances for traveling. According to this code, all trailers should be equipped with an air-tight container of not less than five gallons capacity for the storage of garbage. This container may be emptied only in places approved and so designated by the health authorities of a particular locality.

If the trailer is equipped with running water and a flush toilet, an adequate sewage tank should be provided underneath the trailer for the collection and storage of such waste. The tank should be emptied only into sewer connections or by other approved methods of disposal provided by the community. When equipped with water tanks for household use, the tanks must be inspected by an approved health authority at intervals of six months with reference to the potability of the water. Furthermore, water for filling the tanks should be drawn only from certified sources. The code also imposes regulations concerned with parking, food supply, ventilation, cleanliness, and screening.

The use of pasteurized milk exclusively is recommended, and trailer travelers are warned concerning the need for securing medical attention if illness arises. The desirability of vaccination of children against smallpox and their inoculation against diphtheria is stressed. Even if no further increase in the number of individuals traveling and living in automobile trailers should occur, it is definitely incumbent on local health authorities to enact and enforce suitable legislation covering the health problems raised by this migratory population.

REWARD

On January 12, 1937, Homer S Cummings, Attorney General of the United States, under authority vested in him by an Act of Congress offered a reward of

\$10,000.00

for information furnished to a representative of the Federal Bureau of Investigation, United States Department of Justice leading to the identification and apprehension of the person or persons responsible for the kidnaping on December 27, 1936 and subsequent murder of CHARLES FLETCHER MATTSON, ten-year-old son of Dr and Mrs W W Mattson of Tacoma, Washington

The person who kidnaped Charles Fletcher Mattson from the residence of his parents on the night of December 27, 1936 is described as follows

Age	About 30 years
Height	5 feet 7 or 8 inches
Weight	145 to 165 pounds
Complexion	Swarthy
Peculiarities	Did not stand erect, dimple in chin, high cheek bones, nose appeared to be broken a little below center, had hairy hands
Speech	Slightly foreign accent, spoke brokenly, appeared to be of Southern European extraction

\$10,000



This photographic reproduction is of an artist's drawing of the man who kidnaped Charles Fletcher Mattson, ten year old son of Dr and Mrs W W Mattson of Tocoma Washington from the residence of his parents, at approximately 9 P M on the night of December 27, 1936. The drawing has been made from oral descriptions of the kidnaper by children who were at the home of Dr Mattson at the time of the abduction.

All claims to any of the aforesaid reward and all questions and disputes that may arise as among claimants to the reward shall be passed upon by the Attorney General and his decision shall be final and conclusive. The right is reserved to allocate portions of the reward as among several claimants. No part of this reward shall be paid to any official or employee of the Department of Justice.

If you are in possession of any information concerning the identity or whereabouts of the perpetrators of this offense, it is requested that you communicate immediately by telephone or telegraph, collect, with the nearest division of the Federal Bureau of Investigation, United States Department of Justice, the addresses of which in New York State are set forth below or directly with the National Headquarters of the Federal Bureau of Investigation at Washington, D C, telephone

NATIONAL 7117.

Communicate with local Bureau office, 607 U S Court House, Foley Square Tel Rector 2 3520 New York City, or 612 Marine Trust Tel Cleveland 2030, Buffalo

JOHN EDGAR HOOVER, DIRECTOR,
FEDERAL BUREAU OF INVESTIGATION,
UNITED STATES DEPARTMENT OF JUSTICE,
WASHINGTON, D C

WORKMEN'S COMPENSATION

State Industrial Commissioner Elmer F Andrews delivered this informing and important address before the Medical Society of the County of Queens on January 26 The Commissioner said in part

To insure adequate care and treatment of the injured worker is the purpose of the medical practice amendments to the Workman's Compensation Law under which we have operated for more than a year and half Underlying this purpose is a principle as old as the theory of workmen's compensation

When interpretation of the common law denied to a servant the remedy for personal injury which a stranger might obtain against a master, and later when employer liability laws permitted redress for an employee only under severely restricted conditions, it became necessary to protect a worker's physical and economic welfare by providing compensation for physical injury arising out of and in the course of employment, the cost of which would be charged against industry without inquiry into whose fault caused the injury Laws and jurists laboring under the old tradition have habitually emphasized the sanctity of property rights and been inclined to sacrifice human rights The Workmen's Compensation Laws were the most important of the earlier statutes enacted in the newer tradition of giving prime consideration to preserving human rights by governmental action

Doubtless the need for legal safeguards for workers has been impressed upon the medical profession much more widely during the past year because of the provisions of the medical amendments which give to the County Medical Societies such an important part in the administration of the Law Much of our effort under the amended Law has been to set up the administrative machinery Those operations are not yet completed nor perfect They involve innumerable details and questions which at times may seem to demand our entire attention But we must not let this divert us from the main objective of the medical amendments, namely the welfare of the injured worker Our detailed arrangements and the answers to our questions must be pointed directly at this objective, and where any doubt arises, the benefit should be accorded the interests of the injured worker even at the expenses of others involved

Of the 30,000 physicians licensed to practice in New York State, 13,803 have applied for and received authorization to practice in workmen's compensation cases as required

by the amendments Three-quarters of these authorized physicians are in the Metropolitan District comprising the counties of New York, Bronx, Kings, Queens, Richmond, Nassau, Suffolk, Rockland, and Westchester The remaining authorized physicians are about evenly divided among the four upstate districts centering in Albany, Syracuse, Rochester, and Buffalo, ranging from 953 in the Rochester District to 1,431 in the Albany District.

Fifty-nine medical bureaus have been licensed under the amended Law, seventy-seven more have been approved, one withdrew its application for a license and twenty-nine bureaus were refused authorization while the applications of 243 more are pending

Medical bills to be set for Arbitration Committee hearing number 2,274, and 1,691 medical bills have been protested and adjusted without arbitration Another 1,704 protested medical bills are being held pending receipt of further information One hundred fifty-three protested hospital bills were adjusted without arbitration and fifty-six are pending Twenty-eight protested medical bills and one hospital bill in self-insurers' cases have been adjusted without arbitration, and forty-two medical and one hospital bills in no-insurance cases, while pending there are twenty-two doctors' bills and four hospital bills under self-insurance, and 168 doctors' and eleven hospital bills under no-insurance This is a total of 6,155 protested bills which have come to the attention of the Compensation Medical Registrar

Arbitration of protested bills is provided for under the Law as follows

If the parties fail to agree as to the value of medical aid rendered under this Chapter such value shall be decided by an arbitration committee consisting of two physicians designated by the President of the Medical Society of the County in which the claimant resides, and two physicians, also members of the Medical Society of the State of New York, appointed by the employer or carrier The majority decision of the Arbitration Committee shall be conclusive upon the parties as to the value of services rendered In the event of equal division, the Committee shall select a fifth physician, also a member of the Medical Society of the State of New York, whose decision shall be conclusive.

In a case involving osteopaths, such physicians shall constitute the Arbitration Committee.

No Arbitration Committee has yet heard a disputed bill. Besides the 1916 of the bills coming to the attention of the Labor Department which were adjusted without arbitration, there is reason to believe that many have been adjusted directly between the concerned parties without coming to the attention of the Registrar's office. Legal authorities advise us that such direct adjustments are permissible despite the requirements of the Law that charges be made in accordance with a minimum medical fee schedule. However, there are 4,239 protested bills still awaiting the action of an Arbitration Committee. This is a matter wholly within the province of the physicians themselves.

On the other hand some physicians have complained because of their inability to collect their bills when the injury treated proved to be non-compensable. Naturally then, they could not collect from a carrier or employer, although in many cases insurance carriers do pay for these bills. Otherwise, their charge automatically transferred against the injured worker whom they treated and from him it is collectible. There has also been some difficulty in collecting medical and hospital bills properly chargeable and collectible from non-insured employers. The medical amendments failed to provide any specific enforcement or penalizing clauses for such cases.

The State Supreme Court in an opinion by Justice Shientag has ruled that the medical amendments to the Workmen's Compensation Law preclude a physician not authorized for compensation practice to collect his fee under the common law. In his opinion, Justice Shientag upheld the constitutionality of the medical provisions of the Law. The plaintiff physician filed an appeal from Justice Shientag's decision on which the constitutionality of the medical amendments will be argued before the State Court of Appeals next month.

Administrative rules and regulations clarifying and applying the medical practice provisions and a minimum medical fee schedule for the Metropolitan District have been adopted and promulgated. Forms for notices, applications, certificates, etc., have been designed, printed and distributed and in use for several months. The Medical Sub-Committee of the Industrial Council has conducted innumerable meetings and not a few hearings on appeals by physicians from County Medical Society refusals to recommend authorization for compensation practice. Procedure under which such ap-

peals can be heard and determined and procedure for arbitration of disputed medical and hospital bills were determined upon.

In authorization of physicians the question was brought up by some applicants as to the validity of the waiver of rights of redress in the event of adverse recommendation by the County Medical Society which passed upon the application. The opinion of the Attorney General supported the contention of the applicants and the waiver has been eliminated from the application blanks.

Administration of the medical provisions of the Law presented fourteen questions upon which the opinion of the Attorney General was secured. Most important of these interpretations of the Law were those:

Defining the nature of evidence necessary to sustain a charge of solicitation.

Defining the rights, duties and limitations of the Medical Sub-Committee of the Industrial Council.

Defining the extent of authority to be exercised by Medical Compensation Boards of County Medical Societies and the latitude to be allowed in considering applications filed by physicians.

Ruling that lay-owned or incorporated x-ray laboratories seeking licenses must be given consideration and acted upon.

Ruling that compensation x-ray and diagnostic laboratories may submit bills direct for services rendered by physicians employed by them.

Ruling that insurance carriers and employers shall pay all bills submitted by public hospitals in the City of New York which include items for services rendered by the hospital physicians. This ruling was predicated on the clause appearing in the City Charter which provides that such physicians shall serve the hospitals without compensation.

Ruling that it is not necessary to be listed on the panel of authorized physicians in order to make mere physical examinations of injured workers and give testimony for claimants at hearings, that the claimant may pay for such services, and that only such physicians as render treatment of a compensable injury are stopped from receiving fees from claimants.

Ruling that the medical amendments do not apply to dentists.

Among the difficulties encountered during the first year and a half of administering the new provisions of the Law was the abuse of the injured employee's waiver of his right to free and unrestricted choice of the physician to attend him. The Law permits employers to recommend authorized physicians to their injured employees only when a written request for such a recommendation is made by the worker. The forms in which such requests were written varied widely and many were regarded as mere subterfuges to evade the Law and compel the workers to employ a company physi-

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PNEUMONIA CONTROL PROGRAM

Prize for Report on Cases of Pneumonia

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the NEW YORK STATE JOURNAL OF MEDICINE

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1

Address further inquiry to

Dr Edward S Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N Y

cian This evil was met and the worker assured of the protection which the Law intends to give him by the prescription of a standard waiver form which, after requesting the employer's recommendation of a physician, contained the following reservation

Nothing herein contained shall prevent me from subsequently engaging the services of an authorized physician of my own choice for continuance of any medical treatment or care required

The question of a fee differential for upstate districts presented another difficulty not so easily solved Even with the Minimum Fee Schedule for the Metropolitan District as a basis the Medical Sub-Committee and representatives of insurance carriers, employers, insurance buyers and the State Medical Society have been unable to agree on a schedule which the Industrial Commissioner could promulgate for upstate At the upstate hearing on the proposed schedule, the physicians generally were opposed to any lower minimum rates than those already effected in the metropolitan area while employers and carriers generally believed there should be downward differential of varying degrees for different localities A compromise proposal granting varying differentials on a percentage basis of the Metropolitan Schedule was so unfavorably commented upon that the question was allowed to remain in status quo and the upstate physicians have continued to make their charges as they did under the unamended Law

Employers and insurance carriers also have raised objection to the adoption of a hospital fee schedule on the ground that the Law does not authorize the Industrial Commissioner to promulgate such a schedule, and the Attorney General has recently given his opinion that this is so In considering the proper per diem rate for hospital service, it was agreed that the insurance carriers, insurance buyers, employers, hospitals and the Industrial Commissioner each select a certified public accountant who should constitute a committee to make an audit of hospital expenses and charges and report their findings to be used as a basis for determining the minimum per diem rate for a hospital fee schedule

Due to the ambiguity of the Law, the matter of securing authorization in operative cases presents a vexatious problem The Law merely provides that if authorization is withheld by the employer or carrier, the Industrial Commissioner shall be appealed to But it is obvious that the Commissioner is not equipped with facilities for determining such an appeal Nor does the Industrial Council believe that he should attempt to assume either the medical or the financial responsibility involved The Council has taken the position that the attending physician or hospital must assume the responsibility for determining the necessity for an operation and the financial risk if the injury proves non-compensable

The Medical Sub-Committee has heard many appeals by physicians dissatisfied with ratings on qualifications assigned by Medical Compensation Boards of various County Medical Societies In the majority of instances, the Sub-Committee upheld the Boards The Law, however, fails specifically to provide the right of appeal from decisions of the Boards on applications for licenses to operate medical bureaus On this point as well as on the enforcement of payment of medical bills by non-insured employers and the penalizing of an unauthorized physician practicing in compensation cases, the Law would seem to need further amendment to clarify and implement it

Doubtless there will be many amendments to the Workmen's Compensation Law presented at the present Legislature which should receive your close study as physicians who will be affected thereby They should all be directed to the board purpose of further protecting the injured worker As I understand it, restrictions which are placed around the authorization of physicians to practice in compensation cases are not to be construed as an intent to restrict the injured worker in his choice of physician, but rather are a restriction on physicians to insure the injured worker of competent treatment Any amendments affecting this phase of the Law, I believe, should be to broaden the freedom of choice of physician rather than to limit it

WHEN THE MEDICAL MIND IS RECEPTIVE

The *Bulletin* of the Broome County Medical Society believes that medical manufacturers would do well to take space in an office building and set up displays of their

products where doctors could visit them at their leisure and learn their value It urges them, also, to do more sampling and demonstrating at medical conventions

Medical News

Secretaries of County and local Medical Societies are requested to send the programs of coming meetings to this department one month in advance, for the information of members who may be interested

Albany County

DR. JOHN J. RAINEY addressed the Eastern New York Eye, Ear, Nose and Throat Society at Albany on Jan 20. His topic was "The Nasal Accessory Sinuses."

DR. EUGENE E. HINMAN, sixty-two of Albany, died on Jan 20. He was a former president and for several years program chairman of the Medical Society of the County of Albany. "We looked upon Dr. Hinman as the foremost man in his specialty in this part of the state," said Dr. Arthur J. Bedell. "I knew he was a man on whose judgment I could always rely and in whose skill I could always place faith." Dr. Hinman's hobby was Masonry. He was master of Temple lodge of Masons, a past high priest of Temple Chapter of Royal Arch Masons, past master of DeWitt Council, of Royal and Select Masters and for a year was Grand Master of the Grand Council of that order.

Allegany County

"BLOOD BROTHERS," A GROUP OF 116 volunteer American Legion members ready to give blood for transfusions in emergency cases for the saving of life, have been listed for the convenience of physicians through a year's cooperative work by the Allegany County American Legion and the Allegany County Medical Society.

The names, addresses, telephone numbers of volunteers ready to become donors of blood on demand, along with the type to which they belong, are now on file in the office of the county bacteriological laboratory. When a demand arises suddenly for a certain type of blood in any community within the county, physicians there have but to communicate with the laboratory at the county seat to be put into touch with the person of a type best suited to any certain patient. There need be no waiting for the making of tests to determine types.

It is the consensus of opinion within the county medical society and the committee arranging the list of "Blood Brothers" that any arrangement for payment for blood given by a donor should be made between the patient and any individual of the proper type asked to aid with blood in a transfusion.

If the patient has ample means, he or she is expected to pay the donor for the assistance given.

Thus far, two men on the lists have been used for emergency transfusions. An Andover patient in a Mt. Morris hospital needed blood. The county laboratory was called and the names of Andover American Legion members of the proper type furnished the family. These two donors were taken to Mt. Morris by the family and were of immediate assistance in a transfusion operation.

Broome County

MR. SHERMAN D. MEECH, Managing Director, Rochester Service Corporation spoke on "Experiences in Hospital Insurance as carried out in Rochester, N. Y." at the meeting of the Broome County Medical Society on Feb 9.

Cattaraugus County

TWO OLEAN PHYSICIANS were the principal speakers at a meeting of the Cattaraugus County Medical Society in the Olean House on Jan 26. The speakers were Dr. L. J. Atkins and Dr. E. D. Putnam. The latter discussed varicose veins, while Dr. Atkins reported on the recent venereal disease control conference at Washington. Dr. Atkins presented a similar report at a medical society meeting in Salamanca on Jan 25.

Cayuga County

A PAPER ENTITLED "The Relation of the Sympathetic Nervous System to Problems Arising in General Practice," was read before the Cayuga County Medical Society by Dr. Frederick S. Wetherell, Associate Professor of Clinical Surgery of the Syracuse University College of Medicine, on January 21, at the Auburn City Hospital.

Chemung County

DR. B. R. KIRKLIN, president-elect of the American Roentgen-Ray Society, spoke at the first 1937 dinner meeting of the Chemung County Medical Association held in the Mark Twain Hotel in Elmira on Jan 28.

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it.

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the *Pneumonia Editor*, *New York State Journal of Medicine*, 33 W 42 Street, New York City—Editor

Case 3

Report from the records of Joseph F Kenzie, M.D., Prattsburg

"A boy, sixteen years of age, contracted what he considered to be an acute upper respiratory infection on December 26. While the cold was apparently more severe than usual, it was not attended by any cough. About 1 day and a half later, he had a sudden chill, marked elevation in temperature, and commenced coughing and raising blood sputum.

"Examination, a short time after the development of these symptoms showed a temperature of 102.8° F, pulse 120, and respirations 24. There were no physical signs in the chest except diminished breathing over the right lower lobe.

"A sputum specimen was obtained promptly and sent to the nearest diagnostic laboratory (Bath)—a distance of about fifteen miles. Type I pneumococci were identified by the Neufeld method and a supply of Type I concentrated antipneumococcus serum (New York State Department of Health) returned by messenger.

"The patient gave no history suggestive of allergy and both the intradermal and ophthalmic tests for horse serum sensitivity were negative, so serum administration was instituted without further delay.

"The first dose of serum, forty c.c. (50,000 units) was given by the gravity method. The serum was diluted in 200 c.c. of saline and glucose solution and administered over a period of sixty-five minutes. This dose was attended by no undesirable reactions nor was there any evidence of a favorable effect.

"At 6 P.M., about one and one-half hours after the serum had been given, the temperature had risen to 103.6° F, pulse and respirations were essentially unchanged.

"At 10:30 P.M. a second dose of the same amount (40 c.c.) of serum was given by the same method, 150 c.c. of saline and glucose solution being used and the administration by gravity consuming a period of forty-five minutes.

"An hour later, the temperature had fallen to 101.8. At 8 A.M. the following morning (the second day of the disease) had reached 99, the pulse 96, and respirations 20.

"The convalescence was completely uneventful. Though the serum was felt to

have been most effectual, it is interesting to note that the course of resolution was not appreciably altered."

Dr Kenzie's case presents a number of interesting points worthy of discussion. It well illustrates the dramatic results of the adequate and very early use of serum. While it is impossible to deny that first and second day crises are occasionally encountered in cases which do not receive serum, their occurrence with Type I pneumococcus pneumonia is sufficiently rare so that such a result cannot be expected even in a young man of this patient's age.

Also, noteworthy is the manner in which this case illustrates the application of modern methods of scientific medicine in the home quite remote from the advantages of hospital and city practice.

The use of saline solution or saline and glucose up to about ten per cent is frequently recommended in serum administration. It is not, however, essential and in cases where there is some evidence of myocardial damage might even be harmful by causing too great an increase in the blood volume and load upon the heart. It has two advantages, it gives valuable fluid and chlorides and it facilitates slower serum administration. When such a method is employed, however, care must be exercised to keep the solution at body warmth throughout the period of injection.

Dr Kenzie's comment regarding the period of resolution is of interest. It has been the observation of most physicians with large experience in the use of serum in treating pneumonia, that the duration of resolution and the convalescent course are unaltered by serum, being of the same duration and requiring the same care as they would if serum had not been used. Not infrequently, in fact, the pulmonary lesion has been observed, by x-ray, to progress somewhat following serum treatment even though it has produced a prompt clinical response. The consolidated lung must resolve from whatever stage it has reached at the time the active progressive phase of the disease terminates. Serum may influence resolution only inasmuch as it aids in the earlier termination of this acute progressive phase and may shorten the resolving period in a preventive sense.

Kings County

DR. LUTHER FISKE WARREN, fifty-one, president of the New York State Board of Medical Examiners, and a medical practitioner in Brooklyn since 1912, died on Jan 18 in his home. He was formerly president of the Medical Society of Kings County. Dr Warren had been physician in chief of Long Island College Hospital and St John's Hospital, medical director of the Brooklyn Home for Consumptives and consulting physician at Methodist Episcopal Hospital, Coney Island Hospital, Harbor Hospital, Brunswick General Hospital and Lutheran Hospital.

DR. ELIAS HUDSON BARTLEY, educator and author, who was Professor of Chemistry, Toxicology and Pediatrics at Long Island College for many years, as well as chief chemist of the Health Department in Brooklyn from 1882 to 1888, died at his home on Jan. 12. He was eighty-seven. A practicing physician for more than fifty years, Dr Bartley served during his career as consulting pediatricist of several hospitals and as chief of the department of pediatrics at the Brownsville and East New York Hospitals in Brooklyn. He was formerly president of the American Society of Public Analysts, Associated Physicians of Long Island, Brooklyn Pediatric Society and the Medical Society of the County of Kings.

EARLY DIAGNOSIS and treatment is essential to the cure of heart ailments, Dr Louis F Bishop, Jr, associate visiting physician in Bellevue Hospital, Manhattan, told two hundred physicians gathered in the Aperia Manor for the installation of officers of the Ocean Medical Society, on Jan 18. Dr Harry S Levine, a member of the society, discussed "Bone Formations," and another speaker was Dr Tasker Howard, attending in medicine in Long Island University. Dr Benjamin Brodie was installed as president by his predecessor, Dr Morris Brooks. Others inducted were Dr Sidney Nussbaum, president-elect, who will succeed Dr Brodie next year, Dr Peter Kane, vice president, Dr Moses Goodman, treasurer, and Dr Harry Weiner, secretary.

THE MONTHLY MEETING of the Bay Ridge Medical Society was held on Jan 12, at the Shore Road Academy. A paper was presented by Dr Robert A. Wilson, Obstetrician at the Methodist Episcopal and St Mary's Hospitals, on "Imitation of Respiration in Asphyxia Neonatorum," accompanied by lantern slide and motion picture demonstration. In another paper, Dr Frank

Chisena summarized the autopsy findings in a series of eighteen stillborn babies.

THE RIDGEBORO MEDICAL SOCIETY held its January meeting at Gregory's. Dr Tasker Howard, professor of Medicine at the Long Island College of Medicine, spoke on "Disease of the Coronary Arteries." Dr Clifton Bogardus, president of the association, announced that the newly elected officers would be installed at the next meeting.

Monroe County

COOPERATION OF THE PHYSICIANS of Rochester with law enforcing agents in combating drunken driving was urged as a civic responsibility before the Allied Temperance Forces by Dr Floyd S Winslow, on Feb 2. Speaking at the annual dinner meeting Doctor Winslow outlined a plan for creation of a physicians' board, members of which would be on police call to examine all drivers arrested for recklessness. "Successful operation," warned the New York State Medical Society head, "calls for nerve on the part of the physician. That goes for judges, too." The physician declared that without immediate examination, it is impossible to ascertain accurately whether a driver is under alcoholic influence at the time of his arrest. A plan similar to Doctor Winslow's proposal is now being operated in Hempstead, L I.

New York County

THE NEW YORK PHYSICIANS' ART CLUB. Dr J Seth Hirsch, president, Dr Henry Bancel, vice president, Dr F Morgan Hartshorn, treasurer, will hold its Tenth Annual Exhibition from April 3 to 17, inclusive, at the New York Academy of Medicine. Original paintings, drawings, sculpture or art-handicraft by physicians are invited and must be submitted before March 13. For application blanks and full details apply to the Secretary, Dr Louis C Schroeder, 50 E. 72 St., New York City.

ELEVATION OF THE STANDARDS for medical, surgical, and social service care of diabetes patients in the clinics of New York City are the objectives of the Committee on Diabetes Clinics of the New York Diabetes Association. The Committee announces its first public meeting, to be held at Cornell University Medical College Amphitheatre, 1300 York Avenue, New York City, on March 5, at 8 30 P M. Elaine P Ralli, M D, chairman of the Committee on Diabetes Clinics, will open the program with a report on minimum requirements. The

Doctor Kirklin's address, "Clinical Indications for Roentgenologic Examination of the Alimentary Canal," was illustrated with stereopticon slides of plates made at the Mayo clinic where the speaker is head of the section on Roentgenology

Chenango County

DR EARL W WILCOX, Chenango county coroner for thirty-five years, died at the Chenango Memorial Hospital in January after a brief illness. Dr Wilcox practiced medicine in New Berlin for forty years. A past president of the Chenango County Medical Society and many times its delegate to the state conventions, he was held in high esteem.

Cortland County

DR F R THOMPSON AND DR CLAUDE E CHAPIN were reelected president and vice-president respectively of the Cortland County Board of Health at the monthly meeting on Jan. 18 at the public health office in the county building at Cortland.

DR LEO E GIBSON spoke before the Cortland County Medical Society on "Infections of the Kidney and Treatment" on January 15, at the Cortland Free Library.

Erie County

IN COMPANY WITH OTHER CITIES throughout the country, Buffalo, through the Medical Society of the County of Erie, sponsored meetings held February 5 to disseminate knowledge in regard to syphilis and at the same time to familiarize the public with what the various government and private agencies aim to do in an effort to prevent the spread of the diseases and accomplish proper treatment.

A meeting for the laity was held in the afternoon, and for the professions in the evening. Dr Paul A. O'Leary, head of the department of dermatology and syphilology, Mayo Clinic, and Dr George H. Ramsey, assistant commissioner for preventable diseases, New York State Department of Health, addressed both meetings. Dr O'Leary stressed the point that the veil of secrecy that has covered the so-called social diseases must be lifted if the drive of medical science is to succeed, and declared that the disease can be cured completely if treatment is begun soon enough. Dr Ramsey dwelt on the State's syphilis control program. He stated that it is cheaper for the State to eradicate the disease than it is to care for sufferers, and

estimated that the State spends more than \$2,500,000 annually to care for victims of the scourge treated in institutions.

The Society's Committee on Public Health, with the Chairman, Dr Nelson W. Strohm, in charge, arranged the successful gatherings of physicians, dentists, and the laity, as outlined by the American Social Hygiene Association.

DR HARRY C GUESS, Chairman of the Educational Committee of the Medical Society of the County of Erie, has announced that the committee this year will devote its activities to the presentation at various hospitals of a program on traumatism.

The course of lectures began February 18 and will continue every Thursday afternoon until April 8. The purpose is to assist the medical profession to render the very best care in the treatment of injured workers. The speakers selected have been especially trained for the subjects they will discuss.

Essex County

THE ESSEX COUNTY RELIEF Committee and the Essex County Medical Committee have agreed upon the following hospital and medical rates for county cases. Routine calls for cases in hospital not to exceed three calls in any one week without special authorization by the county commissioner or the local welfare officer. When applying for additional calls application must be in writing giving reason for same and signed by physician making application, \$1.50, emergency or first call, \$2, office calls for county cases such as boarding homes for children, \$1, house calls for above, \$2, hospital rates per day not to exceed \$3, obstetrical cases including prenatal and postnatal care up to twelve days, \$25, maximum general anesthesia when given by a physician, \$7, consultation in hospital cases when authorized by the commissioner of public welfare, \$3.

Surgical fees. Major operations, except tonsillectomy, \$50, minor operations, \$25, no x-rays without special authorization by the commissioner of public welfare or by the local welfare officer.

Prescriptions for drugs or their equivalent that are included in hospital free drug list will be deducted from the bill.

Major operations.—The opening of a body cavity or the amputation of the main part of the limb. **Tonsillectomy.**—Rates for tonsillectomy to be decided by physician and commissioner of public welfare prior to the operation. **Minor operations.**—All other operations not major requiring an anesthetic.

MEDICAL NEWS

March 1, 1937]

On Feb 19, Dr Merwyn Armstrong, F.A.C.S, Attd. Obst. & Gyn, Long Island City Hospital and Asso Att Obst. & Gyn Caledonia Hospital spoke on "Management of Hemorrhages in the Latter Months of Pregnancy"

Schenectady County

PHYSICIANS AND SURGEONS of the Capitol District heard Dr Wayne Babcock, professor of surgery at Temple University Medical School in Philadelphia, speak in Schenectady on Jan 23, at a dinner and science meeting of the Eastern New York Chapter of the Pan-American Medical Association at the Mohawk Golf Club, on "Diagnosis and Treatment of Intestinal Maligancy"

DR. LAWRENCE K. DUGAN, sixty-two, of Delanson, died of suffocation and burns in a vain effort to put out a fire that started in the living room of his home on Jan 23

According to officials of the Delanson fire department, he was found lying beside a front bay window, with an empty water pail nearby. Officials said that he had apparently been trying to battle the fire alone, and blinded by smoke, tried to get out of the house when he collapsed. Dr Dugan failed to rally to resuscitation, administered by members of the department. Two inhalators were rushed to the scene, one from the Schenectady fire department and one from the New York Power and Light corporation in Schenectady. It is thought that he fell asleep on a sofa while smoking a cigarette, which fell from his fingers and ignited the sofa or a rug

Suffolk County

AT THE ANNUAL MEETING of the Suffolk County Tuberculosis and Public Health Association on January 11 in the office of the association in Riverhead, all officers were reelected as follows

Dr Frank S Child, president, Frank B Smith, first vice president, Mrs Verne L Rockwell, second vice president, Mrs Allan Heath, third vice president, John S Howe, treasurer, Elizabeth C Wells, MD, secretary

A LETTER WAS RECEIVED at a recent meeting of the Comitua Minora of the Suffolk County Medical Society from Mrs Barnhardt, President of the Woman's Auxiliary of the County Society, requesting the approval of a resolution adopted by that organization to be submitted at the next annual convention of the Auxiliaries of the Medical Societies of the State of New York.

This resolution would require the compulsory examination of all public school teachers. The resolution was approved after being amended, that all public school teachers be required to present a health certificate and a chest x-ray picture

Ulster County

THE WINTER MEETING of the Ulster County Medical Society was held at the Governor Clinton Hotel in Kingston on Feb 2. The speaker at the scientific session was Dr W C Thompson, medical consultant division of social hygiene, state department of health. His subject was diagnosis and treatment of early syphilis

Warren County

DR. IRVING R. JUSTER AND DR. JOHN W CANADAY presented papers at a meeting of the Glens Falls Academy of Medicine on Jan 29 in the academy auditorium of the Crandall Library. Dr Juster discussed "The Significance of Rheumatic Activity in Chronic Rheumatic Heart Disease." Dr Canaday spoke on "Mumps Meningitis"

Westchester County

AS TOLD IN THE WHITE PLAINS newspapers, "Dr Benjamin F Barnes, supervisor from Yonkers' third ward, wants more identification for physicians on the highways

"A week ago Dr Barnes arrived at 3 25 as the supervisors adjourned. Yesterday he came at 3.20, his hands black from tire-changing, but still in time to present a resolution

"By its terms all physicians in the county would be authorized to equip their automobiles with signs, a bright red light on top and a siren

"Supervisor Locke, Yonkers, moved to amend 'Let the equipment also include a fireman's hat and axe,' he suggested

"Supervisor Gleeson, also from Yonkers, offered still another amendment

"And paint the picture of a stork on the side of the car,' he interjected

"The resolution was referred to the committee on legislation where today it was noticed in one of the smallest pigeonholes"

DR EDWIN G RAMSDELL, White Plains surgeon, has been reelected president of the Westchester County Board of Health. Nelson A. Rockefeller, son of John D Rockefeller, jr, was reelected vice president. He resides on his father's estate at Pocantico Hills. Dr Edward H Marsh, deputy health commissioner, was reelected secretary

scientific paper of the evening will be "Pregnancy in Diabetes," by Edward Tolstoi, M D, and Robert Gordon Douglas, M D, with discussion by William Studdiford, M D, and George E. Anderson, M D. Physicians working in diabetes clinics and all others interested are cordially invited to attend.

DR RUSSELL L CECIL, Professor of Internal Medicine at the New York Polyclinic Medical School and Hospital, gave a special afternoon lecture on January 13 on Streptococcal infections and their treatment.

At the January meeting of the Polyclinic Clinical Society, the following program was presented: "The frequent failure to recognize the presence of disease of the nasal accessory sinuses" by James W Babcock, M D, Presbyterian Hospital, (by invitation). The discussion was opened by Russell L Cecil, M D, Horace S Baldwin, M D (by invitation) and Max Halle, M D. The second paper of the evening was "Endocrine obesity in children" by Murray B Gordon, M D. The discussion was opened by Samuel Z Levine, M D, (by invitation), Irving H Pardee, M D, (by invitation) and Sidney V Haas, M D.

At the February meeting of the Polyclinic Clinical Society, the following program was presented: "The role of acute infection in hypertensive cardiac failure" by James R Lisa, M D, City Hospital of New York (by invitation). The discussion was opened by Harold E B Pardee, M D and John Carroll, M D. The second paper of the evening was "Recent advances of thoracoplasty collapse in pulmonary tuberculosis" by Pol N Coryllos, M D. The discussion was opened by George G Ornstein, M D (by invitation) and James S Edlin, M D.

The following program will be presented at the March meeting of the Polyclinic Clinical Society: "The vermiform appendix, its physiology and pathology" by H A Royster, M D, Raleigh, N C and "Carcinoma of the breast, with sound films in color" by Herbert C Chase, M D.

Oneida County

DR. M T POWERS is the new president of the Utica Academy of Medicine. He was elected on January 21, at the annual meeting in Hotel Utica. Other officers: Vice-president, Dr William W Wright, secretary, Dr F M Miller Jr, treasurer, Dr H D Parkhurst, trustees, two years, Dr R C Borst, Dr Ross D Helmer, Utica, and Dr Fred C Sabin, Little Falls. Dr T Wood Clarke delivered his address as

retiring president. Dr G M Fisher explained the institute for eradication of syphilis and the academy passed a resolution endorsing it. Speakers of the evening were Dr John H Powers, on "Congenital Bands and Adhesions About the Terminal Ileum" and Dr Meinolph V Kappius, Boston, on "Hemorrhage in the Last Trimester of Pregnancy" and "Practical Considerations in Pregnancies Complicated by Hypertension and Albuminuria."

Onondaga County

THE WOMAN'S AUXILIARY to the Onondaga Medical Society met on Feb 2 in the nurses' recreation room at the Syracuse Memorial Hospital and listened to a paper by Dr Harry A Steckel on "Mental Hygiene," followed by a social hour.

Oswego County

THE REGULAR DINNER MEETING of the Oswego County Medical Society was held at the Oswego Flks Club, on February 9. Dr Fred Hiss spoke on heart problems in relation to general practice.

Queens County

DR. HAROLD LIGGETT, Fellow of the American College of Surgeons, addressed the Queens Medical Society on Jan 22 on the "Mechanism of Hoarseness: Its Medical and Neurological Aspects," at the society building.

DR. JACK SARNOFF was installed as president of the Long Island City Medical Society on Jan 21. Dr Sarnoff is on the attending laryngological services of St John's Hospital, Long Island City, and the Queens General Hospital, Jamaica. His offices are in Astoria. Dr James Dobbins, past president of the Queens County Medical Society, was the installing officer. Other new officers of the society are Dr Arthur A Fischl, vice-president, and Dr Joseph Drago, secretary-treasurer.

MRS JOHN W MAHONEY, president of the Woman's Auxiliary to the Medical Society of the County of Queens, Inc., entertained the chairmen of standing committees at a luncheon at her home on Jan 25. Plans for the coming year were discussed.

DR CHESTER L DAVIDSON, F A C S, Asso Surgeon, Jamaica Hospital, Surgeon, Queens General and Cumberland Hospitals, Chief Surgeon at Cumberland Dispensary, spoke on "Ankle Fractures" illustrated by lantern slides, on Feb 5 at the County Society Building.

the diagnosis of the patient being treated in the rooms which he passes, according to *The Modern Hospital*. A fragrant winter-green odor suggests acute articular rheumatism or some of its variations, the spicy turpentine odor, that abdominal distension is being treated by stupes and the aromatic vapors of compound tincture of benzoin reminiscent of the North woods imply that some patient is suffering from a bronchial ailment and is using a steam generating inhaler.

Queens General Outgrowing Itself

ONLY A LITTLE MORE THAN a year ago the Queens General Hospital opened its doors to the public. Since that time, every building, every ward, and every facility of this great eleven-story institution has been in operation. The local newspapers give enthusiastic descriptions of its work. They tell us that before it had been open three months, this 600-bed hospital was operating at a near-full capacity. Now the institution is so full that Superintendent Dr. Marcus D. Kogel, who has been with the hospital since its opening, is forced to demand more beds and more space.

The rapid growth of the hospital may more readily be understood when one follows the records themselves. Figures show that at the end of 1936, over twenty thousand patients have been treated in the clinics, more than 1,200 babies born and 15,000 given hospitalization. It was constructed at a cost of \$3,500,000 after more than a decade of agitation by civic groups.

On its grounds is a power plant that generates electricity for the entire institution. There is a heating plant that serves all the buildings. Giant pumps raise water to a huge tank on the roof from which point it flows to all parts of the hospital.

A huge laundry in which all hospital linen is washed and ironed is one of the great assets. A large storage house keeps food supplies in the best of condition. There is a carpenter shop and a large garage which is maintained to service ambulances and other hospital machines.

All these facilities care for the hospital population which averages 1,300. Of these over 600 are patients while the remaining 700 includes interns, hospital helpers, cooks, attendants, nurses, cleaners, and others in

The hospital executive employing his olfactory sense is able to detect more mundane things than the diagnosis of disease. With equal certainty his sense of smell leads him to the hiding place of a sodden and unclean mop or to the existence of insanitation which careless cleaners had thought well hidden. Employing both their olfactory equipment and their supply of common sense both the physician and the hospital executive may at times display what appears to be unusual, though in reality perfectly commonplace, diagnostic powers.

perhaps another dozen trades and professions.

There are about 230 nurses and fifty interns at the institution. About 300 outside physicians come to the hospital daily. A library service is maintained at the hospital. On certain days of the week, a librarian from a branch of the Queensboro Public Library goes from ward to ward. The librarian has an office in the main building.

There are forty individual rooms for interns in the staff house, a three-story building. There are also two apartments, one for Dr. Kogel as superintendent and the other one for the deputy superintendent, Dr. Philip Kahn. In the nurses' home, which is four stories high, there are 132 individual rooms and two apartments for administrative officers. The employees' building which is three stories high, has seventy-five rooms and an apartment for the administrative officer.

In examining the figures for the last quarter, it may be noted that the death rate at the hospital is only 5.9 while the rate for all city hospitals was 8.2. There was not a single death of a mother in childbirth for the first six months that the hospital was open. Figures show that, on an average, thirty-five persons are admitted daily and thirty-five discharged. The average stay at the hospital is about ten days.

About fifteen major operations are performed daily. Each day, several hundred persons come to the hospital for everything from pre-natal lectures to treatment for the teeth. Common diseases, which do not require hospitalization are treated in the clinics.

Working in close cooperation with physicians handling both in-patients and out-

Hospital News

Present Status of Hospital Insurance Plans

OUT OF 172 GROUP hospitalization and hospital insurance plans recently addressed by the Bureau of Medical Economics of the American Medical Association, ninety were found active and eighty-two inactive. Of the active plans, fifty-six were found to be operating and thirty-four in the state of established proposals. Fourteen new plans have recently been proposed. Thus the present status may be defined, remarks the *AMA Journal*, as one of active experimentation in an effort to find out the workable features and thus maintain systems capable of meeting existing needs. Various investigations indicate that somewhere between 500,000 and 700,000 persons are now members of such plans. Incidentally, three plans have fifty per cent of the entire membership, and ten plans have eighty per cent of the entire membership.

In Chicago, the plan proposed through the Hospital Council involved the setting up of a hospital service corporation as a nonprofit corporation, organized under the Illinois act exempting a nonprofit service corporation from the insurance code of the state. This plan has been under active consideration by a committee of the Chicago Medical Society which proposed six requirements before it could place the approval of the Chicago Medical Society on the plan. Of these, the chief demand is that all matters of medical administration and medical policy be referred to the Chicago Medical Society whose decision in these instances shall be final and binding both on the Chicago Hospital Council and on its member hospitals.

Unfortunately, the Council of the Chicago Medical Society has not yet accepted the report of its committee, owing to the apparent insistence of one of its members that the medical society do not enter into the arrangement unless it has a guaranty of fifty-one per cent of the directorate, an insistence to which the Hospital Service Corporation may hesitate to consent.

It is interesting to realize that Chicago has already had ten group hospitalization plans besides the Hospital Service Corporation, not one of which has attained even slightly significant proportions. Two of these plans were organized under the same law that created the Hospital Service Corporation and both secured articles of incorporation notwithstanding the fact that they were promoted by hospitals considered to be unable to give first class service.

Another unfortunate aspect of the situation is the fact that the propaganda and promotion associated with the Hospital Service Corporation have brought into the field various unethical imitators, one of them advancing himself by the circularization of the public in his vicinity with a schedule labeled the Chicago Hospital Service Plan, a vague imitation of the proposition advanced by the Hospital Service Corporation. It will apparently become the obligation of those who actively promote such plans under legitimate auspices to protect the public at the same time against illegitimate promoters, through exercising the rights of any business group to the protection of their names and style in the courts.

The Doctor's Nose Knows

THE PHYSICIAN MUST EMPLOY to the fullest degree all of his special senses if he is to diagnose and treat disease successfully. It has even been hazarded that a sixth sense, usually called "common," is necessary in unraveling a complicated diagnostic problem.

The olfactory sense is not the least needed by the doctor in the pursuit of the art and the science of medicine. He is often able thereby to diagnose chronic nephritis by the

uremic odor of the patient and diabetic coma by its distinguishing sweetish acetone odor. A patient suffering with typhoid fever is said to emanate a mousy odor and he who is unfortunate enough to suffer from acute articular rheumatism has an acetic acid aroma.

Moreover, the skilled physician who passes down a hospital private floor corridor may often guess by the use of his olfactory sense

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DR. FREDERICK E. CLARK, city health officer of Ogdensburg, is starting an agitation for an isolation hospital there for contagious diseases

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ALL CONTRACT WORK on the new Bath Memorial Hospital is practically completed, and the hospital authorities expect soon to announce the opening date.

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THE JAMESTOWN GENERAL Hospital is equipping a new maternity unit at a cost of \$12,000

THE BOARD OF THE J. N. Adams Hospital at Perrysburg has passed a resolution asking for additional facilities, and plans and specifications have been completed for new buildings. PWA aid will be requested. Scores of tubercular patients have had to be put on the waiting list for lack of room

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DEPUTY HEALTH COMMISSIONER J. H. Collins, of Schenectady, is urging that an addition to the City Hospital be built to care for mental patients. In his report Dr. Collins also calls attention to the "particularly disgraceful" conditions at the Health Center on Union Street, where additional space is needed, and where renovation of the building should be made immediately "to decently render service to the tremendous demands upon it."

Newsy Notes

THE WHITE PLAINS HOSPITAL has passed its fifth consecutive year without a single maternal death. The record covers 1263 maternity cases

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NEW BABIES ARRIVE at the Beth Israel Hospital, in New York City at the rate of five a day. Fewer than 100 American cities have birth rates of this figure

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THE FIRST NURSERY school in the United States which will be attended both by children whose hearing has been impaired and by those who are entirely normal will open in St. Mary's Hospital for Children, Inc., 405 West Thirty-fourth Street, under the sponsorship of the New York League for the Hard of Hearing. Dr. Edmund Prince Fowler announced on Jan. 20. Dr. Fowler, who presided at a meeting of the Section of Otolaryngology in the Academy of Medicine, disclosed that the school would be directed by Mrs. Irene B. Young, who is secretary of the American Nursery Schools for Speech and Hearing. He said that there was a need for hundreds of similar schools to ameliorate the disabilities of handicapped children

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WORD HAS BEEN RECEIVED by authorities of the University Hospital of the Good Shepherd, Syracuse, that its tumor clinic has been added to the list of approved clinics published annually by the American College of Surgeons. In New York State only eight other tumor clinics outside the metropolitan area have received this recognition

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PRIVATE HOSPITALS which care for the indigent sick will receive \$6,472,000 as a contribution from the city this year, Dr. S. S. Goldwater, Hospital Commissioner, said on Jan. 30. The Board of Estimate, he explained, had set aside this sum, \$129,000 more than was allotted in 1936, for the use of these private institutions of which

patients, is a social service group which is composed of six workers and a director. This group serves as a liaison agency be-

tween the doctor, patient and his or her family. Workers call on the patients to find out their social and economic background.

White Plains Hospital to be Noiseless

The new White Plains Hospital, preliminary plans for which were recently announced at a dinner in Rye, will be as nearly noiseless as a hospital can be made, according to press reports.

The reason for this feature is that Leonard Schultze of Schultze & Weaver, New York architects, who drew the plans for the proposed building, was disturbed by noise when he was a patient in the present thirty-year-old structure.

Mr. Schultze, whose firm designed the new Waldorf-Astoria Hotel in New York, concentrated on the elimination of noise in preparing plans for the new \$1,200,000 building, funds for which are now being raised. The campaign will be conducted throughout the Winter and Spring, and construction will start at an early date, according to John W. Appel Jr., president of the hospital. Headquarters for the campaign are at 8 Church Street, White Plains.

The plans call for a modern central unit and west wing to replace the present main wing, and the remodeling and expansion of the present east wing. The east wing was built a few years ago and is of modern construction. Bed capacity will be increased from 120 to about 200 beds.

The noiseless feature will be accomplished in part by building all rooms on the south side and by the elimination of all automobile traffic and parking from that side of the building. At present the parking space and ambulance entrance are on the south side. These will be replaced by gardens.

Another feature will be the arrangement

of rooms for private patients along the corridors in an oblique manner so that a corner of each room comes out to the southern building line. In the triangles created by the space between the rooms will be porches, one adjoining each room. Construction will permit beds to be rolled onto the porches. Structural glass will be used extensively throughout the six-story building.

The object of the Hospital Board of Governors, as stated in literature prepared for the campaign, is to create not only adequate modern hospital facilities for White Plains and adjoining communities, but to provide a medical center as a clearing house for technical information for surgeons and practitioners.

"The present plant," said the board's statement, "is totally inadequate to meet the need of the community today. The simple fact is that the community has completely outgrown the hospital's existing facilities. To provide better as well as more care, the hospital desires to complete a program of affiliation with outstanding medical institutions in New York City."

The hospital recently became associated with Memorial Hospital for the Treatment of Cancer and Allied Diseases. In the new building "an unusual degree of privacy will be afforded to ward patients," no ward will have more than ten beds, there will be an auditorium seating 250 persons for medical and public meetings, a lecture room will adjoin the operating suite, galleries built for students and visiting physicians in the operating rooms and solarium on each floor.

Improvements

A \$3,000,000 BUILDING group for disturbed patients at the Rockland State Hospital, Orangeburg, is under construction.

THE DEPARTMENT OF HEALTH of New York City has filed plans for a seven-story building, at a cost of \$400,000, to be used for teaching health education and health administration. The building will be erected at 600 West 168th Street, and will form

part of the Columbia University-Presbyterian Hospital Medical Center adjoining

ADDITIONS AND CHANGES will be made at the nurses' home of the Homer Folks Tuberculosis Hospital at a cost of some \$20,000.

A NEW HEATING and refrigerating plant is nearing completion at Coney Island Hospital.

March 1, 1937]

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there are 105 "This sum, however, is far below the actual cost of caring for city cases in private institutions," said Dr Goldwater. Actually, the \$3 daily rate paid by the city for acute medical and surgical cases is only about one-half of the average cost of maintenance, after eliminating from the calculation the value of free services of the physicians and surgeons in attendance

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THE FELLOWSHIP COMMITTEE of the Hospital for Joint Diseases announces the award of the Mr and Mrs Frederick Brown Orthopedic Research Fellowship to Aaron M Gold, M D, for the year 1937. The Fellowship carries with it an honorarium of \$1,200 a year and complete maintenance at the Hospital. Each year a candidate is selected on the basis of education and experience in research as well as ability on the part of the candidate to do original investigational work. In January 1936, Dr Gold was awarded the same fellowship, the present award being a re-appointment. He will continue his research work in orthopedic surgery at the above hospital for 1937

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THE NEW YORK HOSPITAL has added a clinic for instruction of physicians, interns and students, in the treatment of syphilis and epidemiological methods of study of the disease. The Milbank Memorial Fund aided in financing the clinic, ultimately intended to be part of the district training and health center of the New York City Department of Health. The Cornell Medical School has assigned part of its property on which the center will be built

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SYDENHAM HOSPITAL ANNOUNCES that, due to rearrangement of the interne schedule, it will have two vacancies for July 1, 1937: one, a six months' houseship in pediatrics and ear, nose and throat, the other, a twelve months' appointment consisting of six months of rotating seniorships and six months' house on pediatrics and ear, nose and throat.

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THE VALUE OF HOSPITAL LIBRARIES to patients has been proved, but few hospital superintendents have been able to establish such a service due to the cost involved

However, when a public library is maintained in the community its facilities should be available to hospital patients. In one city, the public library maintains a sub-station in the hospital and sends a librarian to the hospital three times a week to issue books to the patients. If the patient leaves between visits, the nurse on the floor is responsible for returning the book to the sub-station. This plan has proved workable at little expense and trouble to the public library and with the loss of only nine books in over two years—*Lewis E Jarrett, M.D., Hospital Division, Medical College of Virginia, Richmond, Va., in The Modern Hospital*

. . .

IF, AS YOU WALK INTO the Western Pennsylvania Hospital in Pittsburgh, a young woman in a smock approaches you with a "May I help you in any way at all" expression on her face, you can safely relax and know your worries are over. You have been temporarily adopted by a member of the Junior Committee, says *The Modern Hospital*. Many years ago the first group of junior volunteers was organized. These girls were stationed in a receiving line as hostesses. Their willingness invited more responsibility. Student nurses gradually surrendered minor duties to the volunteers, who now do a considerable variety of hospital work. The Junior Committee operates somewhat as a club. Its membership is limited to seventy-five and new volunteers come in by nomination. Their working hours are in the morning, the hospital's busiest time, and they appear with salary earning regularity. Their duties are legion. They carry messages, they read letters and books to the sick, they talk to lonesome patients, they write letters, they help to guide and roll occupied beds from different parts of the hospital, they roll bandages, they remind clinic patients of their appointments, they do filing, and, on the operating room floor, they are the connecting link between the surgeons and the rest of the world

. . .

ALTHOUGH THE OPERATING loss of the Peekskill Hospital in December was \$646 96, income from investments and subscriptions brought in sufficient to enable the institution to show a profit of \$334 34

A HOSPITAL INSURANCE PLAN for employed persons went into operation in Jamestown on Feb 1. The rate is 65¢ a month, or \$7.80 a year, and includes twenty-one days hospital care in semi-private accommodations, operating room service, laboratory service, customary drugs and dressings, anesthesia, and x-rays

. . .

BONE OR JOINT TUBERCULOSIS in children, which formerly comprised the bulk of cases at the Children's Hospital Home, in Utica, is decreasing markedly there. Report to this effect was made at the annual meeting of the Board of Managers by Dr C H Baldwin, chief of staff, who declared that relatively few new cases of this kind are now appearing. However, non-tubercular affections of the bone are increasing, either due to coincidence or to lowered vitality brought on by poor and less food during

the financial depression. The physician also found that the number of cases resulting from rickets are much less common and in this connection spoke of the preventive work of baby welfare organizations. As to infantile paralysis, the report notes that there have been few save sporadic cases during the past two years

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ROME HOSPITAL has increased its rates for all patients, including relief clients. For the latter the ward rate has risen 75 cents to \$3.50 a day. In addition, each patient will be charged a \$2 laboratory fee. Heretofore this charge was not assessed in relief cases. The hospital action is based on recommendation of Frederick Hart, auditor for the state controller's office, that its rates be adjusted so that revenues will balance expenditures. The increase will mean a rise of approximately twenty-seven per cent.

People

JUSTICE L J EKENBERG has been re-elected president of the advisory board of St Joseph Hospital at Lawrence.

. . .

JOHN W APPEL, JR has been elected president of the White Plains Hospital, and Howard Willets honorary president.

. . .

A P WITHALL heads the board of directors for the new year at the Physicians Hospital at Plattsburgh.

. . .

THE NEW CHAIRMAN of the board of Faxon Hospital at Utica is Alexander Pirnie, and the chairman of the council is Mrs B E Tilton.

. . .

DR. WATSON A. LAWRENCE has just been reelected by the medical board of St. Agnes Hospital at White Plains as its president and chief of staff.

. . .

THE BOARD OF SUPERVISORS of Genesee Hospital at Rochester has chosen Mrs E

Clinton Wolcott president, and Mrs Hiram W Sibley honorary president.

. . .

MASON B COGER was reelected president of Corning Hospital for the sixth consecutive time at the organization meeting of the 1937 board of directors.

. . .

FRANK H HUMPHREY was again made president of Bethesda Hospital in North Cornell at the annual board meeting.

. . .

THE SYRACUSE GENERAL Hospital Guild has chosen Mrs George Ten Eyck as president.

. . .

RESIGNATION OF DR ARTHUR W ELTING, nationally known surgeon and leader in advancement of standards in the medical profession, as chairman of staff at Albany Hospital, was announced on Jan 19. Dr Elting, first chief of the staff on its formal organization in 1926, has served continuously in this post. He informed the staff he would not serve again because of the long period of his service in this position. His resignation was accepted at the Janu-

ary staff meeting Dr William P Howard, roentgenologist, and vice-chairman of the staff, was elected to the post Dr Howard is also clinical professor of roentgenology at Albany Medical College Dr Elting remains as chief of the surgical department of the hospital, and as professor of surgery at Albany Medical College

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WALTER B NIVEN was elected president of the Board of Trustees of the Geneva General Hospital at the annual meeting of the board

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DR FERDINAND DEFOREST STREETER, fifty-five, clinical director of the Rochester State Hospital, died in Strong Memorial Hospital, Jan 20

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GEORGE BENNETT HAS BEEN reelected for his nineteenth term as president of the Rockaway Beach Hospital Dr Herbert L Langer has been chosen president of the medical board

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MRS EDWIN RUHL succeeds Mrs James D Blakeslee as president of the board of women managers of the Memorial Hospital of Buffalo

. . .

G LOUIS COOK has again been named as president of the Memorial Hospital of Ithaca

. . .

THE MEDICAL BOARD of the Waterloo Memorial Hospital has reelected Dr Carroll B Bacon as president

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AT A JOINT ANNUAL MEETING of the staffs of St Mary's Hospital, of Amsterdam, and the Amsterdam City Hospital, Dr Edward A Bogdan was chosen president of St Mary's staff and Dr Harry S Howard president of the City Hospital staff

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DR. CHARLES EVELYN RYND of Brooklyn,

director for the last ten years of the gynecological and obstetrical division of Kings County Hospital, died on Jan 12 in the Midwood Hospital He was fifty-three. He was connected with the Kings County Hospital since 1912, when he served his internship there, rising to assistant and attending physician in obstetrics and gynecology and finally becoming director of the division. He was also an attending gynecologist at Midwood Hospital and had been secretary of the Midwood Sanitarium, clinical Professor of Obstetrics and Gynecology at Long Island College Hospital and consulting obstetrician at Harbor Hospital During the World War Dr Rynd served as a captain in the Medical Corps unit of Kings County Hospital in England and France.

. . .

DR ETHEL B COSBY ADLER, who died at Woodmere, L I on Jan 12, aged seventy-one, was the first woman to serve as an intern at St. Joseph's Hospital, in Far Rockaway, Queens, and at the time of her death she was a member of the medical staff of that hospital She also was a member of the medical staffs of the Meadowbrook Hospital, in Hempstead, L I, and the South Nassau Community Hospital, in Rockville Centre, L I

. . .

ST LUKE'S HOME AND Hospital in Utica has reelected Arthur N Gleason of Utica and Clinton as its president

. . .

MISS GERTRUDE S NORTON was elected president of the women's board of Samaritan Hospital, Troy, in January

. . .

HARRY WEINBERG has been elected president of Beth El Hospital in Brooklyn for his third consecutive term

ARGUMENT FOR HEALTH INSURANCE

Foreman (to small son of workman who has met with an accident)—When will your dad be fit for work again?

Boy—Can't say for certain, but it won't

be for a long time

Foreman—What makes you think that?

Boy—'Cause compensation's set in—
Montreal Star

Medicolegal

LORENZ J. BROSNAN, Esq.

Counsel, Medical Society of the State of New York

Emergency Treatment of Nose Bleed

A doctor engaged in general practice happened to be in a drugstore when a boy came in the store asking the druggist for a doctor, stating that his sister was bleeding badly.

The doctor immediately went with the boy to his home and found a young woman lying in bed holding a bloody towel to her nose. At her side was a basin partially filled with blood. The patient was in a semi-comatose state, her pulse was rapid, and she was bleeding profusely from her mouth and right nostril. From the amount of the blood present the doctor concluded that she had been bleeding for some time. He noticed a bottle of adrenalin on the table beside the bed with which her family had tried to stop the bleeding. He realized that the case was an emergency one and attempted to stop the flow of blood by using the adrenalin but was unable to do so. He thereupon directed the boy to go to the drugstore for a solution of ferric chloride.

The doctor tried to determine the site of the bleeding but the flow of blood was so profuse that he could not find it, although he concluded that it came from the right nostril. When the ferric chloride solution was brought to him he stopped the bleeding by using the said substance, packing the nostril with cotton with a few drops of ferric chloride applied thereto. The bleeding subsided and the patient became comfortable, so the doctor left the patient instructing her to remove the packing slowly in about an hour if she felt no more

bleeding. He further left instructions that she should communicate with him if there were any untoward developments. The doctor never saw the patient again professionally.

Subsequently a malpractice action was instituted against the doctor charging that he had been guilty of malpractice in administering a caustic to the patient with the result that the said substance had burned the plaintiff's nostril so as to cause a permanent disfigurement.

The case came on for trial as a non-jury case. The plaintiff testified that when she called the defendant she was suffering from a mild nose bleed which the defendant treated with a caustic substance which caused disfigurement of one of her nostrils.

The defendant's testimony was that when he treated the patient he was confronted with a definite emergency and that it was necessary for him to employ a strong caustic in order to prevent the patient from bleeding to death. The defendant also testified that from the subsequent history of the case it was apparent that the patient had failed to follow his instructions in keeping the cotton in the nostril too long.

The court handed down a verdict in favor of the defendant and expressly ruled that in the opinion of the court the defendant had found the plaintiff in a critical condition and had been obliged to use emergency methods to meet the situation, thereby giving full credence to the defendant's version of the case and exonerating him from the charge of malpractice.

ACT PROMPTLY

Physicians can avoid financial inconvenience and unpleasant friction by prompter compliance with the clerical requirements of the amended Workmen's Compensation Act. Annoying as the routine of form filing is, it is an inescapable feature of large scale enterprise. The practitioner engaged in compensation practice cannot evade it. Punctual attention to the rules reduces it to a minimum, says the *New York Medical Week*.

As soon as treatment is completed in a compensation case, the physician should report it closed and send in his bill. When this step is delayed, so is payment, and settlement of the worker's claim must also be postponed. This is an injustice to all concerned. The doctor resents it when the carrier holds up his check. There is equal cause for recrimination on the part of carrier and claimant when the practitioner fails to carry out his part of the bargain.

Across the Desk

"Rich Man's" and "Poor Man's" Medicine

THE DISPATCHES FROM Washington say that some of the leaders of labor who were formerly against socialized medicine have been won over, and now favor it. If so, it must be that they have not thought the thing through, and do not realize where it would land the labor union members and their wives and children.

For the socialization of medicine would split medical practice and treatment at once into two distinct classes—panel* practice and private practice. The panel practice would be "poor man's" medicine, the private practice would be "rich man's" medicine. The evils certain to taint panel practice in our peculiar political system have been told a hundred times, it is into that medical morass that these labor officials now lightly propose to lead the workers and their families.

At present the American laboring classes enjoy the same medical care as everyone else. The banker may perhaps have a large corner room on the quiet side of the hospital, with flowers on the table and special nurses to smooth his pillow, but in the operating room Jack is as good as his master, and every one gets the same attention, the same care, the same skill. When the banker has a pain, he goes to Dr. A or Dr. B. When Jack has a pain, he goes to Dr. B or Dr. A. The only difference is that the banker gets a bigger bill.

A Quick Decision Imperative

It is strange that the labor leaders should be so blind to the marvelous medical position that the workers now enjoy. The worker is today on a equality with the millionaire in medical treatment, but evidently that won't do. A special form of class medicine a "poor man's" kind of medicine, is to be created for the worker. The unenviable life of the panel doctor has been vividly painted by the officers of our state and county societies in public addresses. It will be to these harrassed and overworked

physicians that the workers will be sent. An American doctor visiting England a year or two ago was told of the fine efficiency of a panel practitioner over there who could railroad thirty patients through his office in sixty minutes. That is a sample of "poor man's" medical treatment. Do our workers want it? If not, now is the time to decide, before it is too late.

A root error at the bottom of the wrong thinking about socialized medicine is the assumption that any one doctor is just as good as any other doctor. At present the worker can pick his own physician, under socialized medicine he can choose only among the panel doctors. Are the panel doctors likely to be better or poorer than the ones in private practice? It would be invidious to cast the slightest reflection on any medical man who may be thinking of going in for state medicine, but would it be human for a man who could make a good living in private practice to accept instead a poor living on the panel? Would or would not state medicine be likely to sort out the physicians into two lots, the "rich man's" doctors and the "poor man's" doctors?

This splitting effect of state medicine has not been stressed very fully before. It is of the first importance to the classes who will be relegated into the "poor man's" medical category, and they should be awakened to its possibilities.

The uninformed and unenlightened masses of the population, who pour noxious patent medicines down their throats like the Ohio and Mississippi floods, have little idea of the complexities of their own inner workings and disorders. Millions of our people think that when you have a cough you just take cough-drops, when you have a headache you take headache-powders, and when you have the bellyache you take a pill. It seems the apex of logic and sense to them that medical treatment should be put on a mass basis, like the production of Ford cars, "modernized," brought "up to date." What they may find is that they have put themselves out on the end of a limb, and sawed off the limb.

*From the legal term, panel, a list

ACROSS THE DESK

Number 51

A Sinister Possibility

A still darker possibility is suggested to the mind as one reads articles appearing in the magazines about the workings of the old-age security act. The old age security plan and any plan of state medicine are similar in that millions will be listed, with certain vital facts about their names, ages, marriages, etc., etc. Now it turns out that many, many people do not wish these facts made public. Life is often a tangled skein, and lots of perfectly good folks are hiding little slips that would raise hob if dragged out before the public eye and bandied about by the merciless tongue of gossip.

True, the returns under the old-age security act are "confidential." That is, they are "confided" to hundreds of thousands of petty clerks who may be ninety-nine per cent high-minded and strictly honorable. But what about the other one per cent? How about the blacklegs and scalawags who may worm themselves into positions of access to information useful for blackmail?

If this danger is present in the old-age security listings, how much more will it obtain in a medical category. How many are going to like it to have their intimate ailments written in card catalogues at city, town, and county headquarters, for boy and girl clerks to pore over? Every physician is the repository of confidential information which he holds sacred. That is one of the fine features of our present medical system. But that is old fashioned. Our illnesses must be socialized, regimented. The illnesses of Mrs. Smith must be set down on her card, where the daughter of Mrs. Jones will see it "confidentially" and "confide" it to her home folks and a few of the neighbors.

A brisk business is said to be carried on in the sale of lists of persons with incurable ailments who make good "prospects" for the sale of vile nostrums which are paraded as cures. What a source of information these card catalogues would be for clerks with an eye to making a few dollars on the side. If state medicine comes, the nostrum makers may well look forward to enlarging their plants and arrange for more copious supplies of colored water.

An Opportunity for Evil Minds

An article in the *Saturday Evening Post* by the assistant managing editor of a metro-

politan daily newspaper throws significant light on this subject. Mr. G. R. Alexander was placed in charge of a question-and-answer column of his paper on the social security act. He was amazed at the confessions of some of the readers who found themselves in a quandary of one sort or another. "Some," he writes, "go so far as to put down in black and white facts which could cause them to lose their jobs, break up their homes, be ostracized by their friends, and even to be deported or sent to prison. Ninety per cent of them sign not only their correct names, but their addresses as well."

All sorts of people, too, it appears, have these shady spots in their past which they fear will be dragged out into the light by this so-called "security" plan. There are manufacturers and mechanics, brokerage statisticians and penny-candy salesmen. Their secrets range from illegitimate births, secret marriages, falsified ages and criminal pasts on down the line to business strategy, wife desertion, bigamy, illegal entry into the country, falsification of income-tax returns, and outright felonies.

The thought that rises at once is the opportunity these human catalogues will offer to the evil-minded, and the catalogues of ailments under a socialized medical plan would offer another. Have the leaders of labor considered the unfortunate and even tragic features of the plan to which they have been so easily converted?

No "Security" for Medical and Health Workers

Doctors are not eligible for the benefits of the old-age security act, as they are supposed to be in business for themselves, and must provide for their own protection from the storms of life's winter. Nurses, too, are likewise out in the cold. A nurse wrote to Mr. Alexander:

Will you be good enough to advise whether graduate or practical nurses on private duty are eligible for monthly pension?

How can a nurse have a registration card when the work is so unstable, and when she changes her employers so frequently? I have had three patients in less than a month—two died and one was taken to the hospital.

To this he replies:

Who will look after the nurse when she is sixty-five? She is unprotected, not for the

grim reasons she fears, but because she sets her own fees and is her own boss and therefore, is considered an independent contractor under the law

It is not so easy to see why hospital workers are excluded Mr Alexander quotes this inquiry

How will the Social Security Act work out for the thousands of men who are employed as ambulance drivers, engineers, firemen, orderlies, and so on, in hospitals and institutions?

We have men working in this hospital from twenty-five to thirty years What is to become of them? If they leave here now, they are too old to get a job in industry I, myself, have been driving an ambulance here for eight years and am fifty

The reply is that Congress made some strange exclusions when it framed this law Hospital workers are not the only ones forgotten

Congress excluded employees of non-

profit institutions operated for religious, charitable, educational, literary and scientific purposes, officers and crews of vessels documented under the laws of the United States or of any foreign country, employees of national, state and local governments, domestic and agricultural help, soldiers and sailors and railroad men—who have a pension, plan in the Railroad Retirement Act.

Here, then, are the doctors, the nurses, and the hospital workers of all kinds left outside of the benefits of old-age security—the very ones who are helping people to live to old-age! Perhaps they are expected to wear themselves out in the task, and drop off in middle life! The anomalous situation suggests the idea, if practical, of forming an association of all medical and health workers to provide an old-age security of their own, more generous and worthwhile than the scanty and, in some cases, begrudging allowances in the governmental schedules

To Bring Pharmacy Back to the Pharmacy

THE BACK-TO-THE-FARM movement has been going on for some time, now we are to have a back-to-pharmacy movement It is something like "China for the Chinese" or "America for the Americans," only it is to be "Drugs for the Druggist," according to an announcement recently made by Harold Hutchins, managing editor of *American Druggist*, sponsor of the movement For many years the pharmacy has been the place to go for ice-cream sodas, beauty preparations, cigarettes, books, and a thousand other things, with the prescription department tucked off in a rear corner, hiding its head as if ashamed to be there

But now Cinderella's day has come The prescription counter is to have its own again Pharmacists have waked up to the fact that it is really the heart and soul of their business and their profession, and a nationwide appeal is going out to the doctors to "Write more prescriptions!" Pharmacists declare that many doctors merely say in an offhand manner to the patient "Get an eight-ounce bottle of this or that, take a teaspoonful in water after meals, and if you are no better in a week give me a ring" That sort of thing, they add, starts a large amount of self-medication and exchange of lay medical advice all around town that is harmful to the doctors and

patients both So, "Write your prescriptions!" and not only the doctor's purse and the patient's pulse will show improvement, but the little old prescription counter will become a big new prescription counter and will count more prescriptions and more dollars—millions more

For the men behind the new move reckon that some \$65,000,000 of new prescription business will be added to the present \$140,000,000 if the doctors will put their prescriptions on paper after the magic R, and \$35,000,000 more will follow in other medical and sick-room supplies

The appeal is going out over the radio, and in direct mail to doctors and druggists, and in a big advertising campaign It need only be added that medical journals all over the country have been warning the medical men for years against loose and careless prescription practices that lead the patient to believe he can diagnose and prescribe for his own ailments If druggists and doctors can get together and put the prescription business on a sound basis, certainly everybody will benefit by it.

One interesting development is that pharmacists are now even trying to make their shops smell like the old-time drug-store, and drug-trade journals tell what to sprinkle around to give the odor of years ago

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

Favourite Prescriptions Edited by Sir Humphry Rolleston, M.D. & Alan A. Moncrieff, M.D. Octavo of 227 pages. London, Evre & Spottiswoode, 1936. Cloth, 10/6.

This is a series of eighteen articles on hospital pharmacopoeias originally published in *The Practitioner*. The favorite prescriptions of St. Bartholomew's, London, Guy's and the other main hospitals of Great Britain are given. Each article is written by a physician of that particular hospital.

There is considerable of historic interest in the book, as some of the formularies date back to the middle of the 18th century and some of the prescriptions are linked with the names of famous physicians. Guy's pill of mercury, squill, digitalis leaf and hyoscyamus, a mid-Victorian formula, must be regarded, according to Mutch, as the forerunner of the powerful mercurial diuretics of recent years. Mercurial diuresis is said to have been recorded in the 18th century but the knowledge soon lost and rediscovered in 1886.

The article from St. Mary's Hospital by C. M. Wilson is one of the best. He casts doubt on the efficacy of some of the old-fashioned remedies and notes the more frequent use of the active principle uncombined. In 1788 it was the custom to retain some prescriptions, "innocent in themselves, out of tenderness to the feelings of some contemporaries."

An account is also given of the National Formulary for National Health Insurance purposes.

W. E. McCOLLUM

The Operations of Surgery By R. P. Rowlands, F.R.C.S. & Philip Turner, F.R.C.S. Eighth edition, volume 1. Quarto of 1045 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$10.00.

The first volume of this 8th edition, which is a direct descendant of the "Operations of Surgery" by the late W. H. A. Jacobson, is an attractive textbook. It describes operations of the upper and lower extremity, head and neck, chest and vertebral column. The language is lucid and forceful, the illustrations adequate for anyone who has some knowledge of surgical

principles. The anatomical descriptions are pertinent and no obsolete methods of procedure are included. This is a welcome feature of the work. It is not meant to displace more specialized volumes on regional surgery and therefore is not as complete as a specialist would like to see it. The sterling qualities of the book will undoubtedly cause it to supplant many textbooks on this subject now cluttering the shelves of surgeons.

GEORGE WEBB

Research in Dementia Precox (Past Attainments, Present Trends and Future Possibilities) By Nolan D. C. Lewis, M.D. Octavo of 320 pages. New York, The National Committee for Mental Hygiene, 1936. Cloth, \$1.50.

This book is an ambitious attempt to comprehend all that is known (and unknown) about dementia precox. It is not intended for the general practitioner who would soon find himself lost in a vain effort to follow the bewildering array of facts and theories about this complicated disease. Dementia precox presents many difficult problems. We know nothing about its etiology, the factor or factors which singly or in combination bring about this disease.

Neither psychoanalysis nor any other forms of therapy have favorably affected it. The excursions into psychology, psychobiology, the study of the "man as a whole," have somehow missed the path that will elucidate the etiology of this disorder, and without etiology we are groping in the dark. The investigations of innumerable workers in this field of medicine have resulted in much theorizing. They often explain the symptoms but do not explain the disease. When a person reflects that dementia precox has been studied from the ethnographic, biologic, biochemical, psychologic and psychoanalytic viewpoints, he is filled with awe before a disease which has thus far resisted penetration. The most recent and noteworthy achievement has been in the employment of insulin in the treatment of dementia precox. The accounts so far have been most encouraging. Perhaps we are on the threshold of a new discovery.

ORDERING BOOKS

As a service exclusive to our readers books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St., N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

which would put the whole problem on a biochemical basis

Dr Lewis discusses these various topics in an interesting and up-to-date manner

JOSEPH SMITH

Surgical Diseases and Injuries of the Genito-Urinary Organs By Sir John Thomson-Walker, F.R.C.S. Second edition, revised. Edited by Kenneth Walker, F.R.C.S. Quarto of 974 pages, illustrated. Baltimore, William Wood and Company, 1936 Cloth, \$10.00

This is the second edition of a work which was brought out originally in 1914 and which has been a standard textbook in England ever since. The present work represents a thorough revision and where it is required by the rapid advance made in urology during the last twenty years, new chapters have been added

The book is written in classical textbook style, sections are devoted to each organ in turn, kidney, ureter, bladder, etc. and in each section there are separate chapters taking up in regular sequence, anatomy and physiology, abnormalities, injuries, infections, etc

The whole field of urology is covered, and in order to do this it has been necessary to present the subject matter rather briefly. It is, however, presented very clearly. In many instances, where there are various methods of handling certain problems, the author merely mentions other methods and briefly but clearly describes his own choice, including operative procedures

The bibliography is good and the work is well-illustrated

It should provide a most excellent textbook for students, the general practitioner who wishes to familiarize himself with

modern urology will find it easy reading and, of course, every urologist will want to add it to his library

N P RATHBUN

Administration of Workmen's Compensation. By Walter F Dodd. Octavo of 845 pages. New York, The Commonwealth Fund, 1936. Cloth, \$4.50

This detailed study of the major problems in administering Workmen's Compensation is most timely, as well as most valuable, to all who have anything to do in deciding the many technical questions arising in this social problem now twenty-five years old. The work was started by Mr Dodd when a professor in the Yale Law School and was limited at first to a discussion of the law as enacted in Massachusetts, New York and Pennsylvania. Soon it had to include California, Illinois and Ohio. Other States enacted laws and it all became a most confused problem. This study compares the experience in every section and points out the good and weak points of each state. Chapters eleven and thirteen seem to give the information that is most valuable for those who are not interested in all the legal details, but have close relation to the problem. To those who are connected with Compensation Bureaus, Industrial Bureaus, Insurance Carriers, Self Insurers and more particularly those of the Medical Profession who represent the physicians in their relation to the foregoing bureaus, etc., will do well to secure this valuable book for their personal information and guidance. The book contains end results of many investigators, lawyers and commissions

EUGENE W SKELTON

TO MAKE SYPHILIS TRANSMISSION A CRIME

In France and her colonies there are supposed to be about 1,200 licensed brothels. Of late there has been alarm in these establishments, says *The British Medical Journal*, because of an apparently well-founded rumor that the new and enterprising Minister of Health, M. Henri Sellier, proposes soon to introduce summary legislation with regard to them. Intelligent anticipations of his reforms, which may come over-night, suggest that he may make the transmission of venereal disease a criminal offence. Compulsory treatment of venereal disease free of charge is also expected to be a feature of his legislation. There is a prospect,

too, of organized warfare on the innumerable camp-followers of prostitution, from the whispering shadow who appears suddenly from nowhere and offers obscene pictures for sale, to the proprietor of hotels letting out bedrooms for about an hour at a time. The capital invested in the brothel traffic must surely approach astronomical figures, and M. Sellier's prospective attack on this vested interest will earn him the vituperative animosity of thousands of electors. A recent defence of the licensed brothel in the French medical press made strange reading

CESAREAN SECTIONJAMES KNIGHT QUIGLEY, M D, F A C S, *Rochester**Chairman, Sub-Committee on Maternal Welfare of the Committee on Public Health and Medical Education of the Medical Society of the State of New York*

Cesarean section with its recent modifications is an invaluable procedure of the obstetrics of today. However, its popularity due in part to its simplicity of performance has laid it open to criticism and many recent studies on maternal mortality have emphasized the fact that resort is had to this operation far too often. Indications for its use have become too broad, and the mortality in general is greater than it should be. Cesarean section too often is considered an obstetric panacea—a key to unlock all difficulties pertaining not only to delivery but to pregnancy as well. As an example of this might be mentioned uterine inertia, eclampsia, rigid cervix, etc. This blind confidence in a single measure unfortunately pervades the laity as well and the first question asked after an obstetric accident to either mother or baby is apt to be, "was a cesarean section done?" the implication being that had the woman been delivered by the abdominal section, the outcome would have been favorable. Twenty years ago Rudolph Holmes¹ said "Many a cesarean section has been done for indications which have been exceedingly specious, indications which are far-fetched. Many of these operations are exemplifications either of the lack of judgment in placing indications or of ignorance of true obstetric facts."

J Whitridge Williams² in 1917 said

Generally speaking, I consider the opera-

tion is being abused in two ways, first, that it is frequently employed unnecessarily, and secondly, that even when strictly indicated, it is not always performed at the time of election, with the result that its mortality becomes needlessly high. The prime factor in bringing about this abuse is defective medical training, with consequent ignorance of the wonderful adaptability of nature, and of the resources of obstetric art."

If these indictments were true twenty years ago they might be pressed with equal insistence today, for the incidence of cesarean section has increased in general, and in some hospitals from one hundred to three hundred per cent in the last quarter century. There is however a brighter side to the picture, for while the incidence has increased, the mortality, as I shall show later, has decreased.

That we may visualize the present status of this operation and something of its development the history of cesarean section is divided into five eras.

About the first era little is known except that the operation was done on the dying or dead woman. The *Lex Regia*, pronounced by Numa Pompilius who lived 760-715 B C., required the delivery from dead or dying women. According to Jewish writings, it was probably performed on the living woman before the Christian era.

The second period begins with the sixteenth century. At this time the operator took no sutures but depended upon muscular action to close the uterus and thus to prevent hemorrhage, and, as one would expect, the

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mortality was frightful, Kayser found a death rate of sixty-two per cent for eighty years. Harris of Philadelphia in 1871, in a statistical study of cesarean section, collected fifty-nine cases with a mortality of forty-eight per cent. Of thirty-eight women operated upon in Great Britain between 1739 and 1845 only four recovered.

The third era started in 1876 when Porro of Milan advocated the operation which today bears his name—by which operation, the uterus is removed after having been opened, the child delivered, and in Porro's original technic the uterine stump anchored in the abdominal wound. The mortality fell considerably due partly to Porro's technic and partly to the work of Lister and Pasteur in the cause of infection and antiseptics.

The fourth era dates from 1882 when Sanger introduced sutures in the uterine incision. Up to this time this procedure marked the greatest advance in the technic of the cesarean operation.

The fifth or last era marks the advent of the extra peritoneal section ushered in by Frank of Cologne in 1907. Also included in this, the present period, is the modification of Frank's operation by Latzko and Sellheim and more important still that of Kronig, the low cervical flap operation now called laparotrachelotomy.

Let us go back to the beginning of the nineteenth century when Denman³ in his "Midwifery" said, "No other principle than that of necessity can certainly be admitted as a justification for this operation, that is, whenever it is proposed there shall be no other way or method by which the life either of the mother or child can possibly be preserved and the impossibility shall be confirmed not by the opinion of one but as many competent judges as can be procured. Every woman for whom the cesarean operation can be proposed to be performed will probably die and should any one survive, her recovery might rather be considered as an escape than as a recovery to be expected though there is always a probable chance of saving the child."

Only about forty years later (1849) our own Meigs⁴ in describing a badly deformed pelvis wrote

In such a pelvis as this the pregnant woman ought to be advised to submit to an early abortion whereby she would be preserved from an ultimate direful necessity to undergo a frightful cesarean operation.

I hold that no man has a right

to subject a living breathing human creature to so great a hazard as that attending the cesarean section from views relating to any other interests than those of his patient's, I believe that cesarean operation ought not to be performed in any case whether the child be living or dead in which under the dictates of a ripe and sound judgment and perfect knowledge of the principles of midwifery, a decision may be obtained that a delivery per vias naturalis is less dangerous to the mother than that by vivisection.

From France, Gueniot reported twenty-six years later that in the history of cesarean section in Paris he found only six authentic successes in the eighteenth century and that in sixty-nine years of the nineteenth century in forty operations, no patient survived.

In 1876 Playfair's "Obstetrics"⁵ was published. From this I quote the following, "In this country (England) it has scarcely ever been performed in a manner which offers even the faintest hope of success, it has been looked upon as almost necessarily fatal to the mother and it has therefore been delayed until the patient has arrived at the utmost stage of exhaustion, two or three, even six days after labor had begun and when the patient was almost moribund." Again, speaking of operating under improved conditions (of the times), "As carefully as one did an ovariectomy, making every allowance for these facts it must be admitted that the cesarean section is necessarily almost a forlorn hope and in making these observations I have no intention of contesting the well-established rule of British practice that it is not admissible as an operation of election and must only be resorted to when delivery per vias naturalis is clearly impossible." Of seventy-seven operations in England sixty-six, or eighty-five per cent, were fatal, "The cesarean section is required when there is such defective disproportion between the child and the maternal passages that even a mutilated foetus cannot be extracted."

As recently as twenty-five years ago, it was considered the duty of the operator to sterilize the patient at the time of the first cesarean section in order to obviate the necessity for a repetition of the operation and no physician at that time would have been much criticized for the performance of an early abortion in a woman with

marked pelvic contraction in order to avoid a delivery by the abdominal route

I have reviewed these early ideas of the operation in order that we may realize what a boon this procedure has become to many women who in the past would have been destined to live out a childless existence, or, if subjected to cesarean section in those earlier years would have perished in an appallingly large percentage. It is also unfortunately true that along with the blessings of cesarean section has gone its abuse and that while many lives have been saved, many have been lost through injudicious operating. For these reasons I think it is well to discuss the subject from the standpoint of indications, contra-indications, technic, and results

Indications

Specifically the indications might be catalogued as follows:

- 1 Obstructive.
 - A. Absolute pelvic contraction
 - B. Relative contraction or disproportion
 - I. After trial labor
 - II. With other complicating factors
 - a. Elderly primiparity
 - b. General debilitating diseases
 - c. Malpresentation
 - C. Fibroids and other growths obstructing the pelvis
 - D. Anomalous obstruction—vaginal stenosis, diaphragms
- 2 Hemorrhagic states
 - A. Placenta previa
 - B. Ablatio placentae
- 3 General debilitating diseases
 - A. Decompensated heart disease
 - B. Pulmonary tuberculosis
 - C. Toxemia of pregnancy
- 4 Previous cesarean section
- 5 Extensive plastic repair of pelvic structures—cervix, perineum or fistulae
- 6 Elderly primiparity

Inasmuch as many of the conditions outlined above are only relative indications, they should be more clearly defined

Pelvic contraction Space does not permit of a discussion of the various forms of pelvic contraction and deformity, but, briefly a true conjugate of 7.5 cm. and under should call for elective cesarean section unless the

baby is unusually small (and if so is usually premature). A funnel pelvis the sum of whose bischial and posterior sagittal diameters falls below fifteen cm is also an absolute indication for elective section, but it should be remembered that trial labor is of no value in outlet pelvic contraction

The operation should also be done by election in other causes of obstruction such as fibroids and ovarian growths low in the pelvis. Relative contraction (a true conjugate above 7.5 cm.) either alone or complicated by other conditions, as elderly primiparity, malpresentation or general diseases like cardiac decompensation calls for the exercise of mature judgment gained only from experience. Generally it might be said that cesarean section should be done if indicated and if it be felt that it offers as safe a method for the mother as a pelvic delivery. This question cannot be settled on a mathematical basis like absolute pelvic obstruction, but, as I have said, the decision requires good judgment—and that is not infallible

Trial labor, properly conducted, in cases of moderate pelvic contraction today not only admits of greater thoroughness but happily in many cases proves that a pelvic delivery is possible. Just what constitutes a test of labor to prove this point cannot be easily defined, but in general it implies more of labor than we formerly characterized as a test. This is because of the use of the low cervical section or laparotrachelotomy, for we can more safely deliver by this method after full dilatation and rupture of the membranes than by the classical technic, provided no vaginal examinations have been made and the membranes have not been ruptured too long. The length of the labor is not an adequate test, but full dilatation in the presence of good uterine contractions with other signs of progress—or lack of signs, as engagement and descent of the fetal head—clears the picture. In the conduct of a test of labor in any borderline case where there is the possibility of a resort to cesarean section, no vaginal examinations should be made and a minimum of rectal explorations, for I believe many rectal examinations are not free from the danger of infection. The surroundings of the patient provide another factor to be considered. Many small hospitals have maternity departments which are not isolated from nonobstetrical patients such as septic surgical and medical cases. Because of the fact that the newer technic (laparotrachelotomy) is safer to perform on the patient in labor, a false sense of security has resulted in its use in badly handled cases

where the Porro or radical cesarean section should have been done—or even embryotomy

Fibroids The majority of labors complicated by fibroids will permit delivery through the pelvis, those arising from the lower uterine segment and cervix should demand elective cesarean section. I recall two cases of multiple small fibroids which while not obstructive, nevertheless so interfered with the contraction and retraction of the uterus that labor would not progress and abdominal delivery was necessary

Hemorrhagic States

Placenta previa and premature separation of the placenta do not in every case indicate cesarean section. Most cases of marginal placenta previa and mild separation can be quite well delivered through the pelvis. All cases of central placenta previa and those of the marginal variety in primiparae with undilated cervixes should have abdominal delivery. The so-called tragic case of ablatio or separation with tender uterus and signs of hemorrhage internal or external should have cesarean section not only to effect prompt and rapid delivery and control of the hemorrhage, but also that hysterectomy may be done in the occasional case of severe infiltration of blood into the uterine muscle or broad ligament. This is the one condition where the operation is almost always done solely in the interest of the mother and is admissible in the presence of known death of the fetus. Transfusion is not only desirable but should be routine in these two hemorrhagic conditions not only to replace blood lost before the operation, but, as Bill⁶ has shown, to render the uterus capable of contracting, thus preventing further hemorrhage postpartum.

General Debilitating Diseases

Patients with decompensated heart disease including either the hypertensive, rheumatic or other variety, particularly in a primipara, for whom bed rest and digitalization have produced only partial improvement, are best delivered by elective cesarean section under local anesthetic alone or local plus a minimum of nitrous oxide or cyclopropane inhalation anesthesia. In a multipara with a history of short easy labors the elimination of the second stage by forceps extraction will often be preferable.

Medical consultants, I find, are prone to insist on cesarean section with or without sterilization in cases of medical conditions such as cardiac and renal disease, and I feel that the obstetrician should be more than a mechanic who carries out the

method suggested by the internist. He should have some opinion of his own based upon his experience in the handling of these cases, for I fear the medical profession generally shares with the laity the opinion that cesarean section is a comparatively innocuous operation with little risk. There is a tendency in pregnancy complicated by medical conditions, as cardiac and renal disease and diabetes to urge cesarean section in order that the patient may be sterilized at the same time. Cesarean section should never be an excuse for sterilization. If abdominal delivery is indicated *per se*, both operations can be done at the same time. If sterilization alone is called for, it should be done after delivery, for the mortality rate is much lower for this operation than is that of cesarean section.

Pulmonary tuberculosis In the presence of active phthisis in a woman in her first pregnancy and in a multipara also—unless one has reason to believe she will have a short labor—it is better to obviate the strain of labor by abdominal delivery. This can usually be done under novocain local infiltration as suggested for the delivery of the cardiopath. Accurate studies of intrathoracic pressure measured on a manometer made during labor by Dr. John Lloyd⁷ have shown such a tremendous increase in pressure that he believes that most tubercular patients, even those with healed lesions, should not go through labor but that a rapidly done section under local anesthesia offers a much better prognosis. It is possible that this increase in intrathoracic pressure with consequent breaking down of adhesions and healed lesions may explain why many phthisical patients doing well during pregnancy because of increased metabolism go down hill rapidly after their delivery.

Toxemia of pregnancy Induction of labor in the eighth or ninth month is often disappointing, *first*, whether it will succeed at all, and *second* because, even though successful, the time involved is indefinite. This applies to either hydrostatic bag or bougie induction. Medical induction by castor oil and quinine with or without pituitrin or by rupture of the membranes is also uncertain. In the fulminating type of toxemia of pregnancy, time is a great element in the emptying of the uterus. These cases are well-handled by cesarean section under local anesthesia. One disadvantage in the employment of vaginal cesarean section for this condition is the necessity of using general anesthesia.

Previous Cesarean Section

"Once a cesarean always a cesarean." That

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this dictum is not only unfortunate but also untrue is proven by the number of cases delivered safely every year through the pelvis. With the broadening of the indications in the last few years to include many conditions where disproportion between the size of the pelvis and head is not present, as placenta previa and pre-eclamptic toxemia, this becomes an increasingly important question. The decision to repeat a cesarean where the previous section or sections were done for extra pelvic or nonobstructive causes should be made only after a thorough study of each individual case. The first factor that should enter into the decision is the time interval since the last abdominal delivery. If this is relatively short one should favor a repetition of the operation. If the recovery from the previous operation was stormy, that is if there was fever and other evidence of infection (thus indicating imperfect healing of the uterine wound and herefore its greater liability to rupture) the patient has a better prognosis if delivered in the same manner as before. The advent of the low cervical operation has modified considerably our concepts of this moot question for the reason that the location of the scar in the lower uterine segment and cervix renders rupture during pregnancy and labor much less liable. Of the many thousands of laparotrachelotomies done in the past fifteen or twenty years, only a very few have been followed by rupture, so again we have another factor to consider in our decision, in other words, it is much safer to subject to labor a patient whose previous cesarean section was of the low technic. In any case where delivery through the pelvis is decided upon, the second stage, when the uterine scar is subjected to the greatest strain, should be obliterated or shortened by forceps delivery. Any woman with a uterine scar, subjected to labor in a subsequent pregnancy, should be in a well-equipped maternity hospital and under constant observation. The estimated frequency of rupture of cesarean scars in subsequent pregnancy or labor is four per cent. Holland^o found eighteen cases out of 448, and of this number 352 were delivered by section by election. The eighteen ruptures occurred among the ninety-six that went into labor, so the rate of rupture for those subjected to a test was 18¾ per cent. These figures apply of course to the classical operation.

Pelvic Plastic Repair Procedures

In any case where a fistula resulting from a previous pelvic delivery has been successfully repaired, this work should not be nulli-

fied by a pelvic delivery. This is true also of a well-repaired complete perineal laceration unless the baby is unusually small.

Amputation of the cervix often is an insurmountable obstacle to the dilation of its remaining fibers and necessitates cesarean.

Elderly Primiparity

I have heard it said by enthusiasts that every woman having her first baby after her thirty-fifth year should have an elective cesarean section. This of course is such an extreme view as to be absurd. In labors an extreme view as to be absurd. In labors in 307 elderly primiparae reported by me five years ago,⁸ thirty-five or 11.4 per cent had their babies by the technic under discussion, but in only 2.9 per cent of the total of 307 was elderly primiparity the sole indication and then only after a test of labor. In the remaining 8½ per cent of the total, other factors as contracted pelvis, etc., complicated the picture and would have probably demanded cesarean section if the woman had been in her early twenties. I do feel, however, that in case of lack of progress in the elderly primipara, if the choice of competing methods of delivery lies between version, difficult forceps, and cesarean section, we should lean much more toward the last method than we would if the patient were under thirty with therefore greater chances for future successful pregnancies and labors.

In many cases one indication alone is not present, but, while no one of several factors in a given case seems sufficient, the composite picture indicates that the mother or baby or both would fare better if delivered by abdominal section. This is well-illustrated by the following cases.

A primipara of forty who had been through a period of amenorrhea and sterility as the result of ill-advised treatment of a simple menorrhagia by radiation, became pregnant. She threatened to abort but, by bed rest and sedatives, she was carried to the eighth month when she went into labor which was complicated by a mild premature separation of the placenta and transverse position of the child. Here the value of this child was great because of the improbability of future pregnancies. A living child was delivered by cesarean section and is now over two years of age. No conception has followed this pregnancy.

An elective operation was done in another case of a primipara of forty suffering from toxemia. Neither the elderly primiparity nor the toxemia might have seemed to me to be sufficient justification for delivery by cesarean section but the combination of the two conditions presented a problem which it appeared could best be solved by abdominal delivery.

Contraindications

That too many cesarean sections are done today is generally admitted. It is also true that the mortality rate is unwarrentably high due to improper handling of cases in labor before subsection to operation and to the injudicious selection of cases. It is just as important to clearly emphasize when the operation should not be done as it is to outline reasons for its performance.

Do not operate on the woman upon whom attempts at delivery have been made. The mortality rate for these cases approaches thirty per cent.

Do not operate after many vaginal examinations have been done, no matter how meticulous the technic, or even after one vaginal examination made without regard to rigid asepsis.

The length of labor is a factor. We know bacteria can be found in the birth canal after dilatation of the cervix. Long labors often mean also exhaustion of the patient. The time that has elapsed after rupture of the membranes is the third factor, whether the patient has been examined or not. Eardley Holland⁹ analyzed 4197 cesarean sections in the British Isles and the following tabulation of mortality rate from his study is very significant.

	%
After elective cesarean	16
Patients operated early in labor	18
Patients operated late in labor	10
After induction of labor	14
After attempted forceps	27

In a series of 110 operations collected by Trillat,¹⁰ forty-three clean cases gave one death (uremia) (23%), fifty-three suspicious cases gave three deaths (56%), and fourteen febrile cases gave four deaths (28.5%), a total mortality of 7.2 per cent.

In thirty-two, the membranes had ruptured up to twelve hours with a mortality of 6.1 per cent, in eleven, the membranes had ruptured twelve to twenty-four hours, a mortality of 9.0 per cent, in twelve, the membranes had ruptured 24+ hours, a mortality of 33.3 per cent.

Nothing is said in Trillat's paper as to vaginal examinations. This mortality rate is inexcusably high and it seems that examinations must have been made. Nine per cent is much too high a death rate for membranes ruptured twelve to twenty-

four hours unless vaginal manipulation had occurred.

Eclampsia is, I believe, an almost absolute contraindication. The mortality for the convulsive toxemias treated by section in many series of cases has been found to be much higher than that in the conservative treatment of the disease, and no obstetrical clinic that I know of employs this method of delivery in eclampsia today. Holland's series showed a thirty-two per cent mortality in eclampsia, and in Detroit in 1925 the rate was 42.7 per cent.

Uterine inertia alone is very rarely an indication *per se*. Encouragement and rest by the use of morphine will usually solve the problem of inertia without resort to cesarean.

Technic

There is nothing involved or complicated in the performance of this operation. In fact its very simplicity reacts to its detriment because of its too frequent employment. While it is a simple operation I would like to emphasize a few points.

Morphine should not be given before operating because of the danger of fetal asphyxia. Nitrous oxide or cyclopropane combined with local one-half per cent novocain is the ideal anesthetic combination. Local infiltration with novocain can be used alone where inhalation anesthesia is contraindicated as in toxemia, pulmonary tuberculosis, and cardiac decompensation. Pituitrin should be injected into the uterus as soon as the abdomen is opened or it can be given intravenously at this time. The site of the uterine incision can be packed about with gauze to absorb the amniotic spill. The uterus is then opened in its lower half *in situ*—the fetus delivered by the feet. An assistant should be in readiness to take over the baby at this point and all provisions for treating asphyxia should be in readiness such as a cylinder of carbon-dioxide-oxygen, a tracheal catheter, and warm tub bath. The placenta should not be extracted by traction upon the cord for fear of inverting the uterus through the incision. In closing the uterine incision, the first row of chromic catgut should include about one-half the thickness of the

musculature and should not penetrate the mucosa, this row should be interrupted. The second row of continuous chromic includes the remaining musculature up to the serosa which in turn is sutured with plain number 1 catgut. I have never packed the uterus or left the placenta to be expelled through the cervix.

Laparotrachelotomy or low cervical cesarean section by the single or double peritoneal flap method marks the fifth historical period in the development of this operation. The abdomen is opened by a midline incision from the umbilicus to the symphysis. Catheterization of the bladder should have been done just before the operation—one may or may not pack with gauze around the site of the incision. The first step is a transverse incision through the peritoneum of the lower uterine segment about three-quarters of one inch above the bladder reflection. This is easily done by scissors opened in the line of cleavage to separate the peritoneum from the uterus and then cut across this line. The upper flap is carefully stripped back from the uterine wall for an inch or an inch and a half upward. In similar manner with the bladder held near the symphysis by a suprapubic retractor, the lower flap is separated well down behind the bladder to the cervix so that there is exposed by the two flaps a space on the lower uterine segment of about five inches. Either ergotrate or pituitrin should now be given intravenously. The uterus is opened with a knife at the upper end of the exposed space and is enlarged to its full length by bandage scissors taking care to protect the bladder. I have not employed the transverse uterine incision because of its proximity to the vascular areas of the broad ligaments because of danger of troublesome bleeding from extension of the incision on removing the baby. There is, I believe, greater danger of pulmonary embolism for the same reason.

Delivery of the child is effected by shelling out the head in vertex presentation using one hand as a vectis and employing pressure upon the fundus with the other. After delivery of the placenta, suturing of the uterine incision is begun at the lower angle with number one chromic continuous suture. The effort is made to avoid inclusion of the endomet-

rium in the suture but because of the thinness of the lower uterine segment this is often impossible. A second more superficial layer of interrupted sutures is placed in the musculature. It is important that one of these two layers of sutures should be interrupted. Suturing is begun at the lower angle because the bleeding is more profuse here. After closure of the uterine incision the upper peritoneal flap is brought down and tacked down to the uterine wall with a fine running suture, the lower flap is brought to overlap the upper and tacked down. In doing this, it is important to avoid inclusion of the bladder in the suture for several vesicouterine or vesicocervical fistulae have been reported from injury to the bladder wall. The closure of the abdominal wall is done in the usual manner. The after care of all cesarean cases is important and can be briefly summarized as follows:

- 1 1,500 c.c. of saline or five per cent glucose is given subcutaneously in the anterior thighs.

- 2 Morphine is given in sufficient quantity to keep the patient free from pain.

- 3 Only sips of hot water are allowed by mouth for the first twenty-four hours, acute gastric dilatation is a not infrequent complication of a cesarean puerperium and is a dangerous and unpleasant event.

- 4 In the low cervical cases if the patient has not voided by eight hours she should be catheterized because of the suture line in the lower or bladder peritoneal flap.

- 5 Clear tea and ginger ale are permitted on the second day.

- 6 The patient should be put in the semi-Fowler position after twenty-four hours to favor uterine drainage.

- 7 For abdominal distension, flaxseed poultices and the rectal tube. An enema is not given until after peristalsis has started and the patient is passing flatus. This is sometimes not until the third or fourth day.

- 8 Patients are allowed out of bed on the tenth day.

The employment of the low cervical technic or laparotrachelotomy for the past fifteen years or more has proven its superiority over the classical technic especially in the cases in labor. I wish to quote from a paper I wrote seven years ago entitled "A Study of 165 Consecutive Cesarean Sections."

- 1 Sutures placed in the lower uterine segment are not subjected to as much stress

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	%
After elective cesarean	1.6
Patients operated early in labor	1.8
Patients operated late in labor	10.0
After induction of labor	14.0
After attempted forceps	27.0

In a series of 110 operations collected by Trillat,¹⁰ forty-three clean cases gave one death (uremia) (2.3%), fifty-three suspicious cases gave three deaths (5.6%), and fourteen febrile cases gave four deaths (28.5%), a total mortality of 7.2 per cent.

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7 There is much less chance for peritonitis postoperative, the most frequent cause of death following classical cesarean section

8. With this type of operation in reserve a real test of labor may be employed in borderline pelvic contraction and it will be found that a large percentage can be delivered per vaginam

9 It can be used in referred cases seen later in labor, unless they have been grossly mismanaged.

10 The mortality is lower, a series of 620 operations with only 6 deaths (three of which were nonoperative deaths) in one clinic, a percentage of less than 1 as against 4 to 5 per cent in unselected series of classical sections

11 The comfort of the patient in comparative freedom from vomiting, distension and pain, these patients present as little evidence of shock or exhaustion as one following a clean appendectomy and much less than the case subjected to a difficult instrumental delivery through the pelvis

There is no difficulty in repeating the operation, several patients have had 3 laparotomies and on one woman I have done 6 of these low cervical cesarean sections, repeating the original two flap technic 5 times without difficulty

Mortality of Cesarean Section

The mortality of cesarean section varies from zero in a few series of one to two hundred cases each, to fourteen per cent. The death rate for City surveys is higher than that of clinics of well-organized Lying-In hospitals and is lowest in several series conducted by one obstetrician. Fortunately the percentage of death is falling. This is due to the adoption of a more conservative attitude in the choice of cases for operation, that is in not operating on the badly handled case which is potentially infected. Also it is due to the more widespread employment of the low cervical technic. Tables I-II show the average risk in two large series, first of the older or classical section and second of laparotomies

The number of operations in both series is sufficient from which to deduce accurate estimates. They are from diversified sources, clinics, city wide surveys, and individual operators. It is quite evident that, with a mortality rate of only one third of that of the older technic, low cervical section carries much less risk to the

patient. For this reason, it should be more generally adopted for, if it is superior in the cases of trial labor it should also be superior for the elective case.

Opinions as to the general mortality of cesarean vary. Stander³⁰ estimates the general rate throughout the United States to be ten per cent. The White House Conference questionnaire to 138 hospitals showed 2,273 cases operated with 134 deaths (5.9%). Stander says that if done at the appropriate time in properly selected cases in good surroundings by a well-trained operator, the mortality rate of cesarean section should be no more than one-third of one per cent. This I feel is too optimistic a view. One of the commonest causes of death following cesarean is pulmonary embolism which is particularly common after this operation. The incidence of pulmonary embolism in pregnancy in general is 0.1 per cent, but in pregnancy complicated by cesarean it is 1.5 per cent. Postpartum hemorrhage may complicate delivery by the abdominal route as it does pelvic births. Neither of these conditions can often be foreseen and usually they are not amenable to treatment. It is because of such unpreventable fatal complications that we should hesitate before a decision is made. What should be the death rate for this operation?

I agree with Stander that, given the ideal conditions outlined by him, the rate should not exceed one third of one per cent. Operating under the strictures laid down by Stander, however, means that we would be doing it only as a procedure of election. Schumann³¹ has made a plea for the elective operation. It is quite true that if cesarean section were done only before labor or at its onset the mortality rate would be lower. This implies more exact estimation of the relative proportion of the size of the head and pelvis than is possible except by trial labor which properly handled I believe is justifiable.

To return to Standers estimate of a death rate of one-third of one per cent under the ideal conditions outlined by him. This would not permit of the use of cesarean in placenta previa and ablatio placentae or severe cardiac disease. This rate of 3 per cent corresponds closely to that of the series reported in this paper (264 operations with one death) where

from contraction and relaxation of the uterine musculature making for a stronger scar. Four patients in this series have been operated upon twice and one thrice by the low cervical technic, in all of these the scar in the uterus could not be identified.

2 A lessened liability to uterine rupture in subsequent pregnancies and labors. There have been only ten ruptures in the 3,600 reported operations, 0.28 per cent as against 2.5 to 4 per cent for the classical operation.

3 Because of this the dictum "Once a

cesarean always a cesarean" is not as valid today as it was a few years ago. It is safer in other words to permit of a trial labor in cases where the indication for the original low cervical section was extrapelvic than were the original operation the classical.

4 Cervix is more tolerant of infection.

5 The lower abdomen stands infection better than the upper.

6 In case infection does occur outside the uterus, it is in a location most favorable for its localization and evacuation.

TABLE I—COLLECTED MORTALITY RATES CLASSICAL CESARIAN SECTION

	Years	No. of cases	Deaths	Mortality rate	Fetal mortality
Detroit City Survey ¹¹	1925	154	20	13	
Detroit City Survey ¹²	1930	105	8	7.61	
Philadelphia City Survey ¹¹	1931	184	0	0	
Houston City Survey ¹¹		104	15	14.4	11.5
Houston City Survey		153	8	5.2	
Cleveland City Survey ¹¹	1926-31	827	63	7.6	
Portland Ore. City Survey ¹⁷	1926-29	217	10	4.6	10.1
Atlanta City Survey ¹⁸	1925-30	220	12	5.5	16.4
South Bend City Survey ¹¹		116	17	14.6	
Jewish Mat. Brooklyn ²⁰		733	25	3.4	6.5
Boston Lying-In ²¹	1894-1931	1	556	76	4.9
Univ. Cal. Hospital ²²	1908-33	113	7	6.1	
Robinson Memorial ²²	1911-19	214	22	10.2	
Robinson Memorial	1919-31	409	26	6.4	
Margaret Hague ²¹	1931-32	35	2	5.7	
C. T. O'Conner ²³		296	12	4.0	
Sceley ²⁴		134	0	0	
Quigley	1913-36	127	2	1.57	
		5,757	325	5.6	

COLLECTED MORTALITY RATES LOW CERVICAL SECTION

	Years	No. of cases	Deaths	Mortality rate
Detroit City Survey	1930	87	0	0
Cleveland		108	3	2.8
Univ. Cal. Hospital	1908-33	165	0	0
Robinson Memorial	1919-31	376	5	1.33
Phaneuf ²⁵		515	22	4.2
Margaret Hague	1931-32	116	5	4.2
South Bend		183	5	2.7
C. T. O'Conner		133	7	5.3
Chicago Lying-In ²⁶		1,780	18	1.01
Bailey K. V. ²⁷		119	0	0
Quigley	1921-36	118	1	0.85
		3,700	66	1.78

TABLE II—CONTRASTING MORTALITY RATES OF CLASSICAL AND LOW CERVICAL SAME OPERATORS

	Cases	Classical—Deaths	Mort. rate	Cases	Low cervical—Deaths	Mort. rate
Detroit	105	8	7.61	87	0	0
Cleveland	827	63	7.6	108	3	2.8
Univ. Cal. Hospital	113	7	6.1	165	0	0
South Bend	116	17	14.6	183	5	2.7
Robinson Mem. Hospital	623	48	7.7	376	5	1.33
Margaret Hague Hospital	35	2	5.7	116	5	4.2
C. T. O'Conner	296	12	4.6	133	7	5.3
Quigley	127	2	1.5	119	1	0.84
	2,242	159	7.0	1,287	26	2.02

COLLECTED MORTALITY RATES CESAREAN SECTION ALL FORMS

	Cases	Deaths	Rate
Classical	5,757	325	5.6
Low cervical	3,700	66	1.78
White House Conference, 138 hospitals	2,273	134	5.9
Private Patient Department	264	1	0.3
Rochester General Hospital			
	11,994	526	4.38

of 1004 on each of two succeeding days following delivery not including the day of operation. There are many conditions which might seriously threaten the well-being or even the life of the patient which would not fall under this criterion. Hemorrhage late, pulmonary embolus, and ventral hernia, are examples. Morbidity should be measured by the complications whether febrile or afebrile which temporarily or permanently affect the patient to the detriment of her health and physical condition. When we honestly review any series of these operations, while we may superficially consider the procedure a comparatively harmless one if our mortality rate is low, nevertheless we will find that many of these patients were in real danger and it is this thorough evaluation of the operation which should guide us in our decision whether to operate or not.

Complications to be considered are, of course, sepsis, peritonitis, infection of the abdominal incision, pulmonary embolus, and thrombophlebitis pelvic or crural.

Complications encountered in the series of ninety-four ward and 264 private cesarean operations in the General Hospital series

Pulmonary embolus fatal	1
Pulmonary embolus non fatal	2
Phlebitis (phlegmasia alba dolens)	6
Infection of abdominal incision	11
Ileus	3
Intestinal obstruction, operation	1
Perforation of adherent bowel at subsequent section	1
Opening of abdominal incision necessitating operation	1
Ventral hernia	1
Vesicocervical fistula spontaneous closure	1

Possible sequelae are weak uterine scar with its tendency to rupture, adherent

bowel with danger of injury at subsequent section.

Sterility has been given as a frequent sequel to cesarean section—I do not believe however that infertility often follows the operation as a result of it but that the sterility is voluntary on the part of the patient, possibly because of her reluctance to undergo a repetition of the operation. I cannot understand how an incision in the uterus could produce sterility. The sequelae are relatively uncommon. The patient who has had her child or children by cesarean section is usually none the worse for it and has escaped damage to the cervix and pelvic floor with which so many patients who have had difficult deliveries through the pelvic canal have to contend.

Conclusions

1 Cesarean section occupies a well-deserved place in the obstetric procedures of today.

2 The indications for its performance have increased tremendously in the past twenty-five years.

3 The mortality rate throughout the United States is probably between seven and ten per cent, whereas it should not be above one and one-half to two per cent.

4 The high death rate is due not so much to errors in operative technic as to poor judgment used in selecting cases for operation, because (a) its indications and contraindications should be more positively defined (b) Laparotrachelotomy has a wider application and a lower mortality rate than the older or classical technic, therefore laparotrachelotomy or the low cervical section should be more generally employed.

26 So GOODMAN ST

References

- Holmes, R. W. *Surg., Gyn. & Obs.* 21 641, 1915
- Williams, J. Whitridge *Ibid* 25 194, 1917
- Denman *Practice of Midwifery*, 1807
- Mess *Obstetrics The Science and the Art* 1849
- Playfair *A Treatise on the Science and Practice of Midwifery* 1876
- Bill, Arthur *Am. Jour. Obst. & Gyn.* 21 227, 1931
- Lloyd John J. Personal communication.
- Quigley, J. E. *Am. Jour. Obst. & Gyn.* 21 234, 1931
- Holland, Eardley *Jour. Obs. & Gyn. British Empire* 28 358, 1921
- Trillat P. *Bull. Soc. d'obst. et de gynec.* 21 697, 1933
- Weiz W. E. *Am. Jour. Obst. & Gyn.* 13 361, 1927
- Quigley, J. E. *Ibid*, 17 597, 1929
- Seeley W. F. *Ibid* 13 361, 1927
- Lull, C. B. *Ibid* 25 426, 1933
- Johnston R. A. and Smith, F. B. *South Med. Jour.* Aug. 1931
- Skeel A. J. and Jordan, F. F. *Am. Jour. Obst. & Gyn.* May 1932
- Adams T. W. *Ibid* Apr. 1932
- Calvin, E. D. *Ibid* 26 90, 1933
- Bickel, D. A. *Jour. Indiana Med. Assn.* 28 482, 1935
- Daichman, I. and Pomerance, W. *Am. Jour. Obst. & Gyn.* 25 522, 1933
- Smith, J. A. *Surg., Gyn. & Obst.* 57 621, 1933
- Maxwell, A. F. *West. Jour. Surg.* 42 14, 1934
- Conruss, M. and Fisher, J. C. V. *Am. Jour. Obst. & Gyn.* May, 1932

the indications were many 100 had had trial labors or were in labor but I believe this rate will never again be equaled at this hospital, and that a rate less than one per cent for the operation done in large numbers is an ideal that is hardly possible of improvement

The commonest cause of death following cesarean section is infection usually in the form of peritonitis This can be prevented by proper handling in labor eliminating vaginal examination and in refusing to operate on a patient whose membranes have been ruptured a long time (over 24 hours for instance), second and of equal importance, any case in labor should be operated by the low flap cervical technic If there is reason to believe infection is already present as shown by the methods used in handling the case or

collapse as the result of a pulmonary embolus This one death in 264 gives a mortality rate of 0.3 per cent

Morbidity In estimating the morbidity (a temperature of 100.4 per cent on two successive days postoperative not including the day of operation) I have purposely separated the low cervical from the classical group (Table III)

Significant facts in this table are that while the morbidity rate is practically the same in the low cervical and classical, sixty-one per cent of the low cervical had had trial labor (after which morbidity is to be expected) as against nineteen per cent of trial labor in the classical Put another way, eighty per cent of the classical sections were done before the onset of labor and should theoretically have shown a much lower morbidity rate than

TABLE III

	<i>Trial Labor</i>	<i>Elective</i>	<i>Morbidity</i>
Classical	29 (19.4% of total of classical)	120 (80.5%)	48 (32.2%)
Low Cervical	71 (61.7% of total of low cervical)	44 (38.2%)	39 (34.0%)
	100	164	

by the presence of fever, cesarean should not be done, but delivery through the pelvis should be the choice even at the cost of an unpleasant embryotomy The other alternative is the Porro operation, cesarean section, and hysterectomy The low cervical cesarean is not for the badly handled or infected case

While the 12,000 collected cases in the above table show a mortality of less than five per cent, I believe the mortality in the country at large is higher than this, for the collected series includes reported cases only and except for the included city surveys represents the work of expert operators and specialized clinics

From January 1, 1926 to August 1, 1936 there were performed in the private patient department of the Rochester General Hospital, 264 cesarean sections, 259 or ninety-seven per cent of which were done by members of the attending obstetric staff One patient died suddenly on the thirteenth day having had a normal afebrile puerperium She was sitting out of bed and had been discharged to go home the next day, when she went into

the laparotrachelotomies of which only thirty-eight were elective operations I attribute this rather enviable record as to maternal mortality to the following

1 The use of the low cervical cesarean section in seventy-one per cent of the cases subjected to trial labor

2 Vaginal examinations had been done in only twenty-nine of 253 cases where there was available data

3 No operation was preceded by forceps application or other attempts at delivery except in one case which had been bagged for placenta previa

4 The large number of classical sections done as elective or before the onset of labor

5 Anesthesia was given by an expert—a physician, of course, and gas oxygen—local combination in practically all cases except a few done under local alone

6 Proper selection of cases

7 Membranes were ruptured in only forty-nine of 261 with available data

Of almost equal importance with mortality should morbidity be considered The yard stick at present is that arbitrary one set up by the American Committee on Maternal Welfare, viz—a temperature

of 1004 on each of two succeeding days following delivery not including the day of operation. There are many conditions which might seriously threaten the well-being or even the life of the patient which would not fall under this criterion. Hemorrhage late, pulmonary embolus, and ventral hernia, are examples. Morbidity should be measured by the complications whether febrile or afebrile which temporarily or permanently affect the patient to the detriment of her health and physical condition. When we honestly review any series of these operations, while we may superficially consider the procedure a comparatively harmless one if our mortality rate is low, nevertheless we will find that many of these patients were in real danger and it is this thorough evaluation of the operation which should guide us in our decision whether to operate or not.

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References

- Holmes, R. W. *Surg., Gyn. & Obs.*, 21 641, 1915
- Williams, J. Whitridge. *Ibid.* 25 194, 1927
- Denman. *Practice of Midwifery*, 1807
- Meigs. *Obstetrics The Science and the Art* 1849
- Plavfair. *A Treatise on the Science and Practice of Midwifery* 1876
- Bull, Arthur. *Am. Jour. Obst. & Gyn.*, 21 227, 1931
- Lloyd, John J. Personal communication
- Quigley, J. K. *Am. Jour. Obst. & Gyn.*, 21 234, 1931
- Holland, Eardley. *Jour. Obs. & Gyn. British Empire*, 28 358, 1921
- Trillat, P. *Bull. Soc. d'obst. et de gynec.*, 21 697, 1933
- Weiz, W. E. *Am. Jour. Obst. & Gyn.* 13 361, 1927
- Quigley, J. K. *Ibid.*, 17 597, 1929
- Seeley, W. F. *Ibid.* 13 361, 1927
- Lull, C. B. *Ibid.* 25 426, 1933
- Johnston R. A. and Smith, F. B. *South Med Jour.* Aug 1931
- Skeel, A. J. and Jordan, F. F. *Am. Jour. Obst. & Gyn.*, May 1932
- Adams, T. W. *Ibid.*, Apr 1932
- Calvin, E. D. *Ibid.* 26 90, 1933
- Bickel, D. A. *Jour. Indiana Med. Assn.*, 28 482, 1935
- Daichman, I. and Pomerance, W. *Am. Jour. Obst. & Gyn.* 25 522, 1933
- Smith, J. A. *Surg., Gyn. & Obst.*, 57 621, 1933
- Maxwell, A. F. *West Jour. Surg.*, 42 14, 1934
- Courtiss, M. and Fisher, J. C. V. *Am. Jour. Obst. & Gyn.*, May, 1932

- 24 Waters, E G and Leavitt, B *Ibid* 29 535,
1935
25 O'Conner, C T *New England Jour Med*,
210 948, 1934
26 Seeley, W F *Am. Jour Obst & Gyn*, 28 115
1934
27 Phaneuf, L. E. *New England Jour Med*

- 210 245, 1934
28 DeLee, J B *Year Book Obs & Gyn*, 231,
1935
29 Bailey, K. V *Lancet*, 1 672, 1934
30 Stander, H J *Am Jour Obst & Gyn*, 29 559,
1935
31 Schumann, E A *Ibid*, Feb 1932

PHILADELPHIA POSTGRADUATE INSTITUTE

"Diseases of the Chest and Upper Respiratory Tract" will be discussed at the Second Annual Session of the Postgraduate Institute of The Philadelphia County Medical Society

The subject to be considered is of great interest to general practitioners and its various ramifications will be ably discussed by fifty Philadelphia physicians, each one a qualified teacher, who will speak with authority. A scientific exhibit and clinical demonstrations will add to the value of the program. This year, the Postgraduate Institute undoubtedly will contribute the outstanding sectional scientific medical meeting in the East.

Members of all County Medical Societies are cordially invited to register as Annual Members of the Institute and to attend its scientific sessions. A Philadelphia welcome awaits them.

Further information will be furnished by the Secretary of your Society or upon application to the Executive Office of The Philadelphia County Medical Society, 21st and Spruce Street, Philadelphia, Penn.

The JOURNAL has been informed of the following details

1 Registrants shall be members of a county medical society and must present credentials

2 Subject, "Diseases of the Chest and Upper Respiratory Tract," to be discussed by fifty teachers

3 Date of Meeting, April 12 to 16, 1937

4 Place of Meeting, Bellevue-Stratford Hotel, Philadelphia, Penn.

5 Registration Fee, \$5 00

6 Hotel accommodations at reasonable rates may be obtained by writing to Frederick S. Baldi, M.D., Chairman on Hotels, S E. Corner 21st and Spruce Streets, Philadelphia, Penn.

7 A scientific exhibit as well as technical exhibits will be displayed

WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE

The Council Meeting of the Women's Medical Society of New York State was held in New York City, January 16 and 17. The business of the Society was transacted and plans were made for the Annual meeting to be held in Rochester in May preceding the regular state meeting.

Officers for the ensuing year were nominated as follows: President Dr Anna Walsh—Buffalo, Vice-Presidents Dr Kathleen Buck—Rochester, Dr Annie Daniel—New York City, Dr Alice S. Wooley—Poughkeepsie, Treasurer Dr Alta S. Green—Williamsville, Secretary Dr Marguerite P. McCarthy—Solvay, Chairman of the

Scientific Program Dr Margaret Warwick—Buffalo, Chairman of Publicity—Dr Madge C. L. McGuinness—New York. Dr Louise Hurrel of Rochester was appointed Chairman of Arrangements for the May Meeting.

Dr Isabelle Knowlton of New York Infirmary addressed the Society on "Radiation in Carcinoma of the Cervix." Dr Harriet McIntosh, New York, read a paper on "X-radiation in Bone Metastasis."

Guests of honor at the Dinner held at the Cosmopolitan Club were Dr Maude Abbot of the McGill Faculty of Medicine and Dr Mabel Aiken of Oregon.

A colored mammy walked in and asked for one of those little known southern preparations—an ointment. When asked what she wanted it for she said it was used for

the "seven year itch," and said she, "Doc, it's wonderful, I've been using it fourteen years"

—R D A Journal

AURAL VERTIGO

E MILES ATKINSON, MD, FRCS, *New York City*

Assistant Surgeon, Manhattan Eye, Ear and Throat Hospital, Late Hunterian Professor, Royal College of Surgeons of England

It is common knowledge that some lesion of the labyrinth or vestibular tract is the most usual cause of vertigo—Sir William Gowers put it as high as ninety per cent of all cases—but the fact must not be forgotten that many other lesions of the central nervous system may also cause this symptom. The maintenance of equilibrium depends upon the integrity of a complicated reflex arc, involving not only the ear and vestibular tract, but the eye, muscles, joints, and their connecting tracts in the brain and spinal cord. Interference, therefore, with any one or more of these may result in difficulty in the maintenance of equilibrium and consequently produce the sensation of dizziness. Thus, before treating a case of vertigo as one of aural origin it is essential to rule out other possible causes.

Causes Other Than Aural

1 *Abnormalities of end-organs* Visual vertigo, the result of muscular imbalance or fatigue, is quite common but is often overlooked, and immediate relief comes from the prescribing of suitable spectacles.

Vertigo of the neck reflexes probably seldom, if ever, occurs as a single entity, but some interference with this reflex mechanism, by fibrositis or arthritis, accompanies more cases than is realized, and the ignoring of this possibility can be a cause of failure for the doctor and of kudos for the chiropractor. I have recently seen such a patient who, after five months vain doctoring, was relieved of his vertigo, though not of his accompanying deafness, by manipulation, to the lasting discredit, in his eyes, of the medical profession.

2 *Central nervous system*

(a) Tabes, multiple sclerosis, Friedreich's ataxia, cause dizziness from interference with nerve tracts other than the vestibular. It is very easy to miss such cases, particu-

larly in their early stages and if accompanied by some degree of deafness, as they well may be. Every case of vertigo must have a neurological overhaul before treatment is started.

(b) Increased intracranial pressure may produce a "choked" labyrinth, on the same principle as the choked disk. The lesion is commonly in the posterior fossa.

(c) Tumors of cerebellum, of midbrain if they involve the supranuclear tract.

(d) Epilepsy, particularly the minor variety, is often associated with vertigo and is a not uncommon source of diagnostic error.

3 *Toxic* Certain poisons, either drugs or bacterial toxins, may produce vertigo. Malaria, as also the quinine used to cure it, typhoid fever, syphilis, either hereditary or acquired (of which more later)—all have vertigo as part of their symptomatology, while of drugs, quinine, as stated above, arsenic, and alcohol are well-known as having a selective action on the eighth nerve. Tobacco, though always put in this list as a cause of vertigo, affects much more the auditory than the vestibular division.

Encephalitis lethargica often causes vestibular symptoms—the site of attack probably is the region of the nuclei. Cerebrospinal meningitis may involve the labyrinth by invasion from within.

Accessory sinus suppuration is certainly a cause of vertigo, but this is probably the result more of the postnasal catarrh and the Eustachian obstruction it produces than of the direct absorption of toxins.

Dental infections may also be the source of the circulating toxin, and the removal of infected teeth has produced dramatic results. This is not to be interpreted as advocating indiscriminate pulling. For this as for other conditions I fear that many a good tooth has gone undeservedly.

4 *Vascular hyper- or hypo-tension* are both associated with vertigo. The actual *modus operandi* will be discussed later under Meniere's syndrome.

Aural Causes

Having ruled out these other possible causes, we are entitled to assume that the case is one of aural origin, and to investigate and deal with it as such. From now on in this paper, therefore, any reference to vertigo implies that it is of aural origin unless explicitly stated otherwise.

The sensation of dizziness is produced by a lack of balance between the two labyrinths. In the normal person, one labyrinth exactly balances the other, and posture is maintained by means of conditioned reflexes acting below the level of consciousness. Not until something goes wrong with the mechanism are we aware of maintaining posture. But as soon as something does go wrong—and that something may be such as to *depress* the function of one labyrinth as well as to *irritate* it—then we become conscious of balancing, we find a difficulty in doing so—we are, in a word, dizzy. The more considerable the discrepancy in function between the two labyrinths, the more severe the dizziness. In extreme cases there will be interference with the whole of the reflex mechanism and the vertigo will be accompanied by other manifestations—falling, pointing errors, nystagmus, gastrointestinal symptoms. As function returns to normal or compensation occurs, so the symptoms will subside. If, however, the threshold of stimulation of one labyrinth is permanently raised or lowered, then recurring attacks of vertigo will be liable to occur.

From the clinical standpoint we recognize the two large groups of aural cases—(1) cases due to middle-ear suppuration and (2) cases without suppuration.

Cases due to Middle ear Suppuration

Before rupture of the membrana tympani
It is not at all unusual to receive a complaint of dizziness before rupture of the membrane, and this dizziness may be quite severe. It is caused by the tension of the fluid in the middle ear which forces the stapes inwards and produces an unilateral increase of intralabyrinthine pressure. The dizziness usually disappears rapidly when the tension is relieved by rupture or incision of the drum. When it does not, the case passes into the next division.

After rupture of the membrane Vertigo

which arises or persists after drainage of the ear has been established, whether through the drum or by means of a mastoid operation (and this applies both to cases of acute and chronic suppuration) is a sign of much graver import and one on no account to be neglected. It tells of the invasion, threatened or accomplished, of the labyrinth by the infecting process, a labyrinthitis.

This is not the occasion to go into the difficult question of the varieties of labyrinthitis and their appropriate treatment. The one point of importance to appreciate is that infection of the labyrinth is extremely dangerous, and is so not because of any possible loss of function of the labyrinth itself, which is a minor matter, but because of the threat to the meninges. *Any case of labyrinthitis is potentially a case of meningitis.* The assessment of the extent of the infection, of the danger to the meninges, of the relative risk to the patient of operating or not operating on the labyrinth, are not matters which come within the scope of this paper. They require much judgment and experience, and even the experts are divided. Thus some are for early operation, others for late, some are radical, others are conservative, though in truth, as Alexander says, there is neither early nor late operation, only operation at the right time. To recognize that time is the function of experience. All of which is intended only to stress the point that cases of labyrinthitis are very difficult to handle, and that therefore any threatened case should at once be put under conditions where an experienced opinion is available and where, if necessary, a delicate and dangerous operation can be performed at any moment.

Before leaving the subject of labyrinthitis, I should like to stress the deceptive character of its symptoms. While invasion of the labyrinth may, and sometimes does, occur slowly and insidiously and without producing symptoms, it more often occurs rapidly and manifestly and shows itself by the classical signs of dizziness, vomiting, nystagmus, pointing errors. The two first are those that strike the patient and are recounted to the doctor, who may be led into the trap of diagnosing a bilious attack or gastric influenza. *A bilious attack, in a patient with past or present ear discharge, should be considered as an invasion of the labyrinth until the contrary has been proven.* A very simple examination will decide the matter—observation of the presence or absence of nystagmus, and its direction will indicate the urgency of the danger. The direction of a nystagmus is always described as that of its quick component. If the direction of the nystagmus is towards the diseased

ear, it indicates an irritation only of the affected labyrinth, if it is away from the diseased ear, it indicates the much more serious condition of paralysis from invasion by the infecting process. *A change of direction of nystagmus in the presence of suppuration is a sign of urgent danger.* Many a disaster has occurred from failure to appreciate this—it has needed the signs of an established meningitis to bring home the true state of affairs, by which time the prognosis has become well-nigh hopeless.

"Chink" vertigo. This is an apt term applied to certain cases which, as the result of a suppurative process in the middle ear, have been left with a large perforation in the membrane or have had a radical mastoid operation performed—in either event, who become dizzy if they dive into cold water or are out in a cold wind. The explanation is that they have unduly sensitive inner tympanic walls and that the impact of the cold air or water produces a cold caloric reaction. To bathers it can be a very real danger. The trouble can be prevented very simply by a piece of cotton smeared with vaseline and placed in the meatus.

Bárány's syndrome. There is a small but important group of cases to which Bárány called attention some years ago. They are characterized by intense vertigo, auditory disturbances, and severe headache, and have usually followed a suppurative process, possibly after an interval of years. A number of cases have now been described (Bárány¹ Jenkins²). The condition seems to be due to a collection of fluid in the posterior fossa, possibly to dilation of the saccus endolymphaticus (Fraser, Tweedie³), and can be cured by opening and draining the cyst. I have only had two such cases in my own practice, and in neither was I able to convince myself that the duct entered the cyst. Certainly both were relieved very rapidly after drainage. The operation is difficult because adequate exposure is not easy to obtain.

Cases without Suppuration

This heading immediately suggests Meniere's disease, that unfortunate omnibus term used to designate a large group of cases of doubtful pathology but similar symptomatology. But in addition to these, there are cases of aural vertigo without suppuration of whose causation we are certain, and it will be simpler to deal with them first and be rid of them.

Otosclerosis. The victims of this condition are liable to labyrinth storms, usually of minor degree and often described by them-

selves as bilious attacks. They are presumably the result of a temporary variation in the blood supply to one labyrinth. Occasionally these attacks are more severe, and then may be caused by an Eustachian obstruction superimposed on otosclerosis. It is well to keep this possibility in mind, as also that the obstruction may be on the sound or less affected side, for in such cases considerable relief can be given. In those due simply and solely to the otosclerotic process there is nothing to be done.

Hyperpnea. The dizziness which occurs in association with a raised blood pressure will be considered when dealing with Meniere attacks.

Syphilis. It is in acquired syphilis that vertigo is especially liable to occur, and in the secondary stage. The infection attacks the nerve, both portions of which are usually involved, and the course of the infection may be acute or chronic. In acute cases the onset is dramatic in its suddenness, the vertigo severe and prostrating, and it may be continuous for days or even weeks. I well remember the first case I ever saw. It was at a dance, and suddenly a young man went reeling about the floor and collapsed. He was, of course, presumed to have been worshipping at the shrine of Bacchus, whereas in fact Venus was the cause of his downfall. He was found to be stone deaf and quite unable to stand. It was three weeks after that before he was stable enough to leave the house. His hearing never recovered despite energetic treatment. He had a fading secondary rash at the time of his attack.

In chronic cases onset and course are similar but less severe and protracted, and the results of treatment are better, so that fair hearing is often preserved. In both varieties a dissociation of labyrinth reactions is characteristic, normal rotation reactions being found with absent caloric.

In congenital syphilis, vertigo is not usual. The auditory division is that usually affected, wherefore deaf-mutism is common.

Eighth nerve tumor. Although the cochlear branch seems to be more affected by the presence of a tumor than the vestibular, and consequently abnormalities of hearing rather than of balance to be the rule, yet occasionally the latter predominate, and therefore the possibility of this or an angle tumor has to be borne in mind in cases of vertigo. One of the earliest and most useful signs of the presence of a tumor, apart from eighth nerve manifestations, is loss of the homolateral corneal reflex from pressure on the trigeminal nerve. An absent corneal reflex demands the most thorough neurological investigation.

Paroxysmal Aural Vertigo, Ménière's Syndrome

It was in 1861 that Ménière described ten cases showing the symptom complex of recurring attacks of vertigo of variable severity, accompanied by progressive deafness and usually associated with tinnitus. Most unfortunately one patient died and was the subject of a postmortem examination at which a hemorrhage into the labyrinth was found, and to this cause the condition was for many years attributed. It got into the text-books and was handed on from one generation to another. Now whatever may be the true cause of Meniere attacks, it certainly is not hemorrhage. Hemorrhage destroys the labyrinth once and for all, while the outstanding feature of these attacks is their recurrence. But, though we know that hemorrhage is *not* the cause, we are frequently hard put to it to say what is. One thing is certain, that no single factor is responsible. The results of treatment are evidence enough of that, for where Eustachian inflation will cure one case, it will leave another unaffected. It is important to realize that Ménière's disease is not a disease but a syndrome, to get the idea firmly fixed and not merely to pay lip-service to the concept. One is so apt to attach the label and embark upon some stereotyped line of treatment, fondly pretending to oneself that one has made a diagnosis, instead of making a serious effort to discover the fundamental cause of the labyrinth imbalance. Granted that this is as yet often beyond one, failure to make the effort may lead to unfortunate mistakes. I have known the most persistent attempt made to cure an angle tumor by Eustachian inflation, and misguided efforts to lower blood pressure are a commonplace.

Pathology

It has already been said that we are very ignorant of the causation of these labyrinth storms, and many of our conceptions are in the realm of pure conjecture, but we have certain clinical and experimental facts to work on. It is obviously possible for a storm to be initiated by a stimulus applied either peripherally directly to the end-organ—

the labyrinth, or more centrally to the nerve, the ganglion or the central nucleus.

1 Peripheral stimulus As far as our present knowledge goes, we believe that the normal stimulus to labyrinth activity comes by way of the endolymph, by its movement in the semicircular canals, and by its cushioning effect on the otolith apparatus. We presume, therefore, that any abnormal stimulus will take the form of some alteration of the fluid content either in volume, consistency, or the pressure to which it is subjected. This alteration may be effected from without or from within.

(a) *From without the labyrinth* An unilateral Eustachian obstruction is far and away the commonest cause of Ménière attacks. Indeed, Scott⁴ says that seventy per cent of patients suffering from this condition have some degree of Eustachian obstruction, though whether this cause alone is operative in so large a proportion is perhaps doubtful. The mechanism is presumably a change of pressure in the middle ear altering the position of the stapes. A plug of wax pressing on the drumhead will sometimes do the same thing. In both cases, the action is on the outer wall of the labyrinth. An increase of intracranial pressure may act similarly on the inner wall, interfering with the escape of the labyrinth fluids, and so producing "choking" and the same train of symptoms.

(b) *From within the labyrinth* Factors operating from within must be of such a nature as to produce alterations in the volume of the blood or labyrinthine fluids. This is a difficult and much debated aspect of the question, and one can do no more than touch upon it here.

Alterations in blood volume must be produced by changes in caliber of the vessels. That this may be a factor of importance is suggested by the fact that quite a number of patients suffering from Meniere attacks show also evidences of vasomotor instability such as Raynaud's disease, vasomotor rhinitis, chilblains.

Hyperpiesia Patients with a high blood pressure are prone to suffer from vertigo. It is generally assumed that these attacks are due to the raised pressure, and consequently every effort is made to reduce it. In fact, their vertigo is due to the pressure being, for the time, not high enough for their needs—the reason why a hot bath will often induce an attack. Efforts to

reduce pressure in the hope of improving the vertigo do more harm than good and may be "disastrously effective" The answer in this case is a course of digitalis and ergot

Alterations in volume of the labyrinthine fluids have been investigated by Mygind and Dederding,⁵ who have produced a mass of evidence which, they claim, goes to show that, as a result of a disturbance in water metabolism, there arises an intracellular edema of the labyrinth This is held to account not only for the eighth nerve phenomena in the attacks, but for some of the associated manifestations such as the headaches, rheumatism, and cramps of which these patients often complain Recently this work has been criticised by Furstenberg,⁶ who believes that the explanation of Mygind and Dederding's results lies rather in an avidity of the cells of the labyrinth for sodium than in an intracellular edema He consequently advocates a special sodium-free diet and the administration of large doses of ammonium chloride

This work is very new and still unconfirmed, and has not as yet gained general acceptance One finds it rather difficult to understand why such a general disturbance as Mygind and Dederding's work supposes should have such purely local effects If the finding is correct, it must have a much wider bearing than simply on the question of vertigo Furstenberg has not offered any suggestion why the cells of the labyrinth in particular should display this marked taste for sodium, or in what manner it is so upsetting to them For the present, the wise man will keep an open mind, treating these suggestions as interesting hypotheses rather than proven facts until such time as some more work has been done on them

2 Central Stimulus Otologists have concentrated their attention so intently upon the peripheral stimulus and upon labyrinthine physiology and pathology that they have been rather blind to the possible importance of a central stimulus On this hypothesis those examples of Menière attacks which cannot be explained on the basis of some peripheral stimulus may be considered as owing their origin to an irritation of ganglion

or nucleus, a condition analogous to trigeminal neuralgia, to which indeed they bear a close resemblance Each condition is characterized by the suddenness of the onset with complete freedom between attacks, each may be occasioned by some peripheral stimulus, removal of which causes relief, while in each at other times no cause for the explosion may be discoverable To compare Meniere attacks with trigeminal neuralgia, to suggest that eighth nerve neuralgia might suitably describe them, is admittedly not to come any nearer to a pathological basis for their causation But it does help to produce a line of thought on treatment and to make one wonder if nerve section, which has been practiced with such success in the case of the fifth, has been given the consideration it merits in the case of the eighth

Classification

On the lines of what has been said above, a simple and suitable classification seems to be the following

I Attacks caused by a peripheral stimulus

- (a) Local factor from without (Eustachian obstruction, increased intracranial pressure)
- (b) General factor from within (changes in blood volume, changes in fluid volume)

II Attacks caused by a central stimulus

Nature of stimulus unknown (*cf* trigeminal neuralgia)

Clinical

Patients are seldom seen actually in the course of an attack, so that one is usually forced to rely upon the history and upon what can be found in the way of physical signs between attacks

The history is straightforward more often than not, of a sudden attack of dizziness which has been repeated a certain number of times, and the usual accompaniments of staggering to some support, nausea or vomiting and more or less rapid recovery But occasionally a sufferer from Menière's disease will complain of bilious attacks and this complaint from a person with diminished hearing should always arouse suspicion of a labyrinth storm Unfortunately the hearing is not always very markedly impaired and the patient omits to mention it, while the doctor does not think of asking, so that

the description of attacks of nausea and vomiting, accompanied often by diarrhea, may be very misleading. It has even misled to the extent of a laparotomy. Apart from this, it is well to inquire as to direction of rotation of objects and of falling. It is seldom that a patient can be precise about this point, but definite information if obtainable, may help to lateralize the active labyrinth.

Examination. Other causes of vertigo having been excluded, and the usual sources of "focal sepsis" inspected (with such stress laid on any positive findings as experience dictates, for undoubtedly this question of focal infections has been very much overdone), attention will be turned to the ears.

Between attacks, the signs are few. There is usually a definite abnormality in the appearance of one drumhead, indrawing being the usual finding, and tubal stenoses are frequent. Examination of the hearing gives very variable results and sometimes the results of tests are contradictory. Perhaps it is most common to find a certain degree of loss at each end of the scale, more marked at the top. Bone conduction may be considerably diminished. Examination of the labyrinth seldom gives any information of great value. Spontaneous manifestations are unusual, although occasionally there is a little unsteadiness or some difficulty in walking in a straight line. The most constant finding, however, is some diminution of excitability to caloric tests of one or other labyrinth. Bal-denweck⁷ says that this hypoexcitability varies from day to day and may even change from one labyrinth to the other, a point of some importance in treatment.

During an attack, examination is seldom possible in any detailed way. The patient prefers to lie in a darkened room on his side, usually the affected one, and often wishes to hold on to some support. He may state that the world is going round, or merely that his head is swimming or the bed rocking. It is probable that the rotary type of vertigo indicates a stimulus arising in the semicircular canals, other varieties arising in the otolith apparatus. Nystagmus is often present, sometimes to both sides.

In sum, it may be said that neither during nor between attacks is it possible in most cases to obtain very much informa-

tion. Moreover, what we do obtain often appears conflicting, probably because we have not yet learned enough to sort it out correctly.

Treatment

The first step, as it is frequently the last, is to procure the patency of the Eustachian tubes. The next is to maintain it. In our running after the strange gods of water metabolism and vasomotor disturbances, we must not forget that a large proportion of all cases are due simply and solely to a unilateral Eustachian obstruction, the cure of which will cure the dizziness. *Eustachian catheterization*, therefore, is our sheet anchor, and not until it has been tried and failed, or been proven not to be the cause of the symptoms, should it be abandoned. As long as it improves symptoms, even if only temporarily, it should be persevered in, and with a perseverance involving patient, surgeon, catheter, bougie, over weeks and months, before being given up. One comes across patient after patient who has had three or four catheterizations and then been given up as a bad job, to wind his vertiginous way through life with nothing more than the doubtful consolation of luminal. I have been able to put many such on a stable basis by energetic and persevering treatment of their Eustachian tubes. They need encouragement at first if they are to keep at treatment sometimes for several months, but as their attacks become less frequent and less severe, their headaches disappear and their world becomes steadier, the difficulty is not to drag them to the chair but to persuade them that they need no more.

In one's preoccupation with the Eustachian tube, however, one must not forget to treat the cause of the obstruction if it can be found. It may be that a postnasal catarrh must be treated, it may be a low-lying septal spur which is interfering with ventilation, it may be an infected nasal sinus. These matters are self-evident. But with it all, the underlying principle is to get the tubes equally patent and maintain them so. Only when we fail to accomplish that by ordinary means are we justified in adopting means more exacting. Thus, once in a while, one meets with a case who is immediately

improved by Eustachian inflation, but in whom the patency of the tube cannot be maintained. Under such circumstances, the establishment of middle ear ventilation by a Kuster's or Heath's operation has proven successful.

Drugs are not to be relied upon. I have found the greatest benefit to come from luminal as a general sedative. It diminishes the severity of attacks and is a great help to these people, who are often very jumpy. Small wonder that they are when they cannot cross a street or drive a car in safety, or go to a party with any assurance that they will not vomit in the middle of it. The wonder is, not that so many are "nervous wrecks," as they so often say, but that all are not. Another useful drug is chloretone or butyl chloral hydrate, the basis of most seasick remedies. If the patient has any warning of an attack, this drug will sometimes abort it. Pilocarpine in quite small doses by mouth I have found to help some people. Bulbocapnine has been much vaunted of recent years on account of its alleged selective action on the vestibular nerve. My experience of it is very limited, but it seems no more satisfactory than many others, and more expensive.

Diet

As the result of their experiments, Mygind and Dederding⁵ recommend a salt-free diet with limited water intake, and claim to have obtained good results from it. Furstenberg⁶ has worked out, on the basis of his sodium metabolism hypothesis, a complicated diet which must be cooked without salt, and administers with it large doses of ammonium chloride. He appears to have obtained truly amazing successes. But these dietetic measures have their drawbacks. So often patients will not take the trouble to stick to them, or say they find them too unpalatable, or else they are so difficult of accomplishment as to be beyond the capabilities of many. Furthermore they are by no means infallible. Although Furstenberg's diet, in the hands of its originator and of some others, has been highly successful, I personally have not achieved any great success with it, and other otologists to whom I have spoken have been similarly disappointed. I have known a patient to have the worst

attack in his life while on a strict Furstenberg's regime in hospital. So I remain unconvinced that an alteration in sodium metabolism is the answer to our problem.

Hypertonic solutions would appear to be a more rational method of therapy than complicated diet restrictions where the cause may be an edema of the labyrinth, and particularly if the edema, or choked labyrinth, is associated with any actual rise in intracranial pressure. I have had as yet no personal experience of this line of treatment, but I am told by Dr. Foster Kennedy (personal communication) that he has had considerable success with it in the last few years, particularly in difficult cases where other methods have failed.

Operative Methods

It has been said of this condition, that not until we operate is the patient's life in danger. I disagree. Unless we control the attacks, his life is in danger every time he leaves his house. Apart from danger, I have known patients whose lives were a misery to themselves and to others from their fear of these thunderbolt attacks. I believe that in all severe and intractable cases it is absolutely justifiable to advise operation. The question is, what operation?

I have already mentioned a Kuster operation in cases of intractable Eustachian obstruction. Several other operations have been suggested from time to time. The formation of a fistula in the external semicircular canal has been tried by several surgeons (Lake, Jenkins, Mollison). The operation is not always as easy as it sounds, the canal not being so readily identified in a normal mastoid as after suppuration has destroyed the cancellous bone. Moreover the results, while brilliant at first, are often only temporary. Inferior vestibulotomy carries too great a possibility of infection from the tympanum, and Mollison's method of injecting alcohol into the external canal involves the risk of a facial paralysis. Such operations as a cerebellar decompression (Barany) or incision of the saccus endolymphaticus (Portmann) may be well enough if the underlying pathology is certain and the operation applicable, but they are scarcely to be done on speculation. There is one operative procedure, how-

ever, to which these objections do not apply. Division of the eighth nerve in the posterior fossa, though it may sound a formidable undertaking, in the hands of one accustomed to intracranial surgery carries with it no more risk than is inseparable from any operation. A number of successful cases have been published by Dandy,⁸ Coleman,⁹ and Cairns.¹⁰ An improvement on complete division of the nerve has recently been worked out by McKenzie¹¹ of Toronto, who has described a method of dividing the vestibular portion only, on the principle of selective section of the fifth nerve in trigeminal neuralgia. His results have been excellent. Not only has he obtained complete freedom from attacks with an insensitive vestibule, but in most cases hearing has been improved and tinnitus diminished.

There are two further advantages to this operation which McKenzie does not point out.

1 It is unimportant upon which side the operation is done from the point of view of relief from vertigo, for division of the vestibular nerve blocks all impulses from one side. As there is now only one functioning labyrinth there can be no imbalance. The difficulty of deciding which is

the offending side is overcome, and that side can be chosen on which hearing is most diminished in case of accidental injury of the auditory portion of the nerve.

2 Should there be a mistake in diagnosis and some lesion in the posterior fossa, it will be found and can be dealt with.

I believe this to be at present our method of choice in those severe cases in which less drastic methods have failed. McKenzie has obtained unfailingly good results in a four years experience, and although my own experience of the operation comprises only three cases, all recently treated, I can, in so far as such a small number goes, confirm his successes. But in saying this, I would not have it thought that I believe the last word has now been said. Nerve section, the deliberate destruction in perpetuity of a nervous pathway in order to relieve a symptom whose causation we do not understand, offends pathological sensibilities. At best it is but a "pis aller," a means of terminating an intolerable situation until such time as a more rational means can be found. For the moment it is a satisfactory expedient.

570 PARK AVE.

References

- 1 Bárány, R. *Proc. 17th Internat. Cong. Med.*, 14 571, 1913.
- 2 Jenkins, G. J. *J. Laryng.* 41 781, 1926.
- 3 Fraser, F. J. and Tweedie, A. R. *Ibid.*, 42 809, 1927.
- 4 Scott, S. R. *Ibid.* 44 460, 1929.
- 5 Mygind, S. H. and Dederding, D. *Acta Laryngologica*, Supps. x and xi, 1929.
- 6 Frnstenberg, A. C. *Ann. Otol. Rhin. and Laryng.* 43 1035, 1934.
- 7 Baldenweck, L. *Leçons sur l'Exploration de l'Appareil Vestibulaire*. Paris p. 302, 1928.
- 8 Dandy, W. E. *Arch. Surg.* 16 1127, 1928.
- 9 Coleman, C. C. and Lyster, R. *Arch. Neurol. and Psych.* 29 522, 1933.
- 10 Cairns, H. and Brain, R. *Lancet*, 1 946, 1933.
- 11 McKenzie, K. G. *Can. Med. Ass. Jour.*, 34 369, 1936.

NINETEEN YEARS' SURVIVAL AFTER LARYNGECTOMY FOR ADVANCED CANCER

An interesting report is sent in to *The British Medical Journal* by Robert H. Woods, a Dublin surgeon. He writes:

In May 1917, a man aged fifty-one was sent to me by Dr. Sandford of Cork suffering from carcinoma involving the base of the tongue, side walls of the pharynx, and the upper portion of the larynx. The glands over both carotid sheaths were involved. I agreed with Dr. Sandford's opinion that the disease was too far advanced for operation to afford any reasonable chance of success. The patient, however, implored me to try, and I with some reluctance consented. I performed a total laryngectomy

and made a dissection of the glands at one operation. He made an excellent recovery and remained perfectly well, leading a very active life, for sixteen years and a half. He then, in November 1933, developed a recurrence immediately above the tracheal opening in the neck. This broke down, and a fistula formed through which fluids leaked during swallowing. Radium and deep x-rays were applied, the tumour disappeared, and the fistula closed. Two years later, in December 1935, he got another recurrence under the right sterno-mastoid, on which treatment had no effect, and he died recently, nineteen years and a half after the first operation.

HYPERTHYROIDISM IN CHILDREN

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Exophthalmic goiter presents the same basic symptoms regardless of the age at which it appears. The effect of hyperactivity of the thyroid gland in children, however, produces more pronounced symptoms because of the greater emotional instability of these young patients. Likewise in children, the growth stimulus appears to bring about a more rapid progress of the disease. Hyperthyroidism in children is always a primary change of the thyroid gland, while in adults, hyperthyroidism with exophthalmos may also occur as a secondary manifestation of adenomatous or colloid goiters. We have not included in this communication that large and important group of patients, chiefly girls, with adolescent enlargement of the thyroid gland, some of whom may present mild symptoms of hyperthyroidism.

Exophthalmic goiter, or more correctly toxic diffuse goiter, may occur at any age, and although it is rare in the very old and the very young, we have seen patients suffering from this disease in the first and in the eighth decades of life. In children under five years of age the condition is so rare that each case is of unusual interest, and because of the urgent need for early diagnosis and adequate treatment, this very young group is of especial importance. Former inexperience in dealing with this problem in these very young patients has now been largely overcome, but we desire to correct some of the generally accepted views that are still retained with regard to the management of these children.

Text books of pediatrics have not kept pace with this growing experience and the advice given by these books is, therefore, far behind the present day status of our knowledge of hyperthyroidism in children. In the latest edition of one of the most widely used pediatric texts¹ is found this statement with regard to the care of

a patient with what is called the severe form of exophthalmic goiter

Surgical measures should be withheld as long as possible, particularly if the patient is near the age of puberty, at which time a readjustment of the endocrine glands may occur. It may be necessary to operate, however, if medical treatment fails and the life of the patient seems to be endangered.

Among the leaders in the field of thyroid disease, there is a well-marked unanimity of opinion that hyperthyroidism in the young is the same as that seen in the adult, and that the measures necessary for cure are identical in each age group. Further than this, and contrary to the advice given by the pediatric text books as just illustrated, it is far more dangerous to attempt to cure hyperthyroidism in the young by medical means than it is in the adult. This is true because the child retains the added factor of development that is absent in the adult. Thus, just as hypothyroidism leads to retarded development and cretinism, hyperthyroidism in the child brings about a more rapid development, which, unfortunately, affects some parts of the body more than it does others. There is a marked increase in the rate of development of the skeletal system that is accomplished at the expense of other parts of the body, notably the soft tissues. It is, for this reason, quite common to receive from the mother the comment that the child has suddenly grown taller.

The markedly increased metabolism stimulates the skeletal growth to advance beyond the age in years and at the same time this increased metabolic need deprives the body of all of its available energy. The child becomes thin, the weight may remain stationary or be actually reduced in the presence of a good or increased food intake. To provide for the proper distribution of the increased

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Fig 1 X-ray of chest in 1931 (Case 1) showing markedly enlarged heart



Fig 2 X-ray of chest in 1936 (Case 1) Heart within normal limits as to size, with regard age of patient.

amount of food material demanded by this elevated metabolic level, the heart must increase its per minute outflow and in due time the heart itself will respond to increased work with an increase in size. These observations are well-illustrated in the following patient who has been the subject of two^{2,3} previous communications, but who is here reviewed five years after her first operation

CASE 1 J S, aged eight, was first admitted to the Albany Hospital at the age of two years and nine months because of typical exophthalmic goiter which was corrected by operation. The second admission was

made necessary by a recurrence of her symptoms and goiter, over one year after the initial operation. Since this second thyroidectomy, the patient has remained well with no symptoms suggesting the return of her hyperthyroidism. She has had measles and whooping cough without complication, and she has also had her tonsils removed without difficulty. The exophthalmos present at her first admission has improved, but it has done so unequally, so that now the right eye is more prominent than the left.

From the history of the patient we are able to say that the disease had its onset before the age of one. When she was first seen in February 1931, nearly a year after the onset, her heart was found to be greatly enlarged, and on x-ray examination, measured in its greatest transverse diameter, 8.5 cm, and 4.5 cm across the great vessels (Fig 1). At the level of the diaphragm, the chest measured eleven cm across. In August 1936, at the age of eight, the heart still measured 8.5 cm in its greatest transverse diameter and 4.5 cm across the great vessels (Fig 2). The chest at the level of the diaphragm now measures 21 cm. across. It is fortunate for this patient that removal of the increased metabolic load has enabled her heart to return to and remain within normal limits.

It was not until 1933 that the skeletal system of this patient was investigated by the Roentgen ray. The report of x-rays of the wrists (Fig 3), taken in June 1933, revealed the osseous system to be developed to correspond with that of a nine year old child, yet the patient's actual age at that time was four years. In August of this year, [1936] the skeletal growth was found on x-ray examination, to correspond with that of a twelve year old child (Fig 4).

In this patient the disease had been present for a long time, nearly two years, before surgical intervention prevented further harm. There had been ample time for these changes of increased metabolism to take place and to progress. A second child received surgical treatment before "the life of the patient seemed to be endangered" and as a result no permanent developmental changes had occurred.

CASE 2 B G, aged four years and four months, was admitted to the Albany Hospital in June 1936. The history was taken from her mother, who stated that the child had always been of a "nervous type." In the Fall of 1935 the child began to lose weight, gagged easily and had a poor appetite. Because the tonsils and adenoids were en-

larged they were removed in January 1936 with the hope that this operation would relieve her distress. Following the operation, however, the child had almost continuous colds leading to a very severe bronchitis in March. During the course of this bronchitis a rapid pulse was noted for the first time and medical treatment for hyperthyroidism was instituted. After the tonsillectomy there was a rapid increase in height but no weight gain, after the treatment for hyperthyroidism was begun, the child gained three pounds in weight but the symptoms of nervousness, irritability, and weakness continued.

The child was born at full term in a normal delivery. She had whooping cough at the age of two months and chicken-pox when she was two years old. One grandmother had suffered from a goiter.

On examination the child was observed to be a tall thin girl, lying restlessly in her bed. The skin was warm and moist without unusual pigmentation. The eyes showed obvious exophthalmos with a definite stare and lid-lag. A few small, nontender, cervical lymph nodes were palpable. The thyroid gland was diffusely enlarged, each lateral lobe measuring about $4 \times 2 \times 2$ cm. The lobes had the characteristic consistency of a hyperplastic gland, hardened by iodine administration. The lungs were clear and resonant throughout without demonstrable rales. The heart was not enlarged and presented no murmurs. The extended fingers and protruded tongue showed a fine tremor.

Examination of the blood and urine failed to reveal any significant change from normal values. The Wassermann test was negative. On June 25 the basal metabolic rate based on weight by the Benedict Talbot method was plus 122.2 percent, the rate based on the height after the Benedict method was plus 87.5 percent. The following day, the values obtained for the two methods were plus 108.3 percent and plus 83.4 percent.

X-ray examination of the skeletal system showed normal development (Fig 5). Roentgenological examination of the chest, however, disclosed generally accentuated lung markings, with discrete calcifications in the parenchyma of the right lung just above the hilum and enlargement of the hilum nodes on either side. The changes were reported as being consistent with a childhood type of tuberculosis.

After prolonged preparation with compound solution of iodine, bed rest, high caloric diet, fresh air, and sunshine, the surgical attack upon her disease was planned. Ordinarily these preoperative measures will permit a one-stage operation but in

this patient several factors made it necessary to abandon this type of operation. While in the hospital the child failed to gain weight in spite of every measure. The pulse rate was 140 on admission where it remained for over one week when it dropped to 130 after which it varied between 110 and 130. There was a daily rise in temperature to 100° F, indicating activity within the lung.



Fig 3 X-ray of wrists in 1933 (Case 1) Development corresponds with that of nine year old child, yet patient is actually four

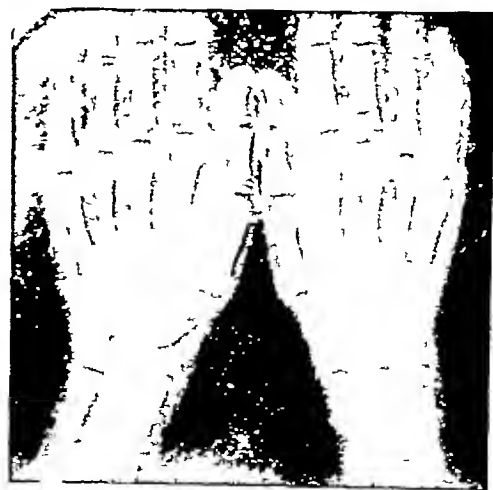


Fig 4 X-ray of wrists in 1936 (Case 1) Development corresponds with that of twelve year old child

In view of these findings, then, it was felt that a two-stage operation was imperative in this instance and accordingly the right lobe was removed on July 9 and the left lobe on July 21.

The postoperative course was stormy at first. The pulse rose to 200 after the first lobectomy and to 160 after the second. After the immediate reaction of the second operation was past the pulse remained between 80 and 100.

The temperature rose to 103° F after the first lobectomy and to 102° F after removal of the second lobe. The last three days in hospital the temperature of this patient was never above normal.

The pathologist reported extremely marked, diffuse hyperplasia of the thyroid gland.

This patient has gained weight and now weighs 45.5 pounds as compared with the thirty-five pounds she weighed on admission to the hospital. During the past week the child has had a very poor appetite. X-ray studies of the chest on October 1, revealed a slight degree of parenchymal infiltration toward the base of the right lung with enlargement of the hilar nodes on both sides, suggesting tuberculosis. Compared to the films of July 5, there has been no definite change. This disease in the lungs is now being adequately treated medically, and with the hyperthyroidism removed, should respond quickly.

Discussion

The age of puberty, variously taken as from twelve to fifteen years by different authors, is the upper age limit used in discussing hyperthyroidism in children. In this age group the incidence of toxic diffuse, or exophthalmic goiter, in relation to all age groups is given by Helmholtz⁴ as 0.87 per cent, by Rankin and Priestley⁵ as 0.6 per cent, and by others up to as high as two per cent. It seems probable that the true incidence of hyperthyroidism in children is less than one per cent of all cases of toxic diffuse goiter. The frequency of the occurrence of this disease increases as the age approaches puberty.

The female is far more commonly affected than is the male. Rankin and Priestley⁵ report that ninety per cent of their cases were female, Green and Mora,⁶ eighty-four per cent, and Helmholtz⁴ records that 86.6 per cent of his cases were girls. Jones⁷ quotes Cowden as

being unable to find, in the literature, a case in a male under ten years of age. In our own series of over 3,000 patients with all types of goiter, we have observed only eight instances of the disease, all in girls before the beginning of the menstrual epoch. The ages of these patients were two years nine months, four years four months, nine years, eleven years, thirteen years, and three cases at twelve years of age.

Frequent mention is made of preceding infections as a predisposing cause of hyperthyroidism in children. Abbott⁸ found a high incidence of onset after acute in-

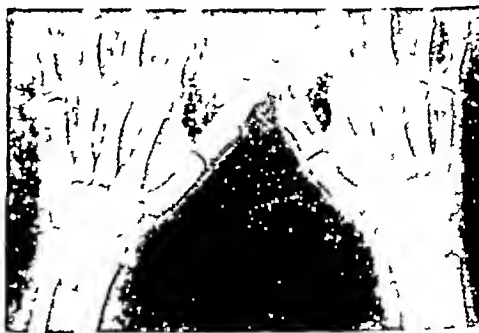


Fig 5 X-ray of wrists in 1936 (Case 2). Development here is within normal limits for child of four years. Compare with Fig 3.

fectious diseases. Dinsmore⁹ and Rankin and Priestley⁵ also record the onset of the disease after an acute infection, the latter two authors note this fact in fifteen per cent of their cases. Alberts¹⁰ not only found infections as an exciting factor but also observed the onset of the disease after extreme emotional disturbances. In our two cases, one (Case 1) did not have any antecedent infection while Case 2 did have.

The symptoms and findings of hyperthyroidism in children are identical with those observed in adults. Bloom¹¹ has listed the frequency of the occurrence of symptoms as recorded by several authors from a total of 144 cases and these findings are averaged in Table I. Although weakness is only present in about two-thirds of the cases it is of diagnostic importance when present in the quadriceps muscle group.

The classical symptoms and findings of this entity are so well-known that repeti-

HYPERTHYROIDISM IN CHILDREN

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tion of them outside of the table seems unjustified. A thoughtfully taken history coupled with a careful examination of the patient will reveal sufficient evidence upon which to make a diagnosis.

The establishment of this diagnosis should be no more difficult than for an adult. It is of importance, however, that it be made early if the child is to be saved from unnecessary suffering and actual physical damage. To this end there must be excluded in the differential diagnosis, that group of patients that have been designated, for want of a better term, as 'functional'.

TABLE I.—FREQUENCY OF OCCURRENCE (%) OF SYMPTOMS IN CHILDREN, AVERAGED FROM REPORTS OF THREE AUTHORS

	(%)
Tachycardia	98.75
Nervousness	94.75
Thyroid enlargement	92.00
Weight loss	67.50
Weakness	64.50
Exophthalmos	61.50
Bruit	58.66
Tremor	56.00
Gastrointestinal disturbances	48.30
Polyphagia	40.00

In adult years this group of patients has been given many different names but it is most commonly known as cardiovascular neurosis. The counterpart of this type in children is found in the tall, thin, "nervous type" of girl, from eight to fifteen years of age. Although these patients have an increased pulse rate and increased pulse pressure, Doege¹² points out that the average for the group is lower than are these rates in patients with true hyperthyroidism. The pulse rate, moreover, is variable and fluctuates over a wide range. Bed rest usually causes a prompt decline to normal within a very short time, associated with variations due to such minor exertions as sitting up in bed. In exophthalmic goiter, on the other hand, the pulse rate is high even during sleep, and this characteristic is of diagnostic significance in children just as it is in adults.

There may be a slight staring expression of the eyes in these young patients with functional disturbances, but retraction of the upper lid is not found. The hands may be moist but they are objectively and subjectively cold as com-

pared to the uniformly warm, moist hand of hyperthyroidism. The appetite is usually poor or perverted in the functional group, the polyphagia of hyperthyroidism is striking for its absence. The thyroid gland may be slightly enlarged but it imparts a soft, pulpy feeling as contrasted with the meaty firmness of exophthalmic goiter. Seed and Poncher¹³ have pointed out that the height of these patients is above the average for the age level.

Just as there is need for prolonged study of this group of so-called functional patients in the adult, likewise, in children careful observation may be necessary to ascertain the true diagnosis. In this group, undoubtedly, belong many cases that have been erroneously diagnosed as hyperthyroidism and reported as cured by medical management.

Other diseases that must be kept in mind when confronted with a diagnostic problem are tuberculosis, chorea, and rheumatic heart disease. We repeat, a carefully taken history, a thorough physical examination, prolonged study, and the thoughtful use of laboratory aids, will solve the most difficult of diagnostic problems. The determination of the metabolic rate as an aid to diagnosis, even in the adult is a procedure in which there are many opportunities for error. It is almost impossible to obtain an accurate test in children and we feel reliance on the determination of the metabolic rate as a diagnostic measure is more dangerous than in the adult.

When the diagnosis of exophthalmic goiter is established, it is imperative that the child have an opportunity to benefit from surgical treatment. Although many types of treatment have been used in an attempt to cure this disease, there has yet to be introduced a method in which the mortality rate is as low and the end results as satisfactory as those obtained by operation. In the literature of the last ten years is found a growing number of authors who advise operative intervention early in the course of the disease. Jackson¹⁴ says early surgery is necessary, Cattell¹⁵ goes farther to say that medical treatment will not cure and that x-ray treatment is not so satisfactory as surgery, Morse¹⁶ feels that drugs are as useless as they are in adults. Rankin

and Priestly⁵ feel that no form of medical treatment gives sufficiently permanent results to eliminate the need for ultimate operative interference. It is, therefore, no longer necessary to admit inexperience with the problem, surgery is uniformly advised by those who have the largest understanding of the problem of hyperthyroidism in children.

The abuse of iodine has been one of the greatest mistakes made in the treatment of hyperthyroidism in all age groups. It has been repeatedly shown that the maximum benefit is obtained from this drug in from ten to fourteen days and that thereafter the same improvement can never be so satisfactorily obtained again. It does far greater harm to any patient with exophthalmic goiter to prescribe iodine than it does to do nothing for such an individual. Both McGee¹⁷ and Newman¹⁸ have emphasized the importance of being prepared to operate once iodine therapy is started. We feel that the drug may be used in very small doses as a therapeutic aid in making the diagnosis clear, but if exophthalmic goiter can be said to be present, we do not prescribe iodine in any form except as a part of the preoperative management of the patient.

The technic of thyroidectomy as done upon these youthful patients has been changed as a result of increasing experience with the problem of hyperthyroidism in children. It is well-agreed that iodine has reduced the dangers of the operation and for the most part has eliminated the need for multiple stage operations. It was formerly believed that the growing needs of the child required that slightly

more thyroid tissue be left *in situ* than was the custom in adults. In a previously reported review of this phase of the problem it was stated that "experience may teach us that the thyroid gland may regenerate more rapidly in the young," and our own experiences have proven this to be correct. Alberts¹⁰ asserts that it is difficult to be too radical in the removal of the thyroid gland in children because of its inherent tendency to hypertrophy and we are in agreement with him. It is now our custom to remove as much if not more thyroid tissue from the young patient than from the adult patient suffering from exophthalmic goiter. The recurrence that required a second operation in Case 1 exemplifies our present attitude.

Summary

1 Two cases of exophthalmic goiter occurring in children under five years of age are reported, one is a review five years after the initial operation.

2 It is now agreed that early diagnosis and early surgical intervention are imperative if detrimental physical changes are to be prevented. The inadequate treatment of this subject by the text books on pediatrics is pointed out and the results of delayed operation illustrated.

3 We believe that it is necessary to remove slightly more tissue from the thyroid gland of the young patient than is the custom in the adult patient. This is not in agreement with most of the opinions expressed in the literature today.

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References

- Holt, L. E., Jr and McIntosh, R. *Holt's Diseases of Infancy and Childhood*, 10th Ed., pp 593-595, D Appleton Century Co, New York, 1933
- Beilby, G. E., and Carlton, J. G. *New York State J Med*, 31 1329, 1931
- Beilby, G. E. *Tr American Assoc Study Goiter* p 255, 1933
- Helmholtz, H. F. *J.A.M.A.*, 87 157, 1926
- Rankin, F. W., and Priestly, J. T. *West J Surg*, 40 498, 1932
- Greene, E. I., and Mora J. M. *Surg Gynec and Obst*, 53 375, 1931
- Jones, C. K. *J.A.M.A.* 103 914, 1934
- Abbott, A. C. *Internat Clin*, 4 98, 1932
- Dinsmore, R. S. *J.A.M.A.*, 99 636, 1932
- Alberts, M. W. *Minnesota Med* 13 175, 1930
- Bloom, C. J. *South M J* 28 1123, 1935
- Doegge, K. H. *Wisconsin M J*, 34 627, 1935
- Seed L., and Poncher H. G. *Illinois M J*, 63 61, 1933
- Jackson, A. S. *Journal Lancet* 53 635 1933
- Cattell, R. B. *New England J Med*, 209 867, 1933
- Morse, J. L. *Clinical Pediatrics*, p 774, W B Saunders Company, Phila., 1926
- McGee, W. A. *Virginia M Monthly*, 58 230, 1931
- Newman, H. *Kentucky M J* 28 6, 1930
- Lehman, J. A. *Western J Surg* 44 528 1936

CLINICAL EXPERIENCE WITH COLLOIDAL SULPHUR

In Treating Mixed and Hypertrophic Arthritis

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Recently, a number of authors have reported clinical and laboratory results in chronic arthritis with the use of colloidal sulphur by injection. Discounting the natural enthusiasm which unconsciously creeps into clinical interpretation of results obtained, the results reported have been such as to merit consideration from every one treating chronic arthritis.

It was the author's privilege to have personally observed the clinical course of a majority of the 892 cases recently reported by Wheelton¹ after treatment with colloidal sulphur. From this observation two personal conclusions were drawn. *First*, that the most satisfactory results were obtained in the cases of hypertrophic or mixed arthritis, *second*, that other things being equal, those cases of hypertrophic or mixed arthritis receiving the larger doses of colloidal sulphur showed the best results. With these conclusions in mind, and being convinced of the relatively low toxicity of the material,² twenty private patients suffering from hypertrophic or mixed arthritis were treated with relatively large doses of colloidal sulphur by intravenous injection.

The material used was an aqueous solution of colloidal sulphur, marketed as Sulisocol, each c.c. containing ten milligrams of colloidal sulphur. The following details of the technic used bear repeating.

The material was warmed to body temperature and was given with the patient recumbent and relaxed, the injection rate was approximately one c.c. per thirty seconds, the patient remained recumbent for approximately five minutes following the completion of the injection, injections were made with a 25 gauge hypodermic needle.

There were no reactions such as fever, nausea, loss of appetite, etc., noted in any of the twenty cases here reported. It is the author's opinion that the technic just described is perhaps responsible for the freedom from reaction noted. A majority of the patients had had previous

forms of therapy either before consulting the author or prior to receiving the sulphur injections. Seventeen of the cases were ambulatory, two were cases of impacted fracture of the neck of the femur with coincidental arthritis, and one a case of acute back strain complicating a troublesome hypertrophic arthritis of the spine. The latter three cases were treated primarily as bed patients.

The following five case histories are recorded as representative of the group.

CASE 35 Mixed arthritis, housewife, age thirty-four. Her complaint was painful knees, hips, and feet. The present illness had a sudden onset in the right shoulder in March 1935. Previous treatment consisted of removal of tonsils, extraction of one questionable tooth, heat treatments to the knees, and repeated aspirations of knees. At the start of our care, patient had twelve weekly injections of 0.3 grams of neoarsphenamine intravenously, with graduated subcutaneous doses of an autogenous vaccine made from her tonsils. *Examination* Height 5' 4", weight 120 pounds, normal weight 145 pounds. Both hips, knees, ankles, and right shoulder were acutely involved. Fluid was present in both knees, and there was local tenderness in knees and right shoulder with crepitation on motion. There was a flexion deformity of about thirty degrees in each hip, fifteen degrees in each knee, and the right shoulder was adducted thirty-five degrees. There was much pain on motion of the knees, ankles, hips, and right shoulder. Patient was unable to stand without assistance, body mechanics were poor. Teeth were in fair condition, and the tonsils had been cleanly removed. Much fecal stasis present. Heart showed no gross abnormalities, pulse seventy, blood pressure 124/80. Treatment included diet regulation to correct constipation and limiting an excess of carbohydrates. Pregl's solution (10 c.c.) injected in each knee on two occasions to aid in shrinking the synovial membrane.³ Foot soaks, arch supports, foot and postural exercises were also included in the treatment. Following the course of neoarsphenamine and vaccine, the patient still had painful swelling in the knees, ankles, and right shoulder. The

patient was then given 1060 milligrams of colloidal sulphur in a period of three months. Three months after completion of the sulphur injections and without further treatment, the patient had no deformity, practically no discomfort, and gets about doing housework daily. Blood examination before and after treatment with sulphur was not particularly significant.

CASE 9 Mixed arthritis, housewife, age sixty-four. Her complaint was painful right shoulder with a duration of four months. Present illness had gradual onset without definite accident. Previous treatment consisted of nine intravenous injections of iron cacodylate, heat and massage locally. *Examination* Height 5' 6", weight 120 pounds which is normal. Patient is of the thin asthenic type. Both shoulders, knees, and ankles showed involvement with thickening of capsule of right shoulder, knees, and ankles. There was local tenderness in right shoulder and ankles, as well as some definite crepitation in the right shoulder and knees. No Heberdens nodes were present. Adduction right shoulder to forty-five degrees. General examination showed a faulty posture with some dorsal round back and with hyperextension of the spine and with some visceroptosis. Feet third degree pronated, with second degree depressed anterior arches. The teeth were in good condition, and the tonsils showed no gross evidence of infection. Intestinal tract showed considerable fecal stasis, no other foci noted. Heart was normal, lungs clear, pulse sixty, blood pressure 140/86. No abnormalities noted in blood examination. Treatment included diet regulation to correct constipation including restriction of the quantity of carbohydrates, sodium salicylate and potassium iodide in small doses, thyroid extract grains $\frac{1}{2}$ t.i.d. P.C., postural exercises, proper corset, arch supports. Moderate amount of progress under this program. Patient then given 360 milligrams of colloidal sulphur intravenously over a period of three weeks. Two months from the start of sulphur therapy there was very little limitation of motion in the right shoulder. There was less thickening of the right shoulder, knees, and ankles, and subjectively, the patient was relieved.

CASE 1 Mixed arthritis, housewife, age sixty-one. Her complaint was pain in neck, hands, back, and knees. The present illness extended over a period of about one and one half years. Other illnesses were posterior fissure, internal hemorrhoids, pneumonia, and influenza. Patient has suffered from constipation. Previous treatment consisted of salicylates and sedatives.

Examination Height 4' 9½", weight 125½ pounds, normal weight 127 pounds. There was a slight flexion deformity in the left knee. Local examination showed swelling in the left knee. Local heat and local tenderness in the left knee. Thickening of the capsule in both knees. Limitation of motion in the back. Crepitation in both knees and fingers. Heberdens nodes of the hands. Subjective pain. General examination revealed a faulty posture, feet third degree pronated. Teeth and tonsils out. Intestinal tract showed some fecal stasis, no other possible foci noted. Heart normal, lungs clear, pulse eighty-eight, blood pressure 120/80. Basal metabolism rate June 29, 1935 was plus sixteen per cent. On April 9, 1936 r.b.c. was 4,540,000, w.b.c. 7,000, eos two per cent, lymph twenty-seven per cent, monos three per cent, Sedimentation rate 0.70 mm/min. From October 11, 1935 to March 5, 1936, patient received 780 milligrams and from June 18 to July 30, 1936, received 220 milligrams of an aqueous solution of colloidal sulphur.

On June 4, 1936, the left knee was injected with Pregl's solution to assist in shrinking the synovial membrane. The progress has been very satisfactory. Flexion deformity of the left knee corrected, no local heat in any joints, less thickening of joint capsules, less crepitation in knees. Subjectively, quite comfortable without further treatment.

CASE 65 Hypertrophic arthritis, machinist, age thirty-seven. His complaint was low back pain in the left sacroiliac region. Patient has had some backache since an attack of "flu" three years ago, but has never had to stop work. Patient also had sinusitis two weeks ago. He has had frequent colds, but no previous joint symptoms. Previous treatment consisted of drainage of sinuses two weeks ago, but no treatment was given for arthritis. *Examination* Height 5' 10", weight 187 pounds, normal weight 175 pounds. The lumbar spine and left sacroiliac were involved. No deformity. No swelling and no local heat. No thickening of the capsule. Local tenderness over the sacroiliac joint left, confirmed by rectal examination. Limitation of motion in the lumbar spine on bending forward. No crepitation. No Heberdens nodes. Subjective pain on bending or lifting. General examination showed a faulty posture with dorsal round back and some hyperextension of the spine. Slight total left scoliosis, prostate not enlarged, feet badly pronated. Teeth show signs of pyorrhea. Tonsils out. Some fecal stasis. Heart normal, lungs clear, pulse seventy-two. X-ray showed hypertrophic arthritis of the spine. Treatment

consisted of seven doses of iron cacodylate, vitamin D gtt XX b.i.d., regulation of diet restricting carbohydrates, an elimination day program, sodium salicylate and potassium iodide in small doses. The cystine sulphur showed 98 per cent at end of this time. Patient then received a total of 420 milligrams of an aqueous solution of colloidal sulphur over a period of five weeks. The spine has remained free of muscle spasm in motion, range of motion complete, subjectively relieved, no deformity and is able to lift heavy weight without pain.

CASE 37 Mixed arthritis, housewife, age fifty-six. Her complaint was pain in right knee and joints of left hand. Present illness is a gradual onset for nine years with remissions, the last being March 1935. Symptoms present for past ten months. Has skipped heart beats at times, no other particular illness. Patient noted that joints are worse when constipated. Previous treatment consisted of osteopathic treatment, vaccine treatment, and combination arch supports. Examination: Height 5' 3" weight 154 pounds, normal weight 150 pounds. Patient is a short stocky type of person. Both knees and hands were involved. Swelling of the right knee, left knee, local heat of the right knee. Thickening of the capsule of the right and left knee, interphalangeal joints of the hands. Local tenderness of the right knee. Limitation of motion of the right knee, unable to extend beyond position of deformity (15 degrees flexion). Crepitation of both knees. Heberdens nodes of the fifth finger left. Subjective pain on motion of the right knee. General examination showed a faulty posture, feet badly pronated, abdomen prominent. Teeth all removed. Tonsils out. Some fecal stasis, no other possible foci noted. Heart examination revealed soft systolic murmurs with some skipped beats, pulse seventy. X-ray of the right knee showed hypertrophic arthritis. Treatment consisted of (1) An injection of the right knee with Pregl's solution. (2) An elimination day program. (3) A diet restricting carbohydrates. (4) Sodium salicylate and potassium iodide in mild doses. (5) Combination arch supports. (6) Thyroid grains $\frac{1}{2}$ t.i.d. P.C. There had been a moderate amount of improvement. Patient then received 660 milligrams of an aqueous solution of colloidal sulphur over a period of one month. February 29, 1936, less local heat of the knee, still considerable thickening, the left ankle still puffy and thick. Subjectively feeling better. On September 5, patient was examined again without further sulphur or other therapy. The right knee

was much less thickened. There was a flexion deformity of less than five degrees remaining. Local heat and tenderness practically gone. Subjectively quite comfortable. She does housework and climbs stairs without difficulty.

Of the twenty cases reported, the average age was fifty-three years. The average total dosage has been 600 milligrams, smallest total dosage 360 milligrams, highest total dosage 1060 milligrams. The average dose per week of treatment was 126 milligrams—one patient receiving as high as 235 milligrams per week for two weeks without reactions.

Results were classified as subjective and objective. The objective results took into consideration the following factors: swelling, muscle spasm, thickening of joint capsule (if palpable), local temperature changes, tenderness, active and passive motion, and degree of deformity. The subjective results rested with the patient's opinion as to relative pain, stiffness, and general well-being before and after treatment. In this small group of twenty particularly selected cases, all showed definite objective improvement. One case, showed very marked objective improvement in the way of freedom of motion and disappearance of muscle spasm in her back, following treatment, but continued to have subjective complaints of severe back aches. Narcotic addiction is felt to have played some part in this particular case but we have classified this case as unimproved. Two other cases admitted but slight subjective improvement, one having hypertrophic arthritis of the spine being able to return to work as a foundry foreman, however, the second, a woman of seventy-five admits she has less pain in her knee than before sulphur treatment, but still complains of some stiffness.

It is to be noted that (1) each patient had a careful investigation as to foci of infection, (2) without exception, there was noted definite delayed elimination from the bowel, for which correction was attempted by means of diet, mineral oil, agar emulsions, dosage with brewers yeast, and where practical, with abdominal exercises and abdominal massage, (3) correction of faulty body mechanics was carried out as fully as possible, (4) diet was regulated to avoid an excess of

carbohydrates, (5) early in the period of injections, the patient received mild doses of sodium salicylate and potassium iodide—this was not continued after stopping the injections, (6) the usual individual dose of colloidal sulphur was sixty milligrams at two to three day intervals, (7) laboratory examinations of blood and for cystine sulphur content of the nails were not complete enough to be conclusive

Summary

1 Twenty especially selected cases of mixed and hypertrophic arthritis, having an average age of fifty-three years, have received relatively large doses of colloidal sulphur (Sulisocol) by the intravenous method, in conjunction with other general health measures

2 All the cases were objectively improved, as judged by subsidence of swelling, relief of muscle spasm, decrease of thickening of joint capsule (where pal-

pable), disappearance of any increased local temperature, decrease in tenderness, increase in, or return to normal range of motion, decrease in deformity

3 One case admitted no subjective improvement Two cases admitted but slight subjective improvement

Conclusions

1 The use of relatively large doses of colloidal sulphur (Sulisocol) in twenty selected cases of mixed and hypertrophic arthritis has proved a valuable adjunct in treatment

2 No reactions were noted in any of the cases observed

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References

- 1 Wheeldon, Thomas *Jour Bone and Joint Surg.* 17 693 1935
- 2 Wheeldon, T F and Main, R J *Ibid* 15 94, 1933
- 3 Thomson J E M *Ibid* 15 483 1933

RADIOACTIVE SALT AS A REMEDY

Common salt, rendered radioactive, can be used for cancer and other diseases in human being, reports Gobind Behari Lal, Universal Service Science Editor in the New York *American*

Experiments were made on two men at the University of California Medical School by Drs Joseph G Hamilton and Robert S Stone

It was found no harmful effects whatever were produced by injecting solutions of radio-sodium into the veins of the two men

Sodium, a metal, is present in common table salt It was made radioactive when subjected to neutron rays produced by the cyclotron machine invented by Dr E O Lawrence, at Berkeley, Calif

Whether it is pure sodium or in the form of common table salt, under neutron treatment it begins to act like radium itself Such radio sodium, or radio-common salt, gives out rays like those of radium

Hence radio sodium can be used for giving radium therapy In fact, it is declared far better

While the real radium substances, taken internally, usually cause fatal poisoning, and sometimes cancer, the radio-sodium prepared

by the California scientists is safe

Drs Hamilton and Stone say that real radium keeps on exploding within the body for many years, while the radio sodium used in these tests quiets down to half its original activity in fourteen or fifteen hours

No permanent exploding or radio particles are left in the body long enough to cause fatal sickness

The brilliant part of the work was to observe exactly how the injected radio sodium solution moved about inside the body It was thus seen how long sodium molecules stay in the tissues, when they are eliminated, and how soon the radio activity diminishes

All these facts were essential before a truly scientific, safe and effective remedy could be found in internal use of radioactive substance

Sodium, eaten daily as common salt, is one of the most important minerals in body activity Many diseases are due to disturbance of sodium or potassium balance

Instruments such as various types of electrosopes placed close to the human body can detect the presence of radio sodium or any such material

STREPTOCOCCUS MENINGITIS

Report of Two Recoveries

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Streptococcus meningitis is a rare disease with a very high mortality. It is seen first more frequently by the surgeon, because the great majority of these cases occur as a complication of otitis media, mastoidectomy, tonsillectomy, a sinus infection, or an infected wound of the head.

In 1932, Applebaum¹ in a review of the literature, found only forty-six cases of reported recoveries, including three of his own. Gray's² survey in 1935 revealed sixty-six recoveries since 1901, including one of his own. Mortality figures are estimated from ninety-seven to ninety-nine per cent. Since the establishment of the meningitis division of the New York Department of Health in 1910, Dr Josephine B. Neal³ reports 238 cases of *streptococcus meningitis* with twelve recoveries, giving a mortality of 94.9 per cent.

The treatment is not yet standardized. The value of sera is not yet established and the method of administration is under discussion. Neal⁴ advises the intraspinal route only, unless serological study shows a bacteremia. Fleischmann⁵ claims his experiments prove that intravenously given serum shows practically the same concentration in the spinal fluid, after twenty-four hours, that it does in the blood, and that medication given intraspinally is not effective. It is for the purpose of aiding in clarifying this important question of the treatment of *streptococcus meningitis* that the following cases are reported in detail as to treatment.

Case Reports

CASE 1. Girl, eleven years old, entered Staten Island Hospital Feb. 18, 1934 on my service. Temperature 101.2°F, pulse 130, respiration thirty-six. A sister died a year before of *streptococcus meningitis* following a mastoid operation. Other family history was negative.

A month previously she had a glandular swelling of the neck. This subsided in two weeks. Two weeks previous to admission to

hospital, after having pain in left ear for twenty-four hrs., a discharge of serous fluid began, which had continued ever since. X-ray confirmed clinical diagnosis of acute mastoiditis on Feb. 20. An operation for mastoiditis was performed by Dr. V. G. Smith, and pus and extensive necrosis was found. Temperature rose to 103.2 the day following operation, but in two days dropped to normal with clinical improvement. On evening of Feb. 24 temperature rose to 104 with symptoms of meningitis developing. The following day twenty-five c.c. of cloudy spinal fluid was removed under pressure. The temperature remained at 105 and clinical picture grew worse—headache and restlessness were more severe, patient becoming listless and drowsy. The spinal fluid showed w. b. c. count of 3,600 per c.m.m., positive for globulin, sugar negative. Smear showed no organisms, culture showed a pure growth of *streptococcus hemolyticus*. A culture from the wound showed the same growth. The patient was talking irrationally and involuntarily, vomiting appeared for the first time. The situation appeared hopeless. My associate, Dr. W. Lynn Halbert, suggested that Lederle's *Erysipelas Streptococcus Antitoxin* be tried, and this treatment was instituted under his supervision. At 3 P.M. (Feb. 26) six c.c. of this serum was injected in the buttock. At the time the temperature was 104.8, pulse 124, respiration twenty-six. Patient was incontinent and irrational. Ten c.c. were injected intramuscularly at 10 P.M. In twelve hours the improvement was marked. Temperature fell to 102.4, patient became rational and continent, vomiting ceased. Thirty-five c.c. of cloudy spinal fluid was withdrawn under pressure of 300 mm., cell count 1470 per c.m.m., globulin, trace, no sugar. There was no growth on culture and no organisms found on smear in this or the seven subsequent spinal taps. On the 27th, two doses of ten c.c. each were given intramuscularly. On the following day six c.c. of serum was given intraspinally, following a tap of twenty c.c. of cloudy fluid under pressure of 150 mm. and four c.c. given intramuscularly. Within twenty-four hours the temperature fell to below 100 and remained there for a week. On March 1 six c.c. of serum was given intraspinally. The following day five c.c. was given intraspinally.

and five c.c. intramuscularly. Five c.c. was given daily until March 6, then again on the 8th. On March 8 and 9 temperature rose to 101. Patient began complaining of severe head, eye, and tooth pains, and occasional pains in various parts of the body. The clinical picture grew worse for three days. An intracranial abscess was suspected. Stereoscopic x-ray of skull was negative. Sedimentation rate sixty-six, blood, hemoglobin seventy-eight per cent, r.b.c. 4,120,000, w.b.c. 14,000, s.l. thirteen per cent, l.l. five per cent, polys. eighty-two per cent, band forms two per cent. Repeated neurological and ophthalmological consultations were negative. The spinal taps on March 8 and 9 were clear, pressure 200-240 mm., w.b.c. 140-180, sixty per cent lymphocytes, globulin two plus, faint trace of sugar. On March 12 temperature rose to 103.6 and the next day to 104.4. On March 13 under an anesthetic, the wound was opened, all granulations removed, bone was healthy, lateral sinus appeared normal. Twenty c.c. of cloudy spinal fluid withdrawn and five c.c. of serum introduced, also five c.c. given in the buttock. The spinal fluid showed cell count of 2,230, lymphocytes predominating, sugar normal, globulin plus. The following day patient improved, temperature falling to 101. Two days later two c.c. of serum was given intraspinaly and five c.c. intramuscularly. This was the last administration of serum.

The day following the temperature fell to 100 and ranged between normal and 100 for ten days. A culture of the wound was not made for several days after operation, but showed streptococcus hemolyticus. A vaccine was made of this and beginning March 1 small increasing doses were given daily for three days and later at three and four day intervals. All blood cultures were negative. All laboratory work was done personally by our pathologist, Dr. Penke. The patient was typed and cross-matched, preparatory to transfusion, but none was deemed necessary. Ten spinal taps were made. Ninety-nine c.c. of serum in seventeen doses was given—five intraspinaly (with a total of twenty-four c.c.) and twelve intramuscularly (with a total of seventy-five c.c.). Treatment was begun on the second day of onset. Whether the second attack was a lighting up of the meningitis or a reinfection from the wound is debatable. All symptoms subsided after two spinal injections of five c.c. each and two intramuscular injections of five c.c. each, together with a thorough curettement of the wound.

CASE 2 A policeman, aged twenty-nine, admitted to St. Vincent's Hospital April 25, 1935, unconscious as a result of an automobile accident. There were multiple bruises and abrasions, a three inch scalp wound of the forehead, left conjunctival hemorrhage with closure of the eye, and swelling and tenderness over lower dorsal and upper lumbar vertebrae. He became more irrational and restless. The next day it was necessary to remove him to the cell. Under paraldehyde and fifty per cent glucose intravenously he quieted down in twenty-four hours. No M.S. was given because of suspected abdominal lesion. His temperature was 103.6°F on April 27. There was redness around scalp wound and a cloudy serous discharge. Report of culture the following day was "pure extensive growth of hemolytic streptococcus." Sutures were removed and wet dressing applied. The mental picture cleared somewhat. Complained of tingling pains in leg and difficulty in voiding and general muscular pains. Temperature ranged from 99-102. Except for a spreading cellulitis of scalp patient's general condition improved. On May 2 he became incoherent, attempted to get out of bed, removed dressings. Temperature was 103.4. There was a weakness of left facial muscles and photophobia. Pupils reacted equally to light. Rigidity of neck muscles was present. Spinal tap showed fifteen c.c. of cloudy fluid under normal pressure. Owing to formation of a web, cell count could not be made. Polys were eighty-one per cent, small lymph. eleven per cent, mononuclears two, metamyelocytes six, globulin increased, sugar 0.010 per cent, no bacteria on smear or culture. Blood culture negative. The patient was seen by Dr. Samuel Reback and diagnosis of meningitis confirmed, but the diffuse neurological findings made it necessary to consider a possible traumatic encephalopathy. Having seen case No. 1 in consultation, Dr. Reback agreed to the use of the same erysipelas serum. At 5:30 p.m., ten c.c. was given intraspinaly and intramuscularly. Patient was very restless the early part of the night but slept at long intervals toward morning. The next day, (May 3), patient was much brighter, appetite good, temperature 102. Headache still severe. Neck rigidity same. Ten c.c. of serum given intraspinaly and intravenously. Spinal tap under pressure gave twenty c.c. less cloudy, cell count 4000—eighty per cent polys, twenty per cent lymph, no bacteria on smear or culture, globulin marked increase, sugar 0.0010 per cent. Stereo of skull showed no signs of fracture or sinus involvement. On May 4 condition

steadily improved, temperature gradually falling to 100.2, cellulitis subsiding rapidly, and discharge from wound less. Ten c.c. serum given intraspinally and intramuscularly. Superficial abscess on dorsum of foot opened. Culture sterile. Spinal tap less cloudy, cell count 491, globulin markedly increased, ninety per cent polys, ten per cent lymph., smear and culture negative.

May 5 improvement continued. Temperature range 100.2-100.8. Ten c.c. serum given intravenously. No change in spinal tap. May 6, symptom-free except for occasional headache and temperature 100-100.4. After two c.c. of serum had been given intravenously the patient grew pale, experienced air hunger, and tachycardia. One c.c. of adrenalin by hypo checked reaction and the remaining serum was given intramuscularly. Temperature remained normal till discharge on May 11.

The only other therapeutic measure tried was spinal drainage with hypertonic salt solution which yielded only twelve c.c. This was tried on the second day of the meningitis. There were nine doses of serum given, three intraspinally totalling thirty c.c., three intravenously totalling twenty-two c.c., and three intramuscularly totalling twenty-eight c.c. The administration of serum was begun within twelve hours of discovery of meningeal symptoms. Five spinal taps were done. The patient was typed and cross-matched but transfusion was not necessary. Patient was discharged on the fourteenth day and remained two weeks in bed at home, requiring small doses of phenobarbital to allay nervousness and headaches.

It was with great hesitancy that case 2 was reported as a streptococcus meningitis. But after consultations with Dr. Neal and Dr. Margit Freund-Klemperer, pathologist at St. Vincent's Hospital, and a study of the spinal fluid findings together with the clinical picture, it was deemed justifiable.

The history of concussion, and an extensive cellulitis of the scalp that showed streptococcus hemolyticus, the low sugar and high poly count in the spinal fluid, and the intensity of the onset, would indicate a bacterial meningitis. A serous or meningitis sympathica could easily give a high cell count, but the sugar would not be diminished. In this case the sugar content was rechecked carefully by Dr. Freund-Klemperer personally. In the first case there was one positive spinal culture, but no bacteria were found on smear or

culture after giving two doses of serum intramuscularly. Treatment was begun on the second day. In the second case treatment based on the wound culture was begun within twelve hours of onset of symptoms of meningitis and no organisms were found in the spinal fluid on smear or culture. The first case received auto-vaccine because of the duration of symptoms. In the second case one saline irrigation of the brain was tried but without success. The last intravenous dose gave a marked reaction. No more than one spinal tap per day was done in either case and then only when deemed necessary. Supportive treatment with all the sedatives necessary was carried out.

In the first case ninety-nine c.c. of serum was given, twenty-four c.c. intraspinally and seventy-five c.c. intramuscularly. In the second case, a robust adult, eighty c.c. of serum was given—thirty c.c. intraspinally, twenty-eight intramuscularly, and twenty-two c.c. intravenously. In reviewing the treatment of the recovered case, there is noted a marked tendency to more conservative and supportive treatment.

With due allowance for spontaneous recoveries, and in view of the high mortality of this disease, the use of serum in these two cases may be of some significance. Its use is harmless within simple limitations. In surgical head cases showing streptococcal infections the possibility of meningitis should be constantly borne in mind and treatment instituted at the earliest possible moment. In the first case the failure to make a culture at the time of operation caused two days delay in beginning treatment. The patient, a child, received more serum and was acutely ill for a longer period than the second case, an adult.

In reviewing the various sera used in the reported recoveries, these are only cases in which Lederle's Erysipelas Streptococcus Antitoxin was used. In Gray's series of sixty-six recoveries, serum therapy was employed alone or with other measures in twenty-two cases.

Summary

1 Two recoveries from streptococcus meningitis are reported, making the total reported cases sixty-nine.

2 Twenty-four of the sixty-nine cases were treated by various streptococcus sera

3 The question of the best method to introduce the sera is unsettled—all three methods were used in these cases

4 The importance of watching for the onset of meningitis symptoms in all cases of streptococcal infection is stressed and the institution of treatment begun without delay

5 From the result in these cases, the use of Lederle's Erysipelas Antitoxin, which is everywhere available, and harmless, seems worthy of a trial in this rare disease

Addendum

Since writing this article Case 2 remained well until April 1936 when he had a series of seizures of the Jacksonian type involving the right side of the face and neck. In August, this was repeated followed by several of the grand mal type. Since there has developed very marked personality changes

100 CENTRAL AVE.

References

- 1 Applebaum *J.A.M.A.*, 98 1253, 1932
- 2 Gray *Ibid.*, 105 92, 1935
- 3 Personal communication
- 4 Neal *N. Y. State Journal Med.*, 33 94, 1933
- 5 Fleischmann *Klin. Wochschr.*, June 28, 1922

NEW LOCAL ANESTHETIC

A new local anesthetic that combines the actions of novocain and epinephrine, while at the same time, it is hoped, eliminating some of the dangers inherent in one or the other of the two substances, is reported in *Science*, official organ of the American Association for the Advancement of Science

The new anesthetic, which so far has been used only on animals, is described by Dr. Raymond L. Osborne of the DeLamar Institute of Public Health, College of Physicians and Surgeons, Columbia University

"One of the disadvantages of novocain (procaine) and its known relatives," Dr. Osborne says, "is that they tend to dilate the peripheral blood vessels. They cause a pronounced fall in blood pressure, as does cocaine in the ordinary concentrations

"We report the discovery of a new local anesthetic which is vasopressor"

That is, instead of dilating it compresses the blood vessels, and thus reduces the danger of bleeding

Epinephrine, which is the hormone secreted by the medulla of the adrenal gland and is also known as adrenaline, had been found about thirty years ago to enhance the effect of cocaine and later was found to be similarly efficient with novocain. Novocain by itself dilates the blood vessels and hastens the exit of the anesthetic from the site of action. With the addition of the epinephrine the duration of anesthesia is

prolonged for more than an hour, so that the concentration of the anesthetic can be considerably lowered. The danger of poisoning is also decreased

These results are due to the constriction of the blood vessels produced by the epinephrine, which practically arrests absorption of the novocain into the circulation

"On the other hand," Dr. Osborne adds, "the nervousness induced by epinephrine in hypersensitive individuals is objectionable, further, it may make them susceptible to cocaine collapse. The epinephrine combination, moreover, is useless on the intact cornea and for intravenous and subdural injections. Also, novocain and other known synthetic derivatives tend to increase bleeding

"In 1931, under the supervision of Professor Nelson and Dr. Powell of the Department of Chemistry, Columbia University, we began the preparation of a compound that would combine the actions of epinephrine and procaine. After discarding many such drugs because of undesirable effects we have finally synthesized epicaine, which is both a local anesthetic and a vasopressor"

The technical name for the new drug is alpha (3, 4-dihydroxyphenyl) beta (para-aminobenzoyl)betadiethylaminoethanol) alphasphaethanonehydrochloride, designated for brevity as epicaine

PALESTINE MEDICAL CENTER

The American Jewish Physicians Committee gave a dinner at the Hotel Waldorf-Astoria in honor of Dr. Saul Adler, Pro-

fessor of Parasitology at the Hebrew University in Palestine on Jan. 31. Two hundred and fifty attended

RETINAL METHOD OF IDENTIFICATION

New System of Classifying Retinal Patterns

CARLETON SIMON, M D, *New York City*

Criminologist of the International Association of Chiefs of Police, New York State Association of Chiefs of Police and the New England Association of Chiefs of Police

At the Convention of the International Association of Chiefs of Police, held in Atlantic City, N J in 1935, I presented a method of identification which involved the use of the fundus, retina or background of the eye. Dr Isidore Goldstein, Visiting Ophthalmologist to Mt Sinai Hospital and other hospitals in the City of New York, collaborated in this research then and since in obtaining photographic instruments, assembling clinical data, and securing retinal photographs of patients in the Mt Sinai Hospital and the New York Eye and Ear Infirmary. Only those who had no serious eye lesions were selected. Photographs of numerous twins were also obtained.

During the past year, Mr Allan Brooms, a research engineer of New York City, has also collaborated with us. His graphic devices contributed in the development of the system of classification here presented. He designed various appliances, one by which an individual photographic negative can be automatically registered for filing purposes. He also originated a terminology to define units of an angle which has been conveniently used by us.

Shortly after our first publication¹ of the use of the retina as a new method of identification, it came to our notice that attempts in this field had previously been made, our attention being called to monographs in French and German Archives. In our independent research, we used then as we do at present, the only available camera, which is manufactured by Carl Zeiss, Inc., of Jena, Germany, whose American representatives gave us fullest cooperation, but who likewise were not aware of any prior work done in this direction.

On translating these papers, we felt encouraged in the support they gave to

our own conclusions, namely, that the blood vessel patterns in the retina from birth until death differ in each individual, even between the right and left eye, and furthermore that this fact furnished a sound foundation upon which to base a scientifically accurate means of identification. It may be timely and it is certainly interesting to review in a general way these various earlier approaches.

Levinsohn, (Berlin, 1899) an ophthalmologist, believed that identification might be unquestionably made through the arrangement and division of the blood vessels of the fundus of the eye, these being unchangeable. He mentioned no system of classification and his entire observations were made through the visual ophthalmoscope. He had no retinal camera.

It is common knowledge that the first attempt to photograph the retina, and then solely for medical purposes, was made by Noyes (America in 1862) and by Bagneries (France in 1889). These were admittedly crude attempts. Gerhoff and Meissner in 1891 also tried to take photographs of the retina through the use of a water chamber and succeeded in obtaining some serviceable pictures.

The first practical camera was devised by the Vienna Ophthalmologist, Dimmer, and was constructed in the Zeiss works through the cooperation of Kohler and von Rohr. The present retinal camera, with vast improvements over preceding ones, was designed by Prof Nordenson of Upsala University. This is the camera used by us.

Dr Leo Haber, in a short monograph entitled "Retinoscopy for Criminal Identification," stated² "The only difficulty that exists is that there will be difficulty in classifying this system for identification."

At the present time there is no system whereby a proper classification and filing are possible." He did suggest the magnification of the photograph and the employment of a screen and also the use of the

Read at the Annual Convention of The International Association of Chiefs of Police, Kansas City, Mo., September 21-24, 1936

optic nerve as a fixed center, this last a most natural and obvious geometrical and anatomical point. He was likewise of the belief that the blood vessels of the retina were beyond the power of any individual to change. Leo Haber was himself criticized by R. Heindl, to the effect that his work

of slight use because of the difficult technique employed by Levinsohn.

The next worker in this field was Blascheck, another ophthalmologist, who tried various methods, but never published his results. At his death a friend and associate, Dr. Turkel, took this data and tried to com-

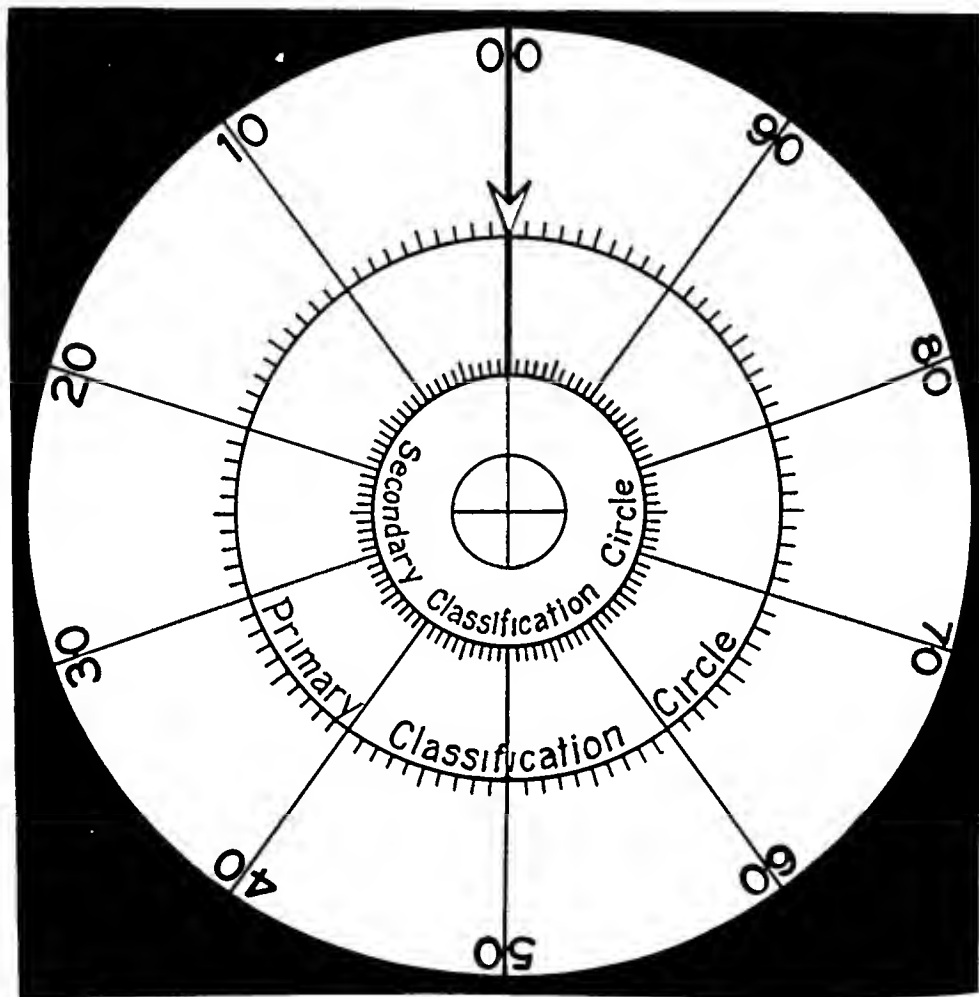


Fig 1 The Retinal Protractor. Circumference divided into 100 "Centigrees." Classification circles respectively ten and five mm from the center.

was not original and that he had overlooked that done previously by Levinsohn.

Edmond Locard and Capdevielle also made some suggestions and criticisms but did no research in this direction, neither attempting nor being responsible for any system of filing or classification. Locard, among other subjects, suggested the eye as a means of identification, by using the color of the iris, interpupillary distances, corneal and orbital measurements. His only reference to retinal measurement was that it was

plete the ideas expressed in them. Blascheck had been a pupil of Dr. Dimmer, who was the first to develop a practical retinal camera, and who also took and assembled a large number of retinal photographs illustrating pathological eye conditions. Dr. Dimmer also died before Turkel could secure his counsel and cooperation in completing and arranging the notes left by Blascheck. It may also be interesting to note that Turkel gave expression to the criticism that the work done by Haber was

only suggestive, too meager to build up a classification and identification system. Turkel attempted various methods—a routine which anyone would likely employ in groping for some standard method. He drew various parallel lines upon the photographed retina and endeavored to classify retinas by

In our search for a standard method of classification, a great many ideas were subjected to trial. We were of the opinion as was Haber, that the use of a meshed screen photographed simultaneously on the negative of the picture might

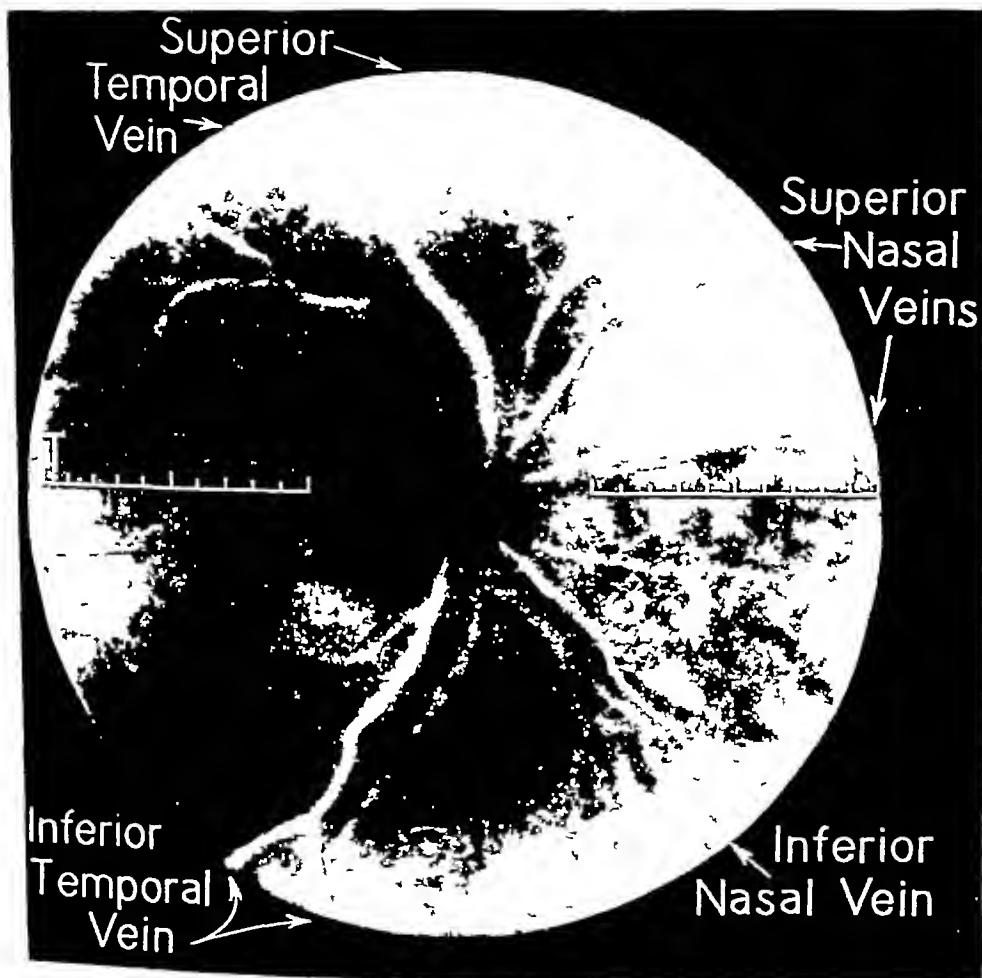


Fig 2 T N Scale of one millimeter unit divisions, imprinted during photographing of retina, showing degree of magnification.

the count of the various arteries and veins that intersected them. He also used the method of noting the manner and places where the blood vessels passed out or entered the optic nerve, paying particular attention to bifurcations or branching of vessels. His work in this field must have been purely theoretical or confined to a few photographs as the arteries are sometimes extremely vague in outline on the photographic plate, and therefore tend to introduce errors and complications.

serve as an index for bifurcation of blood vessels. For many years prior to Haber, Dr Goldstein had used a similar screen to measure the width of blood vessels in certain diseases of the eye by indirect ophthalmoscopy. This device has since been incorporated into ophthalmoscopes. For reasons hereafter mentioned we discarded this method in our present system.

We realize that the meager results of antecedent research in this inviting field

was largely due to lack of equipment, inefficient instruments, and the use of the visual ophthalmoscope for this purpose. At present many of these barriers have been removed by improvements in the retinal camera, by light color filters, and also by photographic plate sensitiveness.

We stated last year that in a modification of the type of protractor first used by us we may obtain a system of angulation and classification which would not of necessity depend on the bifurcation of blood vessels. We are glad to say at this time that we have attained that objective.

The retinal pattern of veins and arteries, normally constant in any given individual, but varying between individuals in an infinite number of details, affords an unambiguous means of personal identification. Confusion as between any two retinal photographs is extremely unlikely, so our problem has never been that of identification itself, once the photographs of a given eye have been brought together. Our problem has been to bring them together, to classify so that we can file and find with certainty. We are therefore here presenting, not so much a system of identification, but one of classification. Given a practical system of classifying, and therefore of filing and finding, identification follows without any real problems.

It became quickly obvious that only a few points in the retinal patterns had to be used for classifying purposes, as even a few variations afforded combinations amounting into the millions. Because of their lighter color blending too well with that of the general retinal background, the arteries did not stand out so boldly as the straighter, darker, and wider veins which photograph with marked contrast. The vein pattern alone is therefore used for classifying, the arteries being ignored.

In arriving at a finally practical system, a number of devices were experimented with and discarded. Various systems and scales of ordinary rectangular coordinates were tried, using points of bifurcation of the veins, or their intersections with lines of the coordinate field, for classifying. We tried out the system of describing points used with topographic maps, dividing the photographic field into nine numbered squares, then subdividing each of these into nine smaller squares, and so on to

any desired degree of precision. We also combined in these tests a 360 degree protractor for measuring the angles taken by the veins. But the same eye, photographed twice, often gave discrepant readings merely because the subject's head had tilted slightly one way or the other between exposures. In other words, we had no means of establishing the true horizontal and vertical for our coordinate system. Even imprinting the coordinate lines on the original photograph during exposure did not avoid this difficulty, but instead added the difficulty of accurate centering while taking the picture.

So, thereafter, we established all our axis of measurement upon the picture itself with reference to obvious points in the photographic field. This eliminated the need for precise centering and leveling during photographic exposure, both unattainable in practice. The center of the papilla or area of entrance of the optic nerve into the retina, which appeared on the photographic negative as a dark circular disk, served as one obvious point for fixing such axis.

Because of its uniform prominence and constant presence, it was decided to select some point in the superior temporal vein as the second point fixing the axis of reference. At first we used its principal point of bifurcation as this axial point, but when cases appeared in which this bifurcation was absent, we chose instead a point in this vein or its most temporal branch ten mm. (on the photographic negative) from the center of the papilla.

This device demanded that the various negatives from a given eye must be magnified to the same degree, otherwise the ten mm. point would fall on the superior temporal vein at varying points in the pattern, thus throwing off the axis of reference and giving variant classification readings. While sharp photographs can be taken with the Zeiss retinal camera at varying magnifications, it provides means for securing uniform magnifications of any given eye. The illumination image must first be focussed sharply on the cornea, then uniform magnification results upon sharp focussing of the retinal field as seen in the eyepiece.

Having fixed the magnification or scale of the picture, but having also discarded

imprinting the coordinate lines (screen) on the original negative, we considered it advisable to imprint a simple scale line when exposing the picture. As the original scale line on the negative has millimeter divisions, the magnification of any subsequent enlargement can be readily determined. On this scale, the letter T indicates the temporal end, the letter N, the nasal. The middle portion of the scale is omitted to avoid confusion with central details of the picture, but this does not impair its use in taking measurements.

By this time it had become apparent that the rectangular coordinate system was not adopted for describing the generally radiating pattern of the veins. Some system of polar coordinates was clearly indicated. The center of the papilla was the obvious center from which the distances, say of bifurcations, could be measured. The axis running from this center and through the point ten mm distant on the superior temporal vein would serve as the zero axis from which angles of points in other veins could be measured.

With this polar coordinate system, it was easy to describe the point of bifurcation of any vein as so many millimeters from the center and so many degrees of angle clockwise or counterclockwise from the zero axis already fixed. But this demanded up to five figures for the description of a single point, one or two for distance from the center and one to three for degrees of angle. The use of many figures promised to be cumbersome.

Besides, we again discovered that bifurcations are not always available, that veins often failed to branch within the field of view. At first we overcame this lack by giving only the angle of a point in the vein ten mm. from the center, then adding the letter X to indicate both the ten mm distance and the lack of bifurcation.

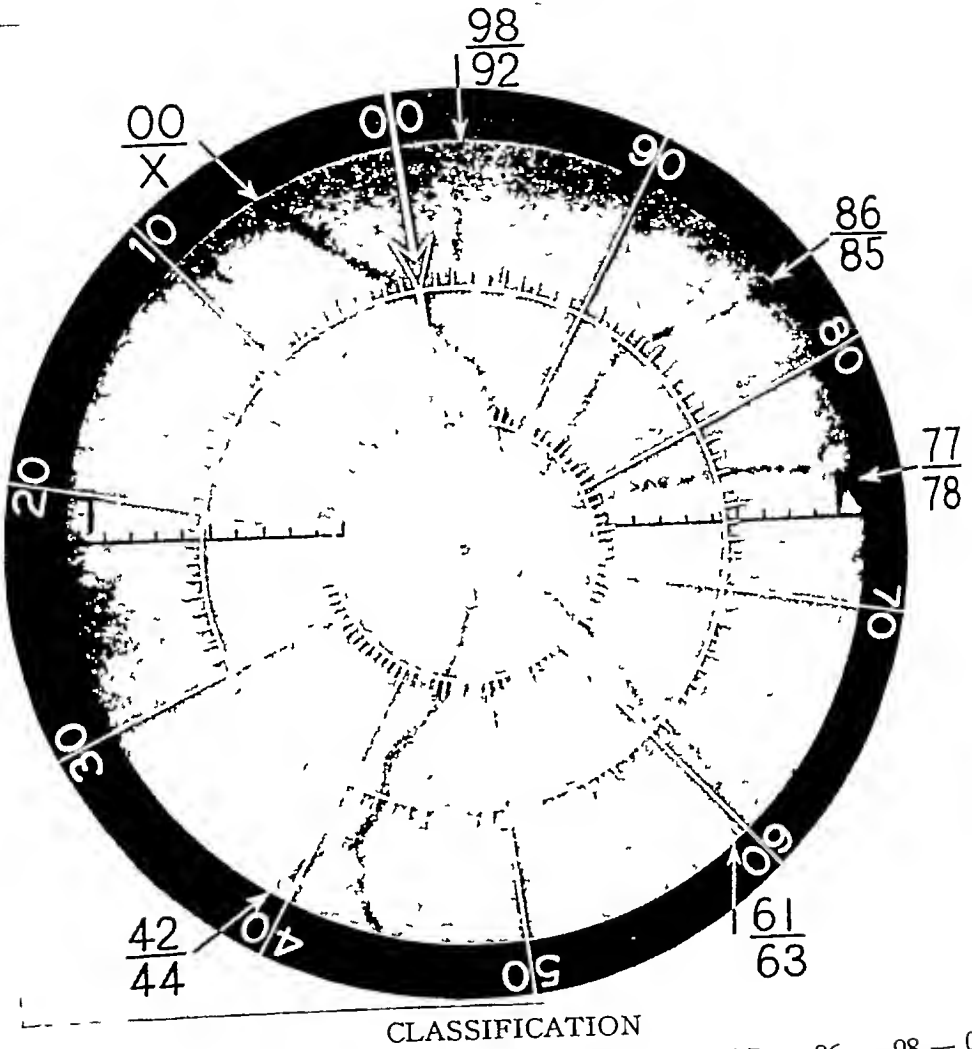
This X device, however, led us shortly to our present simpler system. We ignored the bifurcations altogether, and gave only the angles of the series of points in the several veins and their branches ten mm from the center. In other words, we gave the angles at which veins or branches intersected a circle of ten mm radius, the center of the circle

being of course at the center of the papilla. We also added an inner similarly centered circle of only five mm radius. The first became the Primary Circle and its series of intersection angles the Primary Classification. The second or inner circle was of course the Secondary Circle, and its intersection angles, the Secondary Classification. In coding it, we place the Primary Classification above a horizontal line, and the Secondary Classification below, with the two readings for any given vein one directly above the other. When a vein or branch fails to cross one of the circles, we indicate the lack of intersection by putting an X in place of the missing reading.

In measuring angles, we first used as stated previously, the ordinary degrees, 360 to a circumference. But later we adopted larger angular units, only 100 to the complete circle. One advantage was greater certainty in our readings, for the width of a vein, which may have overlapped several of the ordinary degree graduations (especially of the smaller Secondary Circle), now usually touched but one of the angle graduations. A second advantage was that we could always describe an angle with only two figures instead of the previous three figures. To avoid confusion, we now give every angle in two figures, those from 1 to 9 being given as 01 to 09.

These new units of angle, 100 to a circumference, we have named "centigrades." Tenths of a circumference would then be "decigrades," thousandths, "milligrades," and millionths, "micro-milligrades," a nomenclature thus elaborated now because it may prove useful for other purposes than our own. For such other purposes, angles may be simply written as decimal fractions of a circumference.

To facilitate classification, we have devised a glass or celluloid protractor or angle measurer. Being transparent, it can be laid and fitted over the retinal photograph. The original negatives taken with the Zeiss retinal camera have a field averaging thirty-two mm or about one and one-quarter inches diameter, and the protractor, with outside dimensions somewhat larger, can be made to fit an ordinary fingerprint magnifier. Thus magnified, the adjustment or fitting of the protractor to its proper position on the



Primary
Secondary

42 — 61 — 77 — 86 — 98 — 00
44 — 63 — 78 — 85 — 92 — X

Fig 3 The transparent protractor is centered over the optic disk, with arrow point (zero) on the first edge of the superior temporal vein or its furthest left branch (in right eye)
Readings are taken where the last edge of veins cross the classification circles, first around the Primary Circle, then around the Secondary Circle, proceeding counterclockwise, and starting with the first branch encountered of the inferior temporal vein
When a vein or branch ends between the circles, its crossing of the one circle is indicated by the proper reading, and its failure to cross the other by an X (as 00/X above)

photograph, and the subsequent reading of the classification angles, are both easier and more accurate

In practice, the protractor is first centered over the center of the papilla, a small circle and two cross-lines facilitating this operation The protractor is then rotated until a convenient arrowpoint, placed on its zero axis ten mm from its center, touches the superior temporal vein

or its most temporal branch on the photograph There are of course two circles on the protractor, the Primary and the Secondary, each divided into 100 centigrees The classification readings are taken where the veins intersect these circles

It should be noted that the numbering of the centigrees of angle, placed near the outside edge of the protractor, are in

counterclockwise order, reading at the top from right to left. This is merely a convention suited to the fact that in the right eye (which we expect to use, largely if not exclusively) the first angle from our zero axis to an intersecting vein is wider in this direction than in the other. This

wider first angle involves a wider range of variation in our first classification reading, and this is what we are really after, for it means the immediate breaking up of our classification into a large number of divisions with our very first reading. Occasionally, we may have to use a

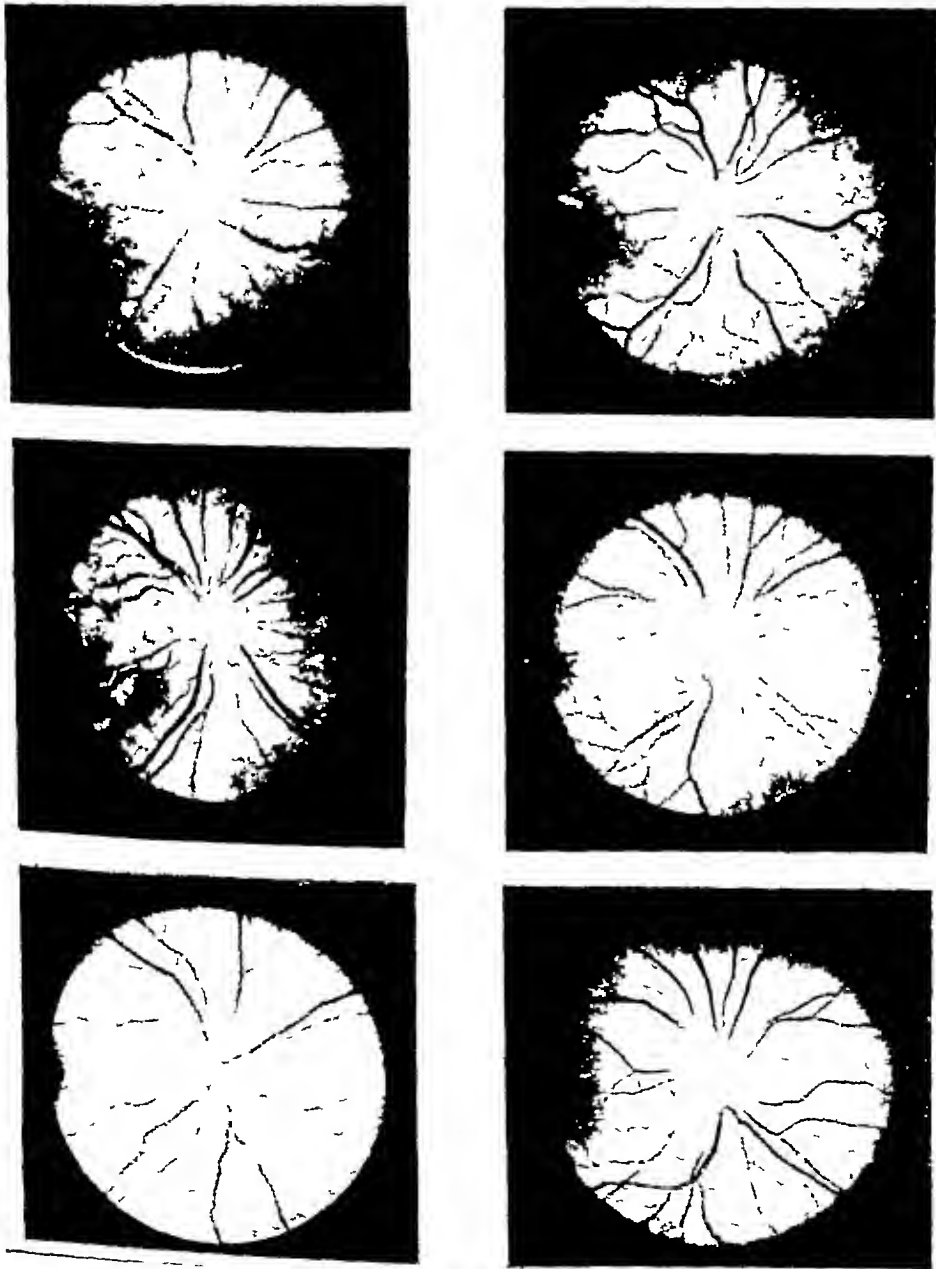


Fig 4 Individual enlarged pictures showing different vein patterns The T N scale

left eye. In that case, we use the same protractor, but take our readings in clockwise instead of counterclockwise order. This again gives us the wider angle of reading and wider range of classification at the very beginning. Another advantage of this convention is that we can instantly recognize a left retinal classification, for the readings, which in a right classification proceed upward, from lower towards higher numbers, in a left classification proceed downward, starting with high numbers and going on to lower and lower numbers.

For accuracy in reading and consistency in classification, we have adopted additional conventions, as follows:

1. We take our readings at the edges of veins, not at their centers, simply because the edges give us more definite intersections. The edge used is always the first one we come to (before crossing the vein) as we proceed in our readings around the classification circles, counterclockwise for right eyes, clockwise for left eyes.

2. In first adjusting the protractor to the retinal photograph, we also use this first edge of the superior temporal vein or its most temporal branch for fixing our zero axis. In other words, we rotate our protractor until its arrowpoint touches the nasal side of this vein or branch.

3. As we proceed around a classification circle in taking our readings, we always assume the first branch of a vein which we encounter as the main vein, however prominent other branches may appear. The branches encountered later are then considered as mere branches. As they may not cross the Secondary Circle, this convention often determines where we place our X's in our classification.

Our experience with this procedure and these conventions indicates that they meet all conditions found in the retinal pattern and can be applied with consistency. The system has the marked advantages of being simple, its descriptions involve a minimum of figures, and they are filed in purely numerical order. It can be mastered for practical use in a couple of hours. The range of classifications, determined by the number of combinations of possible variations, runs into millions

when two classification circles are used.

We desire to thank Inspector C. C. Carmody of the Detroit Police Department who early recognized the value of retinal identification and who enlisted the services of Dr. Samuel J. Rubley, an ophthalmologist, to further delve into this subject. He opened up to Dr. Rubley the use of his photographic and technical equipment. We have during the past year been in almost constant communication with Dr. Rubley who has devoted a great deal of time to various phases of research. He has succeeded in taking photographs through pathological opacities of the eyes through the aid of red sensitive plates and a Wratten filter. He has also taken a large number of normal retinal pictures. In association with Dr. C. H. Brugher of the Pathological Staff of the University of Michigan he has also contributed valuable information in the technique of postmortem retinal photography.

Conclusion

We feel that we have completed a practicable workable system of classification of a method of personal identification which has at least one advantage over any other method, in that it cannot be changed or tampered with. We never contemplated that it should ever replace skin ridge identification which has only one possible defect but many other advantages over all other methods. We were of the opinion, to which we still adhere, that retinal identification was a valuable adjunct to fingerprint identification in certain cases and emergencies. Whatever service to criminal science our contribution may render only time will disclose. We feel amply repaid for the amount of energy expended and time devoted to this work. We feel that our results have justified our hopes and leave whatever we have accomplished as footprints for others to follow.

50 E. 58 St.

References

1. Simon, Carleton and Goldstein, Isidore. *NEW YORK STATE JOUR. OF MED.*, 35 901, 1935.
2. Haber, Leo. *Vienna Anthropological Arch of Criminology*, Vol. 74, 1921.
3. Locard, Edmond. *Method of Capdevielle (L'Identification des Récidivistes)*, p. 77, Paris 1909.

Another medical film is out, called "Green Light," which depicts the struggle of a

young physician to conquer Rocky Mountain Spotted Fever.

SYPHILIS IN PREGNANCY

SAMUEL S. PALEY, M.D., *New York City*

Physician-in-Charge, Social Hygiene Clinic, Central Harlem Health Center, Associate Visiting Physician Harlem Hospital

There can be no doubt that the problem of syphilis in the pregnant woman constitutes a serious public menace and health problem. This is especially true of syphilis in the Negro because of its greater prevalence in that race.

Many studies¹⁻⁵ have already been made dealing with the subject of syphilis in pregnancy. Most of these studies have been made in the southern part of the United States, and it is of interest to report on a similar group of pregnant syphilitic women residing in New York City where conditions of sanitation and the standard of living are probably better than in the southern states.

The occurrence of syphilis among the Negro population of New York is considerably higher than it is among the white population. This disparity also exists with regard to syphilis in pregnancy reaching a point of five to ten per cent among the white population and fifteen to thirty-four per cent among the Negro population. The incidence of syphilis among pregnant Negro women in the prenatal clinics of the Central Harlem Health Center District is 11.4 per cent of 1,402 women examined in the period from 1933 to 1936.

This study deals with a series of 617 pregnant women suffering from syphilis in its various stages who were observed and treated over a period of six years from 1930 to 1936. Inasmuch as the history was found to be extremely unreliable as a means of diagnosing the disease, dependence was placed principally on the serologic tests as well as on such clinical manifestations as were evident on examination. The age of the patients varied from fifteen to forty years, and ninety-five per cent of them were Negroes. In all these cases the result of the pregnancy was known and all living children were observed over a period of years during

which time repeated physical examinations and Wassermann tests were made. The effects of syphilis and of antisyphilitic therapy were, of course, determined by the outcome of the pregnancy. All living babies were examined and Wassermann tests were taken when the child was one month old. These examinations were repeated at intervals of three months if the original examinations showed no evidence of syphilis. The babies with syphilis were placed under treatment. The diagnosis of syphilis was made almost entirely on the Wassermann test, inasmuch as clinical manifestations of syphilis were infrequent in this group of cases, being present in only one per cent of all the babies examined and in five per cent of the babies with syphilis.

All abortions, miscarriages, still-births, and death in babies under two months of age born of these syphilitic women were considered presumably due to the syphilitic infection. These cases were grouped with the cases with positive Wassermann tests under the heading of syphilitic tragedies.

It was decided to analyze the results of our study from two principal standpoints, *first*, with regard to the duration of the infection in the syphilitic mother, *secondly*, with regard to the amount of antisyphilitic treatment received by the mother during the current pregnancy.

With reference to the duration of the infection, the cases were divided into three groups, (1) Infection less than two years' duration, (2) two to five years' duration, and (3) over five years' duration.

The duration of the infection was determined principally by a history of primary or secondary manifestations, by positive Wassermann tests, and by the marital history. There was only one case of proven congenital syphilis in the mother, and this case was included in

*From the Service of the Social Hygiene Clinic, Central Harlem Health Center,
New York City Department of Health*

those with duration over five years. Incidentally, the baby born of this mother whose therapy during pregnancy consisted of five injections of neoarsphenamine and five injections of bismuth showed no clinical evidence of syphilis as well as a negative Wassermann reaction.

With reference to the amount of treatment received during pregnancy the cases were again divided into three groups (1) Those receiving less than four injections of neoarsphenamine plus bismuth, (2) four to seven injections of neoarsphenamine plus bismuth, (3) eight or more injections of neoarsphenamine plus bismuth.

abortions, miscarriages, still-births, and deaths under two months make up an alarming total of twenty-eight per cent syphilitic tragedies.

It is interesting and important to note that the group of cases which received some antisyphilitic therapy prior to this pregnancy shows much better results in this current pregnancy. There were less than eight per cent syphilitic babies in this group and only 21.74 per cent total syphilitic tragedies as compared with 17.13 per cent syphilitic babies and 29.49 per cent total syphilitic tragedies in the group which had never before received any antisyphilitic therapy.

TABLE I—ANALYSIS OF OUTCOME OF PREGNANCY

All cases without regard for duration of syphilis in the mother or amount of treatment administered during pregnancy

	Total cases	*Previous treatment	No previous treatment	Primipara	Multipara
Total	617	115	502	175	442
Nonsyphilitic living babies	444 71.96%	90 78.26%	354 70.51%	105 60.00%	339 76.69%
Living babies with syphilis	95 15.39%	9 7.82%	86 17.13%	43 24.57%	52 11.76%
Died before birth	43 6.97%	7 6.08%	36 7.17%	18 10.28%	25 5.65%
Died less than two months	35 5.67%	9 7.82%	26 5.17%	9 5.15%	26 5.85%
Syphilitic tragedies	173 28.04%	25 21.74%	148 29.49%	70 40.00%	103 23.31%

* This includes cases which have received 6 or more injections of neoarsphenamine plus bismuth prior to the current pregnancy.

The therapeutic procedure followed in this clinic consisted of continuous treatment during the entire period of pregnancy with weekly injections of both neoarsphenamine in doses from 0.1 to 0.3 gm and bismuth salicylate in oil in doses from 0.1 to 0.2 gm. Because of the fact that bismuth was given concurrently with neoarsphenamine, it was deemed advisable to limit the dosage of neoarsphenamine to 0.3 gms.

The following other factors were also considered in the analysis of the cases:

1. The trimester of pregnancy in which the patient presented herself for treatment.
2. Whether she had received any antisyphilitic treatment prior to this pregnancy.
3. Whether she was a primipara or a multipara.
4. Whether the father was also syphilitic.
5. Subsequent pregnancies in the same cases during the five years of observation were also studied and the results of these pregnancies analyzed.

Table I indicates very clearly the terrible toll that syphilis takes in pregnancy. Over fifteen per cent of the babies were born with syphilis. The number of

The difference in the results in primipara and multipara is also striking. However, this is only an apparent difference as will be shown subsequently because 113 out of a total of 175 primipara or sixty-five per cent were in the group of cases in which the duration of the syphilitic infection was less than two years.

Table II demonstrates the importance of antisyphilitic therapy in syphilis in pregnancy. Even a moderate amount of treatment increases the percentage of nonsyphilitic babies from 53.74 to 77.62 per cent, and an adequate amount of treatment increases the percentage of nonsyphilitic babies to eighty-six per cent, an increase of thirty-three per cent over those in the inadequate treatment group. Similarly the percentage of babies with syphilis declines from twenty-one per cent to 7.7 per cent and the total syphilitic tragedies from forty-six to 13.9 per cent. This demonstrates very strikingly the value of adequate antisyphilitic therapy in pregnancy.

Tables III-A, B show the tremendous incidence of syphilis among babies born of mothers in whom the duration of the

syphilitic infection was less than two years. Over thirty-seven per cent of the babies in this category were born with syphilis, and the total syphilitic tragedies were over fifty per cent.

Analysis of this group with regard to treatment shows how extremely important antisyphilitic therapy is in these early cases of syphilis. In the cases which received very little or no treatment the incidence of syphilitic babies was 42.5 per cent and the incidence of syphilitic tragedies reached a staggering total of 76.6 per cent. With a small amount of treatment the total of syphilitic tragedies was reduced to 48.9 per cent and with more adequate treatment this was further reduced to 23.8 per cent—over a fifty-three per cent reduction. It is to be noted that with a moderate amount of treatment the marked reduction in the total syphilitic tragedies was produced by the effected reduction in miscarriages, still-births, and deaths under two months of age, whereas with more adequate therapy the improvement was also noted in the number of babies born with syphilis, namely a reduction from 42.5 to 23.8 per cent.

Table IV-A demonstrates that the older the infection is in the mother, the less likely it is that the baby will be syphilitic. However, in this two to five year group the occurrence of syphilis in the baby is still considerable, amounting to 13.87 per cent living babies with syphilis and a total of 25.44 per cent syphilitic tragedies.

Table IV-B demonstrates that antisyphilitic therapy is also extremely important in this group of cases with infection from two to five years. Increasing amounts of antisyphilitic therapy reduced the number of living syphilitic babies from

17.2 to 8.6 per cent and the total syphilitic tragedies from 36.2 to 18 per cent.

These figures show that antisyphilitic treatment should be administered in this group of cases with the duration of the syphilitic infection from two to five years.

TABLE III—EFFECT OF DURATION OF SYPHILIS IN THE PREGNANT MOTHER

A Cases with syphilitic infection less than two years (See Tables IV-V)

	A	Primipara	Multipara
Total	138	113	25
Living nonsyphilitic babies	68 49 27%	58 51 32%	10 40 00%
Living babies with syphilis	52 37 68%	39 34 51%	13 52 00%
Died before birth	12 8 69%	11 9 73%	1 4 00%
Died less than two months old	6 4 35%	5 4 42%	1 4 00%
Syphilitic tragedies	70 50 73%	55 48 68%	15 60 00%

	B								
	Less than 4 injections neoarsphenamine plus bismuth			4-7 injections neoarsphenamine plus bismuth			8 or more injections neoarsphenamine plus bismuth		
Total	47			49			42		
Living nonsyphilitic babies	11	23	40%	25	51	02%	32	76	19%
Living babies with syphilis	20	42	55%	22	44	89%	10	23	81%
Died less than two months old	6	12	71%	0	0	0	0	0	0
Died before birth	11	21	28%	2	4	08%	0	0	0
Syphilitic tragedies	36	76	60%	24	48	97%	10	23	81%

TABLE IV

B Cases with syphilitic infection two to five years duration (See Tables III-V)

	A	Primipara	Multipara
Total	173	37	136
Living babies without syphilis	129 74 56%	28 75 67%	101 74 26%
Living babies with syphilis	24 13 87%	3 8 11%	21 15 44%
Died before birth	13 7 51%	5 13 51%	8 5 88%
Died less than two months old	7 4 05%	1 2 71%	6 4 41%
Syphilitic tragedies	44 25 44%	9 24 33%	35 25 74%

	B								
	Less than 4 injections neoarsphenamine plus bismuth			4-7 injections neoarsphenamine plus bismuth			8 or more injections neoarsphenamine plus bismuth		
Total	58			57			58		
Living nonsyphilitic babies	37	63	79%	45	78	94%	47	81	03%
Living babies with syphilis	10	17	24%	9	15	79%	5	8	62%
Died before birth.	7	12	07%	3	5	26%	3	5	17%
Died less than two months old	4	6	89%	0	0		3	5	17%
Syphilitic tragedies	21	36	21%	12	21	06%	11	18	97%

TABLE II

Effect of antisyphilitic therapy during pregnancy with out regard for duration of syphilis in the mother

	Less than 4 injections neoarsphenamine plus bismuth	4-7 injections neoarsphenamine plus bismuth	8 or more injections neoarsphenamine plus bismuth
Total	214	210	193
Living babies without syphilis	115 53 74%	163 77 62%	166 86 01%
Living babies with syphilis	45 21 03%	35 16 63%	15 7 74%
Died before birth	29 13 54%	9 4 28%	5 2 59%
Died less than two mos. old	25 11 68%	3 1 43%	7 3 62%
Syphilitic tragedies	99 46 26%	47 22 38%	27 13 99%

those with duration over five years. Incidentally, the baby born of this mother whose therapy during pregnancy consisted of five injections of neoarsphenamine and five injections of bismuth showed no clinical evidence of syphilis as well as a negative Wassermann reaction.

With reference to the amount of treatment received during pregnancy the cases were again divided into three groups: (1) Those receiving less than four injections of neoarsphenamine plus bismuth, (2) four to seven injections of neoarsphenamine plus bismuth, (3) eight or more injections of neoarsphenamine plus bismuth.

abortions, miscarriages, still-births, and deaths under two months make up an alarming total of twenty-eight per cent syphilitic tragedies.

It is interesting and important to note that the group of cases which received some antisyphilitic therapy prior to this pregnancy shows much better results in this current pregnancy. There were less than eight per cent syphilitic babies in this group and only 21.74 per cent total syphilitic tragedies as compared with 17.13 per cent syphilitic babies and 29.49 per cent total syphilitic tragedies in the group which had never before received any antisyphilitic therapy.

TABLE I—ANALYSIS OF OUTCOME OF PREGNANCY

All cases without regard for duration of syphilis in the mother or amount of treatment administered during pregnancy

	Total cases		*Previous treatment		No previous treatment		Primipara		Multipara	
Total	617		115		502		175		442	
Nonsyphilitic living babies	444	71.96%	90	78.26%	354	70.51%	105	60.00%	339	76.69%
Living babies with syphilis	95	15.39%	9	7.82%	86	17.13%	43	24.57%	52	11.76%
Died before birth	43	6.97%	7	6.08%	36	7.17%	18	10.28%	25	5.65%
Died less than two months	35	5.67%	9	7.82%	26	5.17%	9	5.15%	26	5.85%
Syphilitic tragedies	175	28.04%	25	21.74%	148	29.49%	70	40.00%	103	23.31%

* This includes cases which have received 6 or more injections of neoarsphenamine plus bismuth prior to the current pregnancy.

The therapeutic procedure followed in this clinic consisted of continuous treatment during the entire period of pregnancy with weekly injections of both neoarsphenamine in doses from 0.1 to 0.3 gm and bismuth salicylate in oil in doses from 0.1 to 0.2 gm. Because of the fact that bismuth was given concurrently with neoarsphenamine, it was deemed advisable to limit the dosage of neoarsphenamine to 0.3 gms.

The following other factors were also considered in the analysis of the cases:

- 1 The trimester of pregnancy in which the patient presented herself for treatment.
- 2 Whether she had received any antisyphilitic treatment prior to this pregnancy.
- 3 Whether she was a primipara or a multipara.
- 4 Whether the father was also syphilitic.
- 5 Subsequent pregnancies in the same cases during the five years of observation were also studied and the results of these pregnancies analyzed.

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Tables III-A, B show the tremendous incidence of syphilis among babies born of mothers in whom the duration of the

visible to analyze our results not from the standpoint of the period of pregnancy during which the patient was admitted for treatment, but from the total amount of antisyphilitic therapy administered during pregnancy. The figures show that a small amount of therapy is more effective early in pregnancy than late, and that the incidence of living syphilitic babies increases from 2.44 per cent in cases admitted during the first trimester of pregnancy to 19.75 per cent in cases admitted in the last trimester.

with living syphilitic babies. In all three of these cases the mothers had been suffering from a recent syphilitic infection during the first pregnancy. As a matter of fact, two of these women had appeared for treatment late in the first pregnancy with active secondary syphilis and had received totally inadequate treatment at that time. The total syphilitic tragedies were reduced from 28.26 in the first pregnancy to 11.94 per cent in the second pregnancy.

There were sixteen cases with three

TABLE VIII

Analysis of cases with two or more pregnancies while under treatment from 1930 to 1936

A									
	First Pregnancy			Second		Third		Fourth	
Total	92			92		16		2	
Nonsyphilitic living babies	66	71	74%	81	88	14	87	2	100%
Living babies with syphilis	17	18	47%	3	3	0	0	0	
Died before birth	5	5	43%	6	6	1	6	0	
Less than two months	4	4	35%	2	2	1	6	0	
Syphilitic tragedies	26	28	26%	11	11	2	12	0	

B									
ANALYSIS OF SECOND PREGNANCY									
	First pregnancy nonsyphilitic			First pregnancy with syphilis					
Total	66			17					
Nonsyphilitic living babies	61	92	42%	15	88	24%			
Living babies with syphilis	0	0		1	5	88%			
Died before birth	4	6	06%	0	0				
Less than two months	1	1	51%	1	5	88%			
Syphilitic tragedies	5	7	57%	2	11	76%			

Table VII shows that syphilis in the father as well as in the mother had a definite effect on the outcome of pregnancy. It also demonstrates that it is important that both parents receive antisyphilitic therapy in order to reduce the incidence of syphilis in the baby.

The reason for the disparity in Table VII is probably explained by the fact that where the father was also syphilitic the duration of syphilis in the mother was shorter, and hence the incidence of syphilitic babies and syphilitic tragedies was greater in that particular group of cases.

Ninety-two of the 617 cases under observation had a second pregnancy while they were still under treatment (Table VIII). The results of these second pregnancies demonstrate again the effectiveness of antisyphilitic therapy. Eighty-one or 88.04 per cent of these cases resulted in living nonsyphilitic babies. There were only three cases or 3.26 per cent

pregnancies while under treatment. Fourteen or 87.5 per cent resulted in living non-syphilitic children. Of the remaining two cases one was still-born and the second died at the age of one month.

The two cases with a fourth pregnancy while under treatment both resulted in normal nonsyphilitic babies.

Summary

1. 617 pregnant women all suffering from syphilis in its various stages were treated with neoarsphenamine and bismuth during pregnancy. Ninety-five per cent of the women were Negroes.

2. The outcome of each of these pregnancies was known, and all living babies were followed for a period of from two to five years and examined physically and serologically every three months.

3. The effects of antisyphilitic therapy on the outcome of the pregnancy was de-

Table V-A confirms the fact that as the syphilitic infection in the mother increases in duration the possibility of infection of the baby with syphilis becomes less likely. However, even in this group of cases when the duration of syphilis in the mother is over five years there is still an incidence of 19.28 per cent syphilitic tragedies, including 6.2 per cent living babies with syphilis.

It is interesting to note in Table V-B that antisyphilitic treatment is effective even in this late syphilitic group. In the cases with little or no treatment the percentage of living babies with syphilis was 13.7 per cent and this was reduced by moderate treatment to 3.85 per cent, in the cases with more adequate treatment

there were no cases of living syphilitic babies out of a total of ninety-three cases. Similarly the total number of syphilitic tragedies was reduced from 38.5 to an almost negligible 6.45 per cent.

The analysis of cases with respect to duration of syphilis in the mother and the amount of antisyphilitic therapy received during pregnancy demonstrates very clearly the importance of treating all pregnant syphilitic women regardless of the duration of their infection. It is also conclusively shown that the amount of treatment is also extremely important. The more treatment received by the pregnant syphilitic mother the fewer were the syphilitic babies and syphilitic tragedies. These tables also show that even a few injections of nearsphenamine and bismuth increase the possibilities of the babies being born alive and free from syphilis.

TABLE V

C Cases with syphilitic infection over five years duration (See Tables III-IV)

	A			Primipara			Multipara		
	306			25			281		
Total living nonsyphilitic babies	247	80	72%	19	76%		228	81	13%
Living babies with syphilis	19	6	21	1	4%		18	6	41%
Died before birth	18	5	88	2	8%		16	5	69%
Died less than two months old	22	7	16	3	12%		19	6	76%
Syphilitic tragedies	59	19	28	6	24%		53	18	86%

	B			Less than 4 injections nearsphenamine plus bismuth			4-7 injections nearsphenamine plus bismuth			8 or more injections nearsphenamine plus bismuth		
	109			104			93					
Total living nonsyphilitic babies	67	61	47%	93	89	42%	87	93	55%			
Living babies with syphilis	15	13	76%	4	3	85%	0	0				
Died before birth	12	11	91%	4	3	85%	2	2	15%			
Died less than two months old	15	13	76%	3	2	88%	4	4	30%			
Syphilitic tragedies	42	38	53%	11	10	58%	6	6	45%			

TABLE VI

Analysis of outcome of pregnancy with reference to the Trimester of pregnancy in which patient came for treatment

	First Trimester			Second			Third		
	41			244			332		
Total living nonsyphilitic babies	31	75	61%	185	75	81%	228	68	67%
Living babies with syphilis	1	2	44%	29	11	88%	65	19	57%
Died before birth	8	19	51%	17	6	96%	18	5	42%
Died less than two months	1	2	44%	13	5	28%	21	6	32%
Syphilitic tragedies	10	24	39%	59	24	19%	104	31	33%

Primipara and Multipara

Tables III-A, IV-A, and V-A show that the only reason that the incidence of syphilitic babies and syphilitic tragedies is apparently greater in the primipara is because the duration of the syphilitic infection is more apt to be much shorter in the primipara than in the multipara.

Table VI is merely supplementary to the tables analyzing the outcome of the pregnancy with reference to the amount of antisyphilitic therapy received. Naturally if treatment is begun early in pregnancy the patient will receive more treatment during pregnancy and the results will be much better than when therapy is begun later. However, the mere fact that a patient was admitted for treatment early in her pregnancy does not imply that she received adequate treatment because of the fact that many of these cases were delinquent and did not report regularly for treatment. It is, therefore, more ad-

TABLE VII—EFFECT OF SYPHILIS IN THE FATHER

	Syphilitic father			Nonsyphilitic father		
	88			143		
Total	63	71	59%	116	81	12%
Nonsyphilitic babies	14	15	91%	16	11	19%
Babies with syphilis	7	7	95%	8	5	6%
Died before birth						
Died less than two months old	4	4	55%	3	2	09%
Syphilitic tragedies	25	28	41%	27	18	88%

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Krimhilda

There are many reasons why an "only child" in a family is usually spoiled, that is, treated with over-attention, as if it were the center of humanity, the source of all light. But it is not true, as some educators claim, that this must necessarily happen to every only child. Parents who know their job will not make that mistake and those who bungle it will bring up the tenth child as horribly as they do in the case of the only one.

But Krimhilda was an only child and had been spoiled, that is she had been both pampered and treated with cruelty, seemingly opposite actions that always go together. While her every whim and wish for the most unreasonable things were, as a rule, quickly and fully satisfied, she would, often enough, tire her elders' patience so that they would punish her brutally for demanding something that she was entitled to and was easy to get. Of course, she was the tyrant of the family and, with some tears or shuffling of the feet, she would finally obtain whatever she desired.

That such upbringing was preparing her badly for life, these foolish and selfish parents had no idea. Nor could they dream that they were her worst enemies.

They were German-Americans and they believed in the greatness of everything that was German. Hence the child's given name, taken from the *Nibelungenlied* long before the "back to paganism" movement (It had to be spelled Kriemhilde or the pedantic father would protest.) Every one of her childish qualities was overrated—all children have some, mostly temporary, talents—and these parents expected her to be the greatest person on earth. All through her childhood they were blind and stubborn. Nothing daunted, they implicitly believed in her and were sure she would conquer yet and be recognized in the end. For long and tedious years and at a great sacrifice to her father, whose business was all but ruined, she studied music and singing—unsuccessfully. She was just as mediocre in drawing and painting and had to accept the passing marks in high school. Much was made of her "poetry" at the age of ten, but it turned out to be ludicrous

in her adolescent years. She was a complete failure, a real *ratée*. Much later, after their disillusionment, even the parents lamented that she amounted to "nothing" because she grew up to be an average girl.

But while they were still hoping for some miracle to happen, Krimhilda, whose eyes were partly and temporarily opened by rude life, began to understand the situation and to attempt to remove the great obstacle which had been thrown in her way. Although still groping in the darkness she did her best to become financially independent. She studied psychology and thought herself ready to function as a full-fledged psychologist. But, alas, her mind was ill-prepared for that. Nor was she, fortunately, able to find employment.

That was the time when I first met her. She had come to the International Congress on Mental Hygiene held in Washington in 1930, where I functioned as a scientific interpreter. She described her case both as a patient and as a candidate for a job and pleaded for help. But psychology was clearly a bad vehicle for her *psychoneurotic* personality and the Congress with its thousands of participants and its suggestive subjects could only harm her. My recommendations brought no permanent relief. She was not able to work, and sorely disappointed, she went back to live and quarrel with her parents, in the atmosphere which she abominated.

Then her real problem began—she suffered from *insomnia*.

There is *insomnia* and "insomnia." Her condition, at the outset, was of the latter type. Not that she slept in snatches without knowing it or without admitting it, as many do. But she deliberately made the greatest effort *not* to sleep. She loved to pose before herself as a very unfortunate person and make believe that she dreamed that some knight from the fable would come and rescue her. In the course of time she succeeded in not falling asleep even when she wanted to—then there was real *insomnia*. Bye and bye her night thoughts became more and more populated with sexual scenes. Then, all she did during her sleepless nights was to paint to herself all sorts of

area has a population of 738,975. Half a million people live within a radius of a mile's ride to Rochester's Main Street stores.

Rochester's industrial area has 1052 manufacturing establishments, each of which has an annual output of more than \$5,000 per year. With a capital investment of \$350,000,000, annual output of \$435,000,000. More than 180,000 are employed. The salaries paid in this area are \$32,328,510 and wages of \$88,898,053. Rochester proper has 935 industries with 11,458 officers and office employees paid salaries of \$31,088,460, and

wages of \$82,416,463.

It is estimated that there are approximately 380,000 employed within a fifty mile radius.

Rochester is a livable city, and possesses many characteristics conducive to the well being of the individual. The spirit of progress in Rochester is exemplified in civic affairs as well as in industrial developments. Rochester occupies a strong position among the cities in its class, and in friendly, hospitable spirit stands second to none. America has no better example of a progressive, loyal, happy community.

ROCHESTER BIDS YOU WELCOME!

A DOCTOR SUES THE PHONE COMPANY

Dr. H. D. Eichacker, maternity specialist, who lives and has offices in Ridgewood, Queens, has filed suit against the New York Telephone Company in Queens Municipal Court to recover \$190 which, he alleges, is owed to him for overcharges since 1923, says the New York *Herald Tribune*. He contends that he was billed for having a commercial telephone, whereas he should have been charged for a residential telephone, which is cheaper.

In his action, Dr. Eichacker said, he had the full support of more than 1,000 members of the Queens Medical Society, many of whom also have offices at their homes. His counsel is E. F. W. Wildermuth, of Forest Hills, Queens.

"Some time ago I read an article in the

American Medical Magazine relating to telephone charges of physicians," he explained yesterday. "I then realized I had been charged for a commercial telephone, whereas I should have been charged only for a private residence phone. I investigated and found that in 1923 the Public Service Commission had given a decision which upheld the contention that such a phone as mine was a private phone."

"I happened to look at the listing of my phone in the telephone directory and I found that after my name they had inserted the abbreviation 'off'. Now that was done without my knowledge or consent. There had never been any change in the contract. I had with the company, so as far as I was concerned there was no authorization for this altered designation."

A WOMEN'S FIELD ARMY

Under the above designation a movement is underway to start a membership drive to enroll at least 50,000 women soldiers in the New York division of the national organization to fight cancer. One of the main purposes of the army is to have organizations in the states throughout the country in order to establish the importance of state activities in the effort to control cancer. Miss Harriet W. Mayer is State Commander of the New York division of the army.

In an address before a conference of the Women's Field Army, Dr. Frank E. Adair, Secretary to the American Society for the Control of Cancer, gave an address which placed the facts relating to the incidence

of cancer among women showing that one of every eight women reaching the age of forty years may be expected to die of cancer under existing conditions.

As offsetting these unpleasant facts, he felt hopeful of great progress in the saving of life through education, explaining that under present conditions twenty-five per cent of women with cancer did the correct thing as ordered by doctors. Another twenty-five per cent do not follow doctor's advice. Twenty-five per cent never go to the doctor until it is too late and about twenty-five per cent are advised wrongly by doctors. These figures show the great importance of an educational campaign by women.

NUTRITIONAL REVIEWS I.**Protein Requirements**

HERBERT POLLACK, M D and HENRY DOLGER, M D, *New York City*
From the Metabolic Clinic of Dr H Lande and the Med Service of Dr G Bachr
Mt Sinai Hospital

The field of nutrition has never been subjected to so much misrepresentation as during the present period of economic stress. The distortion of facts by prejudice and sentiment has often served to obscure the fundamental knowledge which scientific investigators have produced. In the matter of protein requirements this disregard for readily available data has been especially flagrant. Viewing the wide range of protein consumption by the various peoples on the earth, from the almost exclusive meat diet of the Arctic inhabitants to the extremely low protein intake of the Orient (less than 10% of the total caloric intake) it must be evident that the standards for minimum protein requirements should again be brought to the attention of all.

Proteins are defined as nitrogen containing foodstuffs, and are found widely distributed in all foods, varying in concentration from a minimum of two per cent in the leafy vegetables to a maximum of thirty per cent in dried meats and fish. It is significant to point out that certain commonly used leguminous vegetables contain as much as, or even more protein than meat, namely soybean meal thirty-seven per cent, dried navy bean 22.5 per cent, dried lima beans eighteen per cent, dried peas twenty-five per cent. Other common foods rich in proteins include cheese twenty-eight per cent, macaroni thirteen per cent, peanut butter twenty-nine per cent, and whole wheat bread ten per cent. With such varied items it becomes obvious that it is

virtually impossible for the average individual to avoid consuming an adequate amount of protein. It must be remembered in addition to the total protein requirements there are certain specific amino-acids which are essential for growth and the maintenance of body vigor, namely tryptophane, tyrosine, lysine, and cystine, and these have been shown to be widely distributed in nature. Osborne¹ stated, "On chemical grounds, there is no more reason for dividing proteins into two groups of animal and vegetable proteins, than there is for making a similar distinction between carbohydrates."

Carl Voit² in 1881 first established the average diet as containing 118 grams of protein daily. This figure was arrived at by the statistical method which simply showed what the average worker consumed by habit. Similarly the standards set up by Rubner and by Atwater were based on consumption, and not on actual physiological protein requirements. Siven³ in 1901 was first to determine experimentally the minimum protein requirements, and he obtained nitrogen equilibrium on twenty-five-thirty-one grams of protein with 2700 calories. Chittenden⁴ in 1904, working with a group of active soldiers and athletes, was able to maintain nitrogen equilibrium with diets containing forty grams of protein, one-third of the old standard. Today, his then radical suggestion of sixty grams of protein as being adequate, is accepted universally.

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Dr H D Eichacker, maternity specialist, who lives and has offices in Ridgewood, Queens, has filed suit against the New York Telephone Company in Queens Municipal Court to recover \$190 which, he alleges, is owed to him for overcharges since 1923, says the New York *Herald Tribune*. He contends that he was billed for having a commercial telephone, whereas he should have been charged for a residential telephone, which is cheaper.

In his action, Dr Eichacker said, he had the full support of more than 1,000 members of the Queens Medical Society, many of whom also have offices at their homes. His counsel is E F W Wildermuth, of Forest Hills, Queens.

"Some time ago I read an article in the

American Medical Magazine relating to telephone charges of physicians," he explained yesterday. "I then realized I had been charged for a commercial telephone, whereas I should have been charged only for a private residence phone. I investigated and found that in 1923 the Public Service Commission had given a decision which upheld the contention that such a phone as mine was a private phone.

"I happened to look at the listing of my phone in the telephone directory and I found that after my name they had inserted the abbreviation 'off'. Now that was done without my knowledge or consent. There had never been any change in the contract I had with the company, so as far as I was concerned there was no authorization for this altered designation."

A WOMEN'S FIELD ARMY

Under the above designation a movement is underway to start a membership drive to enroll at least 50,000 women soldiers in the New York division of the national organization to fight cancer. One of the main purposes of the army is to have organizations in the states throughout the country in order to establish the importance of state activities in the effort to control cancer. Miss Harriet W. Mayer is State Commander of the New York division of the army.

In an address before a conference of the Women's Field Army, Dr Frank E. Adair, Secretary to the American Society for the Control of Cancer, gave an address which placed the facts relating to the incidence

of cancer among women showing that one of every eight women reaching the age of forty years may be expected to die of cancer under existing conditions.

As offsetting these unpleasant facts, he felt hopeful of great progress in the saving of life through education, explaining that under present conditions twenty-five per cent of women with cancer did the correct thing, as ordered by doctors. Another twenty-five per cent do not follow doctor's advice. Twenty-five per cent never go to the doctor until it is too late and about twenty-five per cent are advised wrongly by doctors. These figures show the great importance of an educational campaign by women.

NUTRITIONAL REVIEWS I**Protein Requirements**

HERBERT POLLACK, M D and HENRY DOLGER, M D, *New York City*
From the Metabolic Clinic of Dr H Lande and the Med Service of Dr G Baehr
Mt Sinai Hospital

The field of nutrition has never been subjected to so much misrepresentation as during the present period of economic stress. The distortion of facts by prejudice and sentiment has often served to obscure the fundamental knowledge which scientific investigators have produced. In the matter of protein requirements this disregard for readily available data has been especially flagrant. Viewing the wide range of protein consumption by the various peoples on the earth, from the almost exclusive meat diet of the Arctic inhabitants to the extremely low protein intake of the Orient (less than 10% of the total caloric intake) it must be evident that the standards for minimum protein requirements should again be brought to the attention of all.

Proteins are defined as nitrogen containing foodstuffs, and are found widely distributed in all foods, varying in concentration from a minimum of two per cent in the leafy vegetables to a maximum of thirty per cent in dried meats and fish. It is significant to point out that certain commonly used leguminous vegetables contain as much as, or even more protein than meat, namely soybean meal thirty-seven per cent, dried navy bean 22.5 per cent, dried lima beans eighteen per cent, dried peas twenty-five per cent. Other common foods rich in proteins include cheese twenty-eight per cent, macaroni thirteen per cent, peanut butter twenty-nine per cent, and whole wheat bread ten per cent. With such varied items it becomes obvious that it is

virtually impossible for the average individual to avoid consuming an adequate amount of protein. It must be remembered in addition to the total protein requirements there are certain specific amino-acids which are essential for growth and the maintenance of body vigor, namely tryptophane, tryosine, lysine, and cystine, and these have been shown to be widely distributed in nature. Osborne¹ stated, "On chemical grounds, there is no more reason for dividing proteins into two groups of animal and vegetable proteins, than there is for making a similar distinction between carbohydrates."

Carl Voit² in 1881 first established the average diet as containing 118 grams of protein daily. This figure was arrived at by the statistical method which simply showed what the average worker consumed by habit. Similarly the standards set up by Rubner and by Atwater were based on consumption, and not on actual physiological protein requirements. Siven³ in 1901 was first to determine experimentally the minimum protein requirements, and he obtained nitrogen equilibrium on twenty-five-thirty-one grams of protein with 2700 calories. Chittenden⁴ in 1904, working with a group of active soldiers and athletes, was able to maintain nitrogen equilibrium with diets containing forty grams of protein, one-third of the old standard. Today, his then radical suggestion of sixty grams of protein as being adequate, is accepted universally.

The Great War with its resultant dietary restrictions in the blockaded countries, afforded considerable reliable information as to the dietary requirements of various groups. The concept of adequate protein requirements at this time underwent an even further radical curtailment. The German people are reported to have ingested an average of thirty grams of protein daily throughout the war. Yet, Von Muller⁵ observed that all symptoms of protein deficiency, including "hunger edema" and anemia disappeared entirely in 1917 when a good potato crop assured an increased carbo-

hydrate and fat. The subject was maintained in nitrogen equilibrium with less than ten grams of protein daily. These facts were obtained from well-controlled laboratory and clinical observations substantiated from several sources. Similar figures were obtained independently by Smith,¹⁰ Rabe and Plaut,¹¹ Thomas,¹² and others.

Since one of the functions of an adequate diet is to maintain an economically efficient individual, it is significant to point out that mechanical efficiency is greatest with a high carbohydrate diet. The basis for this statement rests on the observation that the caloric expenditure from the specific dynamic action of protein cannot be utilized as energy for work. In contradistinction to this, the specific dynamic action of carbohydrate and fat can be utilized for work metabolism. The fact that the nonutilizable specific dynamic action of protein is about thirty per cent while that of carbohydrate and fat about five per cent, makes the caloric waste of protein more apparent. Athletic coaches and trainers have gained this knowledge from empirical observations. Experimental proof has been available for this dictum since 1866 when Pettenkofer and Voit¹³ published their now universally quoted experiment, summarized in the accompanying table.

This shows a sixty-three per cent increase in heat loss when work is done following a protein meal.

Having shown that the ingestion of protein decreases work efficiency, it can further be shown that musculature activity is independent of protein metabolism. Cathcart, Kennaway, and Leathe¹⁴ (1906) and Shaffer¹⁵ (1908) could demonstrate no increase in nitrogen excretion following short and long periods of intense work.

Certainly, Lusk,¹⁶ the outstanding American investigator, recognized these facts when he stated that, "it may be said that carbohydrates are the most economical of foodstuffs, both physiologically and financially. They are the greatest spacers of protein." He felt that mechanical work should be accomplished at the expense of carbohydrates and fats and not of the proteins, which should be required simply for wear and tear meta-

TABLE I

	Cals	% increase increased heat	Heat due to work
1 No food, rest	1976		
2 600 grams cane sugar, rest	2023	2.4	
3 600 grams cane sugar, rest	2868	45.2	845 cals
4 Protein, large amount, rest	2515	27.2	
5 Protein, large amount work	3370	70.5	855 cals

hydrate intake. Here the protein sparing action of carbohydrates became obvious on a grand scale.

Experimentally Rubner⁶ was able to confirm this observation and maintained nitrogen equilibrium with thirty-three grams of protein as long as the total calories equaled 2000 daily. He found that the addition of 500 calories in the form of sucrose to the official rations (1600 calories) was sufficient to maintain not only nitrogen equilibrium but also body weight. For a period of thirty-five years, Hinhede⁷ was able to maintain nitrogen equilibrium with sense of well-being and objective good health with only twenty-five grams of protein daily.

In acute experiments these figures were lowered still further. Petren⁸ was able to maintain nitrogen equilibrium with twenty grams of protein on a 1300 calorie diet in several patients. The lowest figures ever obtained to date were those of Duel, Saniford, and Boothby.⁹ In a really classically designed series of experiments, these investigators showed that the nitrogen excretion is inversely proportional to the caloric intake from

bolism Bayliss,¹⁷ the English physiologist, made the pertinent remark "Take care of the calories and the protein will take care of itself" A high protein diet

is a luxury and in times of economic stress is an unnecessary indulgence

20 E 76 St
111 E 88 St

References

- 1 Osborne *Science*, 28 417, 1908
- 2 Voit *Physiol des Stoffwechsels*, page 519, 1881
- 3 Siven *Skand Arch Physiol*, 2 308, 1901
- 4 Chittenden *Physiological Economy of Nutrition*, 1904
- 5 Mueller, V *Bull Ac Medicine* New York, 1926
- 6 Rubner *Zeit f d ges ex Med*, 72 99, 1930
- 7 Huhade *Skand Arch Physiol*, 30 20, 1931
- 8 Petren *J Bio Chem*, 61 355, 1924
- 9 Paul, Sanford, and Boothby *J Bio Chem*, 76 391 1928
- 10 Smith *Boston Med J* 1927
- 11 Robe and Alant *Deutsche Arch of Klin Med* 137 187, 1921
- 12 Thomas *Arch of Physiol*, page 249, 1910
- 13 Pettenkofer and Voit *Zeit F Biologie*, 2 537 1866
- 14 Cathcart, Kennaway, and Leaths *Quar Jour Med*, 1 416, 1908
- 15 Schaffer *American Journal Physiol*, Vol 22, 1908
- 16 Lusk *Science of Nutrition*, 4th edition, page 374 1928
- 17 Bayliss Quoted by Cathcart, *Nut Abst & Rev*, 1 6, 1931

WE ARE RUNNING ON LOW BRAIN POWER

The human brain, in spite of the fact that it has been evolving for millions of years, is still far from a finished product, and its future development holds out the bright promise of vastly increased brain power with which mankind may assail its difficulties, Dr Frederick Tilney, one of the foremost authorities on the evolution of the brain, declared in a paper presented before 1,000 persons at the New York Academy of Medicine on Feb 11

Dr Tilney, who is Professor of Neurology at the College of Physicians and Surgeons, Columbia University, traced the evolution of the brain and estimated that it is now about a quarter finished and therefore "in its early youth"

"By most of us the human brain is regarded as a finished product," Dr Tilney said. "Its long prehistoric record as we know it today, does not support this point of view. On the contrary, it makes it appear far more likely that the brain of modern man is only at some intermediate stage in the ultimate development of the master organ of life

"The brain element in which the greatest development has occurred is the frontal lobe. Its growth conveys an accurate impression of the manner in which the brain has responded to the demands made upon it. These demands continue to be made. The fact seems to point in a hopeful direction"

Palaeontological researches demonstrate the gradual expansion of brain power through the ages, a fact of "an inspiring significance," Dr Tilney continued

"It is possible to sense the irresistible force that has carried animal life onward and upward through the ages," he said "This force may be and probably still is at work. It may still carry us upward

"This viewpoint should make an urgent appeal for thoughtful consideration. In it are many suggestions concerning further human advancement as well as many possibilities for improvements and readjustments in human relations and behavior"

Dr Tilney explained that there have been periods in human history when the development of the brain appeared to have stood still and "perhaps even fallen behind" This apparent brake on its development is due to the "manifest lack of control over human nature," he argued

"Thus far, the human race has always managed to come back and go forward again after each of its self-inflicted catastrophes," he said. The dawn history of man was followed by a procession of great events which began in the early Egyptian dynasties and continued through the glories of Greece and the Roman Empire. Each of these civilizations contributed to the development of the human race

"This is an inspiring picture of almost uninterrupted human progress

"It might be easily questioned how many human brains actually reach full maturity," he said. "Many reasons stand in the way of full development, such as physical, social, educational or economic handicaps. It is doubtful whether the average human being ever develops more than a quarter of the brain's potential power"

Schenectady is again on the honor roll of cities having no fatal motor accidents in

the four weeks ending on Feb 13. Yonkers had only one

DIABETES MELLITUS

Factors Influencing Cause, Course, and Complications Analysis of 88 Cases

ESTHER TUTTLE, M D , *New York City*

Diabetes mellitus is recognized as being on an increase, and a definite knowledge of its cause is as yet an unknown factor

This study was made to determine (1) Influence of heredity on the incidence and course of the disease (2) Relation, if any, to age incidence (3) Part played by endocrine imbalance (4) Possible relation between gall-bladder disease, pregnancy, and diabetes mellitus (5) Complications resulting from hyperglycemia and hypercholesteremia (6) Effects of dehydration due to continued glycosuria (7) Effects of repeated insulin reactions on the arterial system

Influence of Heredity on Incidence and Course

Heredity appears as a factor in the incidence of the disease. In the group studied, 33.3 per cent definitely showed hereditary origin, 35.7 per cent showed no indication of hereditary origin, while thirty-one per cent were unknown. Of this last group, many of the children were of foreign birth, who knew little about their antecedents, and it is therefore safe to assume that in many of these cases the question of heredity would be definite. The analysis of these histories agrees with the opinion of other investigators that diabetes mellitus is an inherited disease.

Howard and Cammidge,¹ (1926) through their laboratory studies, showed that a tendency to high blood sugar can be transmitted in mice and in other animals according to the Mendelian law.

Van Noorden has pointed out the desirability of seeking information from diabetic patients not only of diabetic heredity, but hereditary incidences of other endocrine disturbances. He suggests that an inheritance of metabolic inferiority may strike at one organ in one individual and another in the next of kin. Wilder² states that figures for

heredity are doubled when the inquiry covers endocrine and metabolic conditions.

Further viewpoint of hereditary tendencies of diabetes mellitus is confirmed by Joslin.³ He states that the influence of heredity took on greater significance when children demonstrated that obesity was not a causal factor in diabetes and that forty-nine per cent of the first one hundred children with diabetes of ten years' duration have diabetic relatives.

The incidence of diabetic heredity has also been discussed by Priscilla White.⁴ She finds diabetic heredity increasing in adults. Out of one hundred adults, when first seen, diabetic heredity was twenty-nine per cent, but when seen five years later, additional relatives had appeared in the group, raising the percentage to thirty-seven per cent. If lives of patients are prolonged, the influence of heredity would be manifested more and more.

It is now the accepted theory that hereditary diabetes follows the Mendelian recessive pattern. Priscilla White from her studies concludes that diabetes is inherited as a Mendelian recessive based on the following:

- 1 Finding of greater evidence of diabetes in a diabetic than in a control population selected at random.

- 2 Demonstration that Mendelian law applied to a large series of case histories selected at random.

- 3 Check on case history by direct examination of blood urine of a small series of families diabetic and control.

If this be so, it gives hope that control of diabetes is possible. For if a diabetic marries a diabetic all the children are predestined diabetics. If a diabetic marries a carrier, one-half of the children are predestined to diabetes. If a carrier marries a carrier, only one-fourth are predestined to diabetes, but

if a diabetic marries a pure nondiabetic none of the children are predestined

Thus it would follow for proper control we must train our diabetic children to marry into pure nondiabetic families. We shall also carry these teachings to the children of diabetic parents because they are insidious carriers of the disease.

Age Incidence

In the series studied the average age of the males were 44.9 and the female 56.6 years. Ten per cent of the cases were below thirty and had diabetes mellitus at least ten years. Our analysis indicates, from a study of these cases, that the disease in the adult was of a milder type than that of a younger group. It was also found that a greater amount of insulin was required to control the disease in the younger group than in the older. Furthermore, in this young group, the blood sugar levels before the control of the disease were considerably higher than in the older group and subject to more marked variations.

Endocrine Imbalance as Contributory Factor

More advanced and recent studies of diabetes leads students of this disease to concur that diabetes is a disease of the metabolism not only involving chemical abnormalities of the body fluids, but also includes disturbances of the glands of internal secretion, which affect the metabolic processes and disorders of nutrition. Through rapid advancement in the knowledge of the physiology of the anterior pituitary gland, this gland plays an important part in carbohydrate metabolism and diabetes.

Lyll and Innes,⁵ in their researches, state that little clinical evidence seems to exist concerning the effect of pituitary activity on carbohydrate metabolism in general and on disturbed sugar metabolism of diabetes in particular. However, much experimental evidence is accumulating.

The demonstration of Houssay and associates⁶ is considered a classic in this respect. After removing the pituitary body from frogs and dogs, the removal

of the pancreas was not followed by the usual degree of diabetes. Some of the depancreatized animals showed no glycosuria and no hyperglycemia.

Great importance of the pituitary gland in relation to carbohydrate metabolism is recognized since the publication by Houssay and his collaborators of their experiments on the effect of removal of the hypophysis on pancreatic diabetes of frogs and dogs.

This work demonstrates that the principle symptoms of pancreatic diabetes namely, glycosuria, hyperglycemia, and acidosis were considerably ameliorated when the hypophysis was removed from totally pancreatectomized animals.

Houssay's work was confirmed by others, Barnes and Regan,⁷ also Kutz and his associates.⁸ The work of Lucke together with the others indicated the presence of a blood sugar raising factor in extracts of anterior lobe of the pituitary body. Lucke preferred to call this factor "contra-insular hormone." The preparation which he used—"praephyson," a blood sugar raising extract of the anterior lobe of the pituitary body—was injected into normal dogs and elevated the blood sugar. He injected diabetic dogs and caused a marked increase in blood sugar, when given to dogs that had pancreatic diabetes, it caused marked increase of blood sugar and when given to dogs with pancreatic diabetes treated with insulin, it produced hyperglycemia and increased the total secretion of dextrose. This substance, therefore, has the effect of an anti-insulin, for it prevented the insulin from lowering the blood sugar.

In the regulation of the blood sugar level, the liver with its store of glycogen occupies an important position. The pituitary hormone might reach the liver by way of the blood, either directly or indirectly, directly through the liver itself, indirectly by its action on some gland of internal secretion, the secretion of which would act upon the liver. In the latter category are the thyroid and suprarenal body since both are included in the blood circuit and since secretions of both have known effects on the storing of glycogen in the liver.

Lucke and his associates in their experiment found that the hormone is nor-

mally carried to the blood sugar centers and the brain stem by way of the cerebrospinal fluid

Since the action of the pituitary body has an effect upon the course of diabetes, can the course of the disease be modified by measures directed towards suppressing the activity of the pituitary body? This remains to be seen Hutton¹⁰ claimed to have secured favorable therapeutic results by intensive roentgen irradiation of the pituitary body Another method of suppressing the activity of the anterior lobe of the pituitary body may be to administer large amounts of so-called female sex hormone as Amniotin Wilder and Wilbur,⁹ however, state that no observation of the former have reached their attention and that of the latter, there do not seem to be any reports of this in the clinical literature on diabetes

Let us follow the chart in the series of diabetics and note what relation endocrine imbalance may have to the cause and severity of diabetes mellitus Of seventy-two women in the series, thirty-eight had the onset of diabetes mellitus and the period of the menopause coincide Of the latter, sixteen had known cases of diabetes in their family, ten could not trace their family history, while twelve gave negative hereditary histories

During the period of menopause, there is a cessation of ovarian activity and with it a disturbance in the function of the pituitary gland and suprarenal gland There is an imbalance of the endocrine action and the individual must pass through a period of readjustment The disturbance of the suprarenal gland manifests itself by nervous systems, presented by hot flushes, chills, and parasthesias The pituitary malfunction is demonstrated by periodic headaches and changes in metabolic processes found at this time—namely, lowered carbohydrate tolerance It is at this period that females who, through inheritance are potential diabetics, become actual diabetics

Since we have noted previously that the metabolism of carbohydrates is in some way dependent on the function of the anterior lobe of the pituitary body (demonstration of Houssay, etc) and since we note that in the menopause there is malfunction of the pituitary, thus

disturbing the carbohydrate tolerance, it becomes more apparent that the menopause can contribute to the cause of diabetes mellitus, particularly those who by inherited tendencies are potential diabetics

Another factor which must be stressed and which points to some etiological factor connected with the endocrine system, is the preponderance of females amongst the obese Joslin¹¹ stresses the association of obesity with that of diabetes mellitus Seventy-seven per cent of his cases were overweight at the onset of the symptoms Lyon¹² leads to the same conclusion showing in one of his series 377 per cent females and only 83 per cent males

In referring to our group we find the percentage of obesity corresponds quite closely Of the entire number 797 per cent were overweight—71.6 per cent female, 8.1 per cent male

Joslin¹³ states that diabetes has advanced particularly in women of middle age, because with the menopause obesity is so universal and in the etiology of the disease, obesity is such a predisposing factor An increasing population of diabetic patients must therefore be expected

Possible Relation Between Gall-Bladder Disease, Pregnancy, and Diabetes Mellitus

Review of the clinical literature does not shed much light on the possible relation between diabetes mellitus and the diseases of the gall-bladder Hekimian and Vogel¹⁴ state that although association of gall-stones and diabetes is repudiated to be high, their studies of a nondiabetic group showed a slightly higher frequency of this condition than the diabetic

Study of gall-bladder disease indicates a disorder of metabolism resulting in high cholesterol excretion in the bile. Likewise during pregnancy there is an interference with the normal physiological processes, which seriously affect metabolism During pregnancy the cholesterol retention in the blood is high, particularly the last three or four months The suprarenal cortex becomes laden with cholesterol during pregnancy, but the

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bile cholesterol is low. After parturition the excess is disposed of by excretion in the milk probably to increase the low cholesterol content of the child's blood. The amount of cholesterol in the bile rises two or three times the normal level and crystals of cholesterol may be deposited in the bile passages.

In the analysis of this series, it is noted that of thirty-seven women with multiple pregnancies six (16.2%) showed history of gall-bladder trouble. Since we know that uncontrolled diabetes results in a rise in the blood cholesterol and that gall-stones result from a high cholesterol secretion in the bile, associated with diminished formation of bile salts, the question can well be raised whether the metabolic disturbances due either to pregnancy or gall-bladder disease may be a contributory cause of diabetes.

Effects of Dehydration Due to Continued Glycosuria

There is apparently some important relation between those patients who over a long period of time have continued to have glycosuria and the degree of arterial change as demonstrated by E.K. findings, oscillometric readings, and fundus examination.

Sugar usually appears in the urine when the blood sugar reaches level of 170 mg per 100 c.c. There are however many exceptions and sometimes blood sugars of 200 and 300 mg and higher are found without any demonstrable glycosuria.

It would seem in this study that the important factor is in the prolonged and continued loss of sugar with its polyuria resulting in dehydration rather than the amount of sugar lost at any one time.

Mosenthal¹⁸ made some significant observations resulting from a study of the effect of constant loss of sugar through the urine. He states that vascular degeneration is prone to occur in the protracted cases of diabetes and are most common in cases which are the outcome of inadequate treatment for ten to fifteen years. These are the patients who have had prolonged glycosuria and polyuria which results in dessication. This dessication may have a toxic influence favoring the development of arteriosclerosis and cataracts.

Hyperglycemia, according to Mosenthal, does not damage the tissues. His findings have support in the researches of Kirby, Estey, and Weiner and also those of Dr. Alexis Carrel in his work on the relation of bacterial growth to concentration of sugar. Warren says "a high blood sugar level is not in itself injurious to the heart muscle." He also states that all observations point to the conclusion that the concentration of sugar in hyperglycemia range does not favor bacterial growth.

Mosenthal¹⁸ emphasizes the point that when hyperglycemia is accompanied by hyperglycosuria, then the resultant polyuria and dessication are responsible for most of the serious complication in diabetes mellitus. In his experience, diabetic arteriosclerosis resulting in gangrene, angina pectoris, and cataracts occur almost solely in those patients who have been careless about their diet and insulin control for a period of five years or longer. The damage entailed through polyuria and glycosuria is considerable—dehydration, dessication of the tissues, hemoconcentration, malnutrition, acidosis, diminished oxygen capacity of the blood, and decreased blood supply to the skin, heart, and muscle.

The above findings are corroborated in our study of this series and the following data was obtained. Out of eighty-eight cases, eighteen were essentially sugar free throughout the course of the disease and they were conspicuously the mild or well-controlled patient with no definite evidence of arteriosclerosis or myocardial degeneration. Twelve were omitted because of indefinite classification. Of the balance all showed continued glycosuria. It is in this latter group that the most severe degenerative symptoms are prominent. Of this number we find fifty-eight (82.8%) showing abnormal E.K.'s. Of this same group, oscillometric readings of the dorsalis pedis and posterior tibialis arteries indicated a definite arteriosclerotic change while a few oscillometric readings were normal. As regards definite retinal change we find the following forty-nine cases or seventy per cent show fundus arterial degeneration. There were in this group of abnormal retinal changes ten who had cataracts.

Many observers are of the opinion that hyperglycemia is a cause of hypertension. There are others however who do not believe that the association of increased blood sugar and an elevated arterial tension is a common one. Mosenthal is of the latter school. He believes that an excess of sugar in the blood will not result in an increase in blood pressure over short periods of time. From his clinical material his deductions are that for a period of about seven years hyperglycemia will not result in hypertension.

In this series under analysis, our observation confirmed Mosenthal's hypothesis in that there does not seem to be any relation between the patient's arterial pressure and the amount of sugar in the blood.

Effect of Repeated Hypoglycemia Due to Insulin on Arterial System

The great need of heart muscle for glucose has been emphasized by our cardiologists and physiologists for many years. Cruikshank¹⁷ by his work shows the importance of providing the diabetic heart with a continual supply of available energy.

It is difficult to determine the carbohydrate requirement of the heart. There is evidence that a diseased heart requires more carbohydrate than a normal heart. Hence, lowering the blood sugar by rigid diet or insulin or both, may aggravate the cardiac condition markedly.

It is now recognized that the indiscriminate use of insulin, especially in the older diabetic, with arteriosclerosis is fraught with danger. Lowering the blood sugar in an already impoverished heart precipitates the progress of the sclerosis. The repeated hypoglycemic reactions caused by frequent insulin reactions in an apparently normal heart, leads to physiological imbalance and the development of myocardial damage through changes in the intima of the arteries. This result may be due either to anoxemia or the effect on the heart from sudden shocks due to the fluctuations from hyperglycemia to a hypoglycemia.

In view of the importance of arteriosclerosis and its complications in diabetes, Sherrill¹⁸ analyzed a series of 425 cases of diabetes with particular reference to

cardiac disease. He calls attention to the danger of hypoglycemia in arterial sclerotic diabetics on account of the production of myocardial damage. The average diabetic patient is satisfied with 120 or 150 gms of carbohydrate. High CH diets which necessitate high insulin dosage predisposes the diabetic to rapid fluctuations from hyperglycemia to insulin shock and caution should be employed.

In Sherrill's series those with angina pectoris showed that diabetes as an etiological factor in angina is very well shown by the fact that angina began on an average of 91 years after the onset of diabetes. From the standpoint of prognosis, considerable importance must be attracted to the occurrence of the two. With increasing longevity of diabetes during ten years of insulin treatment coronary disease is fast taking the place at the head of the list of diabetic complications.

Nathanson¹⁹ on 100 autopsied diabetics found forty-six per cent cardiac pathology present and of these, a characteristic cardiac lesion was coronary sclerosis. In comparison with nondiabetics he found that coronary disease is approximately $6\frac{1}{2}$ times more frequent in diabetics above the age of fifty than in the general population.

What does the analysis of our series show with reference to the problem of insulin reactions? Most of the latter group showed definite evidence of coronary disease as indicated by sub-sternal pain or radiating pain produced by exertion, and through EKG reports. The exact number is forty-two representing 47.7 per cent and is close to the findings of Nathanson.

It has been observed, since the introduction of insulin, that with more rigorous treatment of the diabetic, the cardiac manifestations may become more severe instead of improved. Susskind and associates²⁰ showed in their studies that in diabetes with well-controlled blood sugar levels considered normal, the elderly diabetics developed an increase in cardiac manifestations. This was indicated by anginal attacks, arrhythmias, and electrocardiographic changes. If the blood sugar was allowed to rise by a reduction of insulin or through increased diet, these manifestations promptly disappeared.

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April 1, 1937]

The conclusion is reached that higher blood sugar values are often best in elderly diabetics with cardiovascular status and that it is best to undertreat elderly diabetics, especially if they have a history of coronary arterial pathology

Effects of Hyperglycemia and Hypercholesterolemia

As outlined above, we have considerable evidence from clinical studies that diabetes mellitus often results in major cardiac disturbances. Today, while the use of insulin has greatly eliminated the dangers of malnutrition, infection, acidosis, and coma, it has however brought up a new problem. This problem is vascular diseases which are playing a prominent part in the complications resulting from diabetes mellitus. The maintenance of an adequate amount of sugar in the blood stream is necessary for tissue energy. The blood of the diabetic has more than the required sugar for tissue metabolism, yet this sugar is unavailable for its use. This excessive sugar instead has a toxic effect. The skin of the diabetic has a lowered resistance and heals poorly, as sugar rather than glycogen is found in it. It is possible, as Klotz pointed out, that the media of the arteries degenerates from a lack of it. Insulin has for its purpose the property of lowering this sugar and making it available for use by the body.

From a study of our series we find that most of the patients having the disease for a number of years showed disturbances of the vascular system to a varied degree, depending upon the length of the disease. This is equally true of both male and female. Out of eighty-eight cases sixty-five or 73.8 per cent show vascular disturbances.

Joslin²¹ makes a similar prognosis. He states that diabetes of five years duration or longer is practically always accompanied by some degree of arterial change. He strongly favors the theory that the usual increase in cholesterol in the diabetic's blood is responsible for the vascular change.

This is likewise the viewpoint held by Aschoff who believes that an increased amount of cholesterol in the blood is one of the prerequisites for arteriosclerosis.

Within recent years, greater emphasis is being laid on cardiovascular complications of diabetes mellitus. In 1930 there were 1784 deaths in New York City in diabetic patients of which more than one-half were due to cardiovascular disease.²²

The relation between diabetes and cardiac pathology has been noted by a number of observers on necropsies as early as 1864. Seegen through his studies called attention to this close association. Similarly Huchard and Meyer in 1888 emphasized this relationship. In 1907 Brunton also observed frequency of heart involvements in diabetic patients. More recently Wilder in 1926 and Blotner in 1930 indicated that a large percentage of autopsied diabetics showed marked coronary disease.

Undoubtedly it is true that statistics show a greater number of persons suffering with vascular diseases among the diabetics than were found before 1922. This may be explained on the theory that the present day diabetic more frequently lives into the arteriosclerotic period of life by virtue of insulin. However, statistics taken indicate that the group with diabetes and cardiac condition show a higher mortality by eighteen per cent.

With a broader knowledge of the part played by insulin and the blood chemistry of the diabetic, we have a better understanding of this disease which furnishes new concepts for treatment. While in preinsulin days the greater danger to diabetics was acidosis, today the danger is in the complications of the vascular system. It is hoped that as the discovery of insulin greatly reduced the mortality from diabetic coma, so it is hoped that in the near future, our better understanding of diabetes mellitus will help to prevent the diabetic from dying prematurely from a complication of arteriosclerosis.

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References

- 1 Howard and Cammidge *Journal Genetics*, 16 387, 1926
- 2 Wilder *Mussey's International Medicine*, 1021, London, 1932
- 3 Joslin, Elliot P *Jour Med*, 209 519, 1933
- 4 White, Priscilla *Bull Ac Med* 10 347, 1934
- 5 Lyall, Alex. and Innes, J *Alex. Lancet* 1 318, 1935

- 6 Housay, B A *Endocrinology*, 15 511, 1931
- 7 Barnes, B O and Regan, J F *Ibid*, 17 522, 1933
- 8 Kutz, R L, Selve, Hans, Densted, O, Bachman, C, Thompson, D L, Collip, J B *Proceedings Am Physiological Section*, March 1934
- 9 Wilder, Russel M and Wilbur, Dwight L *Arch of Int Med*, 55 304, 1935
- 10 Hutton, J H *Illinois Med Jour*, 64 539, 1933
- 11 Joslin, Elliot P Lea and Febiger, p 61, 5th Ed 1935
- 12 Lyon, Prof *Lancet*, 219 293, 1930
- 13 Joslin, Elliot P *J A M A* Vol 97 Aug 1931
- 14 Hekimian, Ivan and Vogel, Samuel A N Y

- STATE JOUR. M., 34 385, 1934
- 15 Mosenthal, H O *Am Jour Med. Sc.*, Dec 1928
- 16 Mosenthal, H O *J. A. M. A.*, Aug 17, 1931.
- 17 Cruikshank E. W H *Am Jour Physiol* 90 322, 1929
- 18 Sherrill, James W *California and Western Med.*, 38 39, 1933
- 19 Nathanson, M H *Journal Lancet*, 54, 211, 1934
- 20 Susskind S, Katz, N N, Strouwer, S., Roberfeld, S H *Arch Int Med*, 51 122 1933
- 21 Joslin, E P *Ann Chem Med*, 5 1061, 1932
- 22 *Bull Dept of Health*, N Y C. 20.357, 1931

SALMON MEMORIAL LECTURES

The Salmon Committee on Psychiatry and Mental Hygiene invites the medical profession and their friends to The Fifth Series of Thomas William Salmon Memorial Lectures to be given by William Healy, M.D., Director, Judge Baker Guidance Center, Boston, April 9, 16 and 23, (8 30 P M) at The New York Academy of Medicine

PERSONALITY—FOUNDATIONS, DEVELOPMENT AND WIDENING HUMAN RELATIONSHIPS

April 9—"Foundations of the Personality ructure"—Mutual concern of philosophy and science with the nature and functioning of the self and the personality The two not identical The fact of continuous identity From the beginnings of life circular response between individual and environment Mind-body relationships—brain-structure and personality Original endowment The physiological foundations Personality to be regarded as historical development. Reactive tendencies developed by early experiences Critique of the many modern personality tests The modern case study evaluating the total situation "Biography—the Literature of Personality"—weaknesses The diverse foundations uncovered in an example of a thoroughly developed study of personality

April 16—"The Developing and Emerging personality"—Always multiple causation Cross-section of soma and psyche fails to tell the story Genetic viewpoint. Heredity Critique of body-build The significance of other physical factors General elements of the environment as part of the story Situations of and in the family—as these have emotional concomitants, with differences sometimes even for twins The early training period The gradually developing parent-child relationship Personality-intelligence correlations Special

types of personality related to handling of early instinctual drives and pleasure experiences Accidents and diseases affecting central nervous system Biochemical factors energizing or inhibiting The abnormal personalities Experiences associated with emotional conditionings—resultant freedom of self-expression, or guilt, fears, anxieties Satisfaction, frustrations or sublimations of instinctual drives Types of mental traumata. Adolescent turmoil sometimes shaping personality characteristics General establishment of personality patterns Personality as representing the individual's economic solution of his life situation.

April 23—"Personality in Widening Human Relationships"—General interest in personality Culture, mores and personality—e.g. the concept of "a gentleman" Social life demanding repressions Ideas held determining personality characteristics Problems of personality involving family life, work out-put, employer labor relationships, political motivations, schemes of government, international questions Types of personality in power—leaders and executives Economic motives largely personality drives Personality of extremists. Releases of aggressive motivations other than in anti-social ways What hope for personality modifications? The possibility of general education concerning the foundations of personality Ordinary lack of insight into drives, urges, attitudes Any value of education into awareness? At what stage in the educational career should educators deal with the foundations and the problems of personality? At tractions of this field for psychiatrists their training The growth of clinics where personality problems are dealt with and the results of their work The psychiatric social worker dealing with family problems The contrast between advancement in things material and backwardness in man's handling of his social self What promise for a better planned world?

MEDICAL RADIO BROADCASTS

The Medical Information Bureau of the New York Academy of Medicine announces the following broadcast from Station WABC and the Columbia network

Wednesday, April 7 4 45 P M—*Speaker*
Dr James Ralph Scott, Chairman New York Diabetes Association *Subject*
"Summer Camps for Diabetic Children"

PENDULOUS AND HYPERTROPHIED BREASTS

The Operative Treatment

CLIFFORD F. DOWKONTT, M.D., *New York City*

In this article the writer desires to outline briefly the results of certain recent improvements in technic of the operative treatment of pendulous and hypertrophied breasts. No detailed description of the various steps involved has been attempted because (1) such description would not interest the general practitioner and (2) in the absence of the necessary experience in this particular field, it would be of little value to the surgical specialist.

The definite psychic improvement in a woman who has suffered the embarrassment of large unsightly breasts and has had them returned to their normal size, position, and youthful contour is indeed gratifying. However the exact reverse holds true when a favorable cosmetic result has not been obtained. Accordingly this operation is one which should be approached with caution by the surgeon and probably should not be attempted at all unless preceded by the experience gained by an apprenticeship or otherwise.

Several years ago an original technic for pendulous breasts was outlined¹ and later a modification of it was described.² Since then still further improvements have been made in the operative methods followed with a view to making the correction still more practical.

In the first place, the line of suture has been considerably shortened so that the resulting scar is now located only along the areolar border and on a line extending vertically downward from it to the inferior mammary sulcus. This scar habitually heals well and eventually almost disappears. Moreover the fact that there is no scar whatever above the level of the areola or outside the median line of the breast below this level makes possible the wearing of the lowest-cut gowns or costumes.

Secondly, by an adaptation of the familiar wedge-shaped excision of gland long used for the removal of cysts and

other benign growths, it has been possible to limit the correction of even markedly prolapsed breast to a single operation.

Other changes have been directed toward making the ordeal of operation simpler and easier for the patient. Thus the time of operation has been shortened to an hour and a half, avertin is used as a basal anesthetic thereby minimizing the after-effects of the anesthesia, the duration of hospitalization has been reduced to two days, and finally the suturing and dressing have been simplified so that if necessary, patients coming from a distance may return home a few days after operation to be cared for subsequently by their own physicians.

There are two questions which generally occur to a woman contemplating plastic surgery of the breasts. First she wants to know whether the operation might not cause cancer. This is prompted by a very natural dread of the disease. Of course the technic being fundamentally that long used for the excision of local growths, this cannot be the case. Moreover as outlined in some detail previously,¹ there are reasons for believing that the return of the breast to its normal position has beneficial effects on the physiology of the gland. At least excised gland cannot give rise to cancer so that theoretically the incidence of cancer in glands so operated upon should be reduced by the amount the breast has been reduced in size.

The second question concerns the retention of the normal nursing function. In this connection I gratefully acknowledge a personal communication from Dr. Ralph A. Hurd of New York City who attended a woman in confinement several years after a plastic reconstruction of the breasts had been performed. Dr. Hurd writes in part as follows: "You will be interested to learn that milk in generous quantities appeared in the breasts at the usual period after confine-



Fig 1 Before operation. The breasts extend $1\frac{1}{2}$ inches below the umbilicus

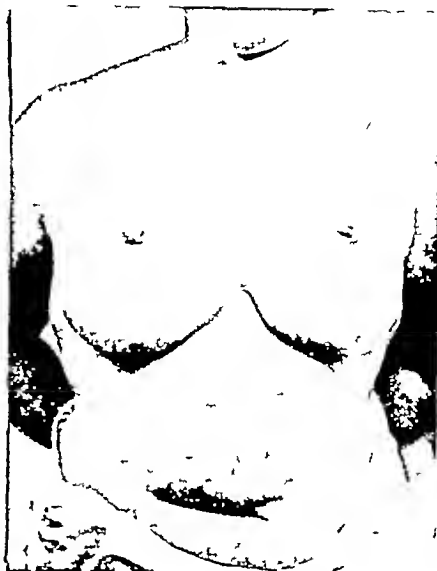


Fig 2 One year after the removal of nearly six pounds of excess tissue at a single operation.

ment, and that it could be freely expressed from the nipples"

Summary

It is hoped that the reader has gained from the foregoing remarks two conclusions, namely (1) The alleviation of the physical discomfort and mental anguish caused by enlarged breasts can be ac-

complished by a safe and practical operation (2) This operation should be performed only by the experienced

133 E. 58 St

References

- 1 Dowkontt, Clifford F *Med Jour and Rec*, December 4, 1929
- 2 *Idem* *NEW YORK STATE JOUR MED*, 31 264, 1931

A LAY VIEW OF A MEDICAL ATTITUDE

Medical men are very strict in discipling themselves, but they have no wish to have others do it. This natural attitude is the subject of an editorial in the *New York World Telegram*, which runs

THAT ETHICAL LINE

The Kings County Medical Society adopted last week a resolution declaring its members to be "unalterably opposed to fee-splitting by either individuals or organizations in any form"

A few days later the same medical society refused to pass a further resolution calling for legislation which would make fee-splitting a misdemeanor

Here's one more instance where the organized part of a great profession is willing to proclaim ethical standards by canon, but

unwilling to have those standards enforced by law

Bar associations long clung to a similar convenient distinction between ethics and statute. But of late years the organized bar has wisely awakened to the need of putting law behind some of its most ignored canons of professional ethics

The same week the Kings County Medical Society drew the line against statutory attack on fee-splitting, Assistant District Attorney Botwin's prosecutions in the ambulance-chasing field led to the arrest of another physician, the third arrested and the twelfth involved in the current accident fraud probe

What are the medical societies going to do about the increasing evidence of medical faking in fraudulent accident claims? Adopt more toothless resolutions, or do some genuinely resolute housecleaning?

SURGICAL TREATMENT OF EMPYEMA

KENNEDY CREEVEY, M D, *Cambridge*

The study of acute empyema is of interest to medical and surgical practitioners alike as it occurs in the practices of both. It is of particularly live interest to the surgeon because, *first*, it carries a heavy mortality, roughly twice that of acute appendicitis,¹ *second*, the manner of treatment has a very marked effect on this mortality, *third*, no single method of treatment has yet gained universal approval.

The significant relation between treatment and results was clearly demonstrated by experience in the U S Army Hospitals during the war when the mortality in similar cases was reduced from around thirty per cent to about ten per cent² by the application of a principle which is now well-known. This principle is that open drainage of an empyema in the presence of a still active pneumonia or in the absence of walling off of the empyema cavity is harmful or fatal to the patient. We hardly need to mention here the physiological basis for this, demonstrated by Graham and Bell³ in 1918, that the normal mediastinum is flexible so that the pressure changes involved affect both lungs to some extent, this may easily reduce an already impaired vital capacity to the point of causing death.

With the general recognition of this fact, then, around 1920 began the most recent era in treatment of empyema, the principles of which are, as agreed by all authorities (1) adequate drainage and (2) avoidance of open drainage in the early stages.

The application of these principles has, so far, not led to uniformity in the method of treatment. In the literature of the past ten years, there are reports advocating three different methods—(1) repeated aspiration, (2) closed drainage, and (3) open drainage. Inasmuch as the final evaluation of these has not been reached, further data on the subject is of interest.

With these considerations in mind, we propose to add to the record the experience of the Mary McClellan Hospital. Although this report deals with a small series, it has, perhaps, an added significance in that there are relatively few such reports from rural hospitals.

Since the opening of the Hospital in 1919, thirty-seven cases have been treated with four deaths, a mortality of 10.8 per cent. The age of incidence is distributed between two and seventy-one years, with half of the cases under sixteen years of age. Twenty-two (60%) were caused by pneumococcus, seven (20%) by streptococcus.

The treatment has been quite uniform—rib resection and open drainage in thirty-four cases, intercostal open drainage in a two year old infant who recovered, closed drainage in a thirteen year old girl who was too ill for rib resection, and died, no operation in one case who remained cured after three taps. One case, a boy of thirteen, who had a synchronous pericarditis, had closed drainage as a preliminary to rib resection.

The time for operation is adjusted to the clinical evidence of subsidence of pneumonia, evidence of walling off as indicated especially by the presence of thick pus. In the usual case, with a large collection of pus, a section of the seventh or eighth rib near its point of greatest convexity is removed, after reflection of the periosteum. No further precaution is used to prevent osteomyelitis. To insure adequate drainage, two tubes are usually inserted. Postoperatively the patients are encouraged to use blow bottles or balloons. Irrigation with Dakin's solution is employed rarely, in cases which are not clearing up satisfactorily.

The preferred anesthetic for the sicker cases is, of course, local one per cent novocain. Sixteen of the series, however, received ether and eleven nitrous oxide. In view of the frequently ex-

Read before the Washington County Medical Society, Hudson Falls, October 6, 1936

pressed opinion against the use of ether in all types of pulmonary infection, it is interesting to note that no particular bad effects can be traced to it here. Two of the sixteen died, but one of these lived until five months later, while the other was a sixty-six year old man with a multilocular abscess, streptococcus infection, and evidence of mitral valvular disease of the heart. He apparently died of an embolus, eight days after operation. Except for immediate vomiting, the post-operative reactions after ether have been in general no more severe than after other anesthetics.

The average number of days in the hospital was fifty-two. Two cases had secondary operations, one of these died of chronic empyema.

Of the nonfatal complications, the following deserve mention. Osteomyelitis of the rib, one, abscess of gluteal region, one, abscesses of neck, one, pericarditis, one.

Death occurred in the following four cases.

1 A twenty-one year old man was admitted three weeks after the onset of an acute illness characterized by fever and diarrhea. He had a multilocular empyema at the right base drained five days later. He failed to improve, and within ten days developed a serous effusion in the left pleura which was tapped. X-ray demonstrated satisfactory drainage of the empyema, but he developed pneumothorax on the left and died forty-four days after operation. Repeated cultures and sputum examinations were inconclusive, it is felt that he probably had tuberculosis. No autopsy was permitted.

2 A sixty-six year old man, admitted fourteen days after the onset of a relatively mild pneumonia, gradually developed empyema at the right base, rib resection thirteen days after admission. He showed the expected improvement but died very suddenly on the nineteenth postoperative day. He showed evidence of arteriosclerotic heart disease, as well as systolic and presystolic murmurs. Death was probably caused by an arterial embolus. The infecting organism was a pneumococcus. No autopsy was obtained.

3 A twenty-eight year old man was admitted six weeks after the onset of lobar pneumonia with a large empyema on the left. Rib resection was done four days after admission. Postoperative course was un-

satisfactory, the wound was reopened twice in 120 days, and the patient was discharged in good condition after nearly six months. The hospital was unable to follow this case but he is known to have died at home about four months later. It is assumed that death resulted from chronic empyema. The only organism cultured from the wound was staphylococcus aureus.

4 A thirteen year old girl was admitted in poor condition two weeks after the onset of pneumonia. She developed a purulent effusion which was tapped repeatedly, and finally drained through a tube. She died twenty-three days after admission. The infecting organism was pneumococcus.

In brief then we may summarize our series as follows: thirty-seven cases treated by open drainage, with a mortality of eleven per cent.

To obtain comparative figures we turn to the literature on this subject during the past decade. In so doing, we notice with interest that many of the articles are presented with the purpose of demonstrating the advantages of one or the other of the three different methods of treatment mentioned above—repeated aspiration, closed drainage, and open drainage.

The repeated aspiration method, of course, consists of tapping the empyema through a needle as often as sufficient fluid accumulates. This was the method of the nineteenth century when results were very poor.⁴ Elaborations on this method in recent years have included aspiration followed by injection of some disinfectant^{5,6} and injection of air.⁷ Although good results have been obtained in a few small groups of cases, it is distinctly the consensus of opinion that the majority of cases will not yield to tapping, chiefly because the thick pus and fibrin which accumulate cannot be drawn through a needle.

One illuminating fact is accentuated by the study of this method and has also been noted elsewhere: there are a few favorable cases of empyema which will clear up after only one or several tapplings.

The closed drainage method was introduced in this country about 1919.⁸ The essence of this method is the introduction of a tube into the cavity through an airtight wound, and the connection of

this tube with a closed system of fluid which will exert suction, thus emptying out the pus and drawing out the lung to obliterate the cavity. It is not our intention to review all the arguments for and against this type of treatment. Suffice it to say that it offers one great advantage—the obviously beneficial effect of the suction, and one great disadvantage, that the tube tends to plug up with fibrin.

The latter consideration would appear at first sight a mere detail, but it is a serious objection in practice. A plugged tube does not give adequate drainage

ally a complication of pneumonia, and since most fatal cases of empyema are associated with one or more other conditions which may be fatal in themselves, mortality statistics, even on large groups of cases, are subject to marked variation in interpretation.

The mortality in infants under two is so high that many authors report it separately. We have included this subdivision in the accompanying table.

It is a surprise to find any comparative figures so nearly identical. This very unanimity however is, we believe, most

TABLE I

Author	Date	Under 2 years			Over 2 years		
		Cases	Deaths	% mortality	Cases	Deaths	% mortality
Hart ⁹	CLOSED DRAINAGE						
Rienhoff & Davison ¹⁰	1929	13	1	8	50	5	10
Singleton ¹¹	1928	22	11	50			
Douglas ¹²	1930				81	5	6.3
Hudson ¹³	1930	13	2	15.4	35	5	10
Ladd & Cutler ¹⁴	1930				32	6	18.7
Packard ¹⁵	1924				42	12	28
Binney ¹⁶	1931				50	1	2
Foster ¹⁷	1924				35	5	14.2
	1929				153	17	11.1
		48	14	29.2	478	53	11.1
Mason ¹⁸	OPEN DRAINAGE						
Frank ¹⁹	1935				103	8	7.76
Rienhoff & Davison ¹⁰	1934				50	2	4
Hudson ¹³	1928	24	7	29.2			
Ladd & Cutler ¹⁴	1930				40	5	12.5
Packard ¹⁵	1924				226	38	15.9
Cohen ²⁰	1931				10	1	10
	1932				123	11	9
		24	7	29.2	552	62	11.2

Of more value than general discussion for evaluation of the method is a study of the results obtained by it compared to those obtained by the more widely used open drainage, usually with rib resection.

The statistics on this subject as presented in the literature up to date are relatively few and do not warrant the deduction of fine drawn conclusions. We have, however, been interested in tabulating the mortality statistics of cases treated by the closed method and those treated by the open method. In doing this we have limited ourselves to series which are as nearly strictly comparable as possible; they are all cases treated in this country later than 1920.

It is not necessary to mention in the face of the paucity of the figures, how unreliable such statistics may be, except to point out that since empyema is usu-

instructive. Although the data included in this comparison are rather meager, we are justified in concluding from it that no significant advantage of one system over the other with regard to mortality has yet been demonstrated.

In regard to other significant points, we cannot reduce our comparison to simple figures. We have found, however, that the majority of published experience and opinion is agreed that both methods yield about the same number of complications, and the same length of illness.

The reasonable and not unexpected conclusion to be drawn from these considerations is that neither method is so much better as to be adopted to the exclusion of the other. It seems probable that the best results will be obtained by the judicious use of both.

Naturally some types of cases may be

more satisfactorily dealt with by a closed suction system, particularly streptococcus infections in which the effusion is thin and usually occurs synchronously with the relatively long drawn-out pneumonia. In contrast pneumococcus empyema, usually occurring after the subsidence of pneumonia, characterized by thick pus, much fibrin, and earlier walling off, presents a process calling for ample drainage.

We may advocate, then, a policy of utilizing closed drainage whenever that is practicable, with a particular emphasis on its use for streptococcus infections. Rib resection may be carried out without

hesitation when drainage with the closed system becomes inadequate.

Conclusions

1 A series of thirty-seven cases of acute empyema treated by open drainage is presented, mortality eleven per cent.

2 A comparative survey of the recent literature demonstrates a practically identical mortality of eleven per cent for cases treated by the closed and open types of drainage.

3 A policy of combining both types of drainage as governed by specific indications, is advocated.

MARY McCLELLAN HOSPITAL

References

- 1 Walker, I. J. *Amer Jour Surg*, 25:228, 1934
- 2 Bunts, Frank. *Ann Surg*, 72:66, 1920
- 3 Bell and Graham. *Amer Jour Med Sci*, 156:839, 1918
- 4 Hedblom, Carl. *J. A. M. A.*, 97:1943, 1931
- 5 McEnery & Brennenman. *J. A. M. A.*, 93:362, 1929
- 6 Major, R. H. *Amer Jour Med Sci*, 162:397, 1921
- 7 Danna, A. *J. A. M. A.*, 96:1453, 1921
- 8 Davis, L. *Ann Surg*, 72:327, 1920
- 9 Hart, D. *J. A. M. A.*, 93:1724, 1929
- 10 Rienhoff and Davison. *Arch Surg*, 17:676, 1928
- 11 Singleton. *Ann Surg*, 91:894, 1930
- 12 Douglas. *Ibid*, 91:659, 1930
- 13 Hudson. *New Eng Jour Med*, 202:853, 1930
- 14 Ladd and Cutler. *Surg Gyn & Obs*, 39:429, 1924
- 15 Packard. *Ibid*, 53:255, 1931
- 16 Binney. *Boston Med & Surg Jour*, 191:1214, 1924
- 17 Foster. *Ann Surg*, 92:212, 1930
- 18 Mason, I. M. *J. A. M. A.*, 105:1114, 1935
- 19 Frank, L. W. *Amer Jour Surg*, 25:211, 1934
- 20 Cohen. *Surg Gyn & Obs*, 54:696, 1932

"DELIGHTFUL TWADDLE" ABOUT CANCER

"Twaddle" was Dr. Francis Carter Wood's comment on a lead article in *Coronet* entitled, "Is Milk Cancer's Ally?"

"It is the most delightful piece of twaddle I've read in a long time," said Dr. Wood, director of the Institute of Cancer Research at Columbia University, as reported in the *New York World-Telegram*.

The article, written by Walter Clare Martin, asserts "cancer is aided, abetted, stimulated and protected by the pressure of cholesterol," and "the chief source of cholesterol is milk."

The editors of *Coronet*, in a note following the article, state—"Coronet would rather print the answer than the question, but feels that the question cannot decently be ignored."

"There is no evidence that diet has anything to do with cancer," Dr. Wood said. "Eskimos eat neither vegetables nor milk, and they have cancer."

He asserted there was no evidence cancer was aided by the pressure of cholesterol and said that eggs, not milk, were the chief source of cholesterol.

"Cows do not have cancer," he observed.

In the article Mr. Martin says—"For years Switzerland, a milk and cheese nation, was thought to hold the world pennant for cancer. Now Scotland—which one tourist glorified as an island of oatmeal in an ocean of milk—is beginning to beat the yodelers' record."

"The reason there has always been a higher cancer rate in Switzerland," said Dr. Wood, "is that more autopsies are made there than elsewhere. In Switzerland there is autopsy in ninety per cent of all deaths. In this country there is autopsy in only two per cent of all deaths."

"If the cancer rate is going up in Scotland it means that the Scottish doctors are getting more expert. The cancer rate is in direct proportion to the effort of the doctors in the community."

"Mr. Martin says American Indians did not have cancer. Who was around to investigate the American Indians? He says that Southern Negroes, who drink less milk than the whites, have less cancer. They have less cancer only because they are unable to secure physicians who can diagnose their cancer."

CANCER OF THE RECTUM

With Acute Lead Poisoning (Industrial)

IRVING GRAY, M D , F A C P and IRVING GREENFIELD, M D , *Brooklyn*

The literature on the relationship of cancer to industrial hazards is rather scant. There are occasional reports and statistical studies in the English^{1,2} and American^{3,4} literature of the incidence of cancer among chimney workers, wool sorters, pitch and tar workers, and those employed in industry where the skin is exposed to irritating chemicals. There is little, however, on the subject of cancer and its occurrence in individuals exposed to the absorption of lead.

There is an increasing literature on the subject of lead in the treatment of cancer. Bullock and Cramer⁵ showed that lipid substances were contained in malignant cells in much greater concentration than in normally growing cells. Bell⁶ was the first (1922) to demonstrate experimentally that lead combines with lecithin, and for that reason he believes that this heavy metal influences cells rich in this substance. After Bell's publication⁷ in 1924, Glynn⁸ (1926) recorded unusual histological changes occurring in the cancer cells of a patient treated with colloidal lead injections. In 1928, Ullman⁹ reported favorable results in two patients with cancer of the breast with extensive metastasis treated with colloidal lead orthophosphate. Impetus to the use of lead in cancer has recently been given by the reports emanating from the work of Borgen of the Mayo Clinic. In 1935, this worker¹⁰ recorded the results of the treatment of malignancy with intravenous injections of lead.

In performing chemical analysis of cancer tissues from Bell's patients who were treated with colloidal lead phosphate intravenously, Patterson,¹¹ found a greater concentration of lead in malignant tissues than in nonmalignant tissues. This observation has been confirmed by Borgen.

In view of the fact that there has been increasing interest in the use of intravenous lead therapy for the treatment of

cancer, we are prompted to report a case of cancer of the rectum in an individual who contracted acute (industrial) lead poisoning. Despite the acute toxic symptoms and evidence of abnormal retention of lead in the tissues, there was progressive increase in the size of the growth.

Case Report

J O'B, age 51, white, married, was employed as a riveter on an iron construction project in August 1934. He was exposed to the inhalation of lead fumes in an enclosed chamber. The iron girders used in the construction projects were painted with red lead. In driving the hot rivet thru the girder, the paint was heated and the fumes liberated into the enclosed chamber. Some two months after he was employed, he began to complain of abdominal pain and cramps associated with increasing weakness, anorexia, and constipation. He continued to work until January 1935 and was daily exposed to the inhalation of lead fumes. He wore no respirator. After five months of such occupational exposure, he was compelled to stop working because of the increasing severity of the abdominal cramps, constipation, and weakness.

Physical examination revealed a white, male adult, with a marked pallor, underweight and appearing about ten years older than the stated age, past history essentially negative. Other than the poor oral hygiene and the marked pallor, there were no abnormal findings on objective study. The heart, lungs, and abdominal examination showed no departure from the normal. Likewise the neuromuscular system presented no abnormalities. There was a hypotension of 98/80 present.

Blood study showed hemoglobin seventy per cent rbc. 3,030,000, wbc. 9,900, platelets 260,000, Polys seventy-seven per cent, lymphs twenty-one per cent, eosin, two per cent, stippling, ten cells per fifty fields. In view of the history of exposure, the general appearance of the patient, the symptoms and findings on blood study, a diagnosis of lead poisoning was made. The patient was admitted to the Brooklyn Jewish Hospital for study and treatment.

From the Department of Medicine, Jewish Hospital of Brooklyn

First Hospital Admission

March 13 to April 15, 1935

Laboratory studies on admission were as follows Wassermann and Kahn tests, blood chemistry (including sugar, creatinine, calcium, and phosphorus) studies, liver function and glucose tolerance tests, urine, urea clearance, and Mosenthal tests were all normal. Examination of the urine and stool for lead failed to reveal the presence of this heavy metal in the control specimens. The patient was placed on deleading therapy as recommended by Aub and his co-workers.¹² In addition he was given a high phosphorus, low calcium diet.¹⁸ Shortly after the institution of this regime the patient began to liberate lead from the tissue depots and to excrete it in the urine and stool. Urine examinations revealed the presence of 0.2 mgm and 0.3 mgm of lead per liter of urine, on two consecutive studies. Examination of the stool revealed the presence of 1.6 mgm, 1.0 mgm and 3.0 mgm of lead per 100 gram of ash stool on three consecutive studies. After three weeks of deleading therapy, the patient was discharged from the hospital improved. Abdominal colic had disappeared and bowel function was normal. A high calcium, high caloric, high vitamin diet was prescribed.

On May 12, four months after the cessation of exposure, the patient had severe rectal bleeding which subsided following rest in bed. Examination revealed the presence of a mass on the anterior rectal wall just above the prostate and within reach of the examining finger. The mass was hard and irregular and appeared to be pressing on the anterior rectal wall.

Second Hospital Admission

June 18, 1935

In addition to the established diagnosis of lead poisoning, a diagnosis of carcinoma of the rectosigmoid area was made. In view of the course of the disease, exploration was deemed advisable. Operation was performed on July 23.

Operative findings included markedly distended and thin-walled sigmoid. The pelvic sigmoid was firmly fixed by a hard indurated mass in the pelvis which surrounded it on three sides. This mass was covered with peritoneum, its surface was irregular and nodular. There were a few large retroperitoneal glands which could not be dissected free. No glands were present in the omentum. A colostomy was done. In spite of supportive measures which included repeated transfusions, venoclyses, and hypodermoclyses, the patient gradually became

worse and died on August 16, approximately three weeks after the operation.

Autopsy and pathological study of the tissues was done by Dr. Bela Halpert. The essential findings included the specimen from the rectum which was an irregularly shaped mass of tissue, 3.5 x two x one cm., which on microscopic study showed tall columnar cells forming tubular structures of solid masses embedded in a scanty connective tissue stroma which were seen invading and replacing portions of the muscular coat. Extensive areas of necrosis were seen in the central parts of the tumor cell masses. A dense infiltration of small round and large mononuclear cells and many polymorphonuclear leukocytes were seen in the stroma. A diagnosis of carcinoma of the rectum (cylindrical cell type) was established. Chemical analysis for lead of the liver, spleen, lung, heart and brain was done. The following were the amounts of lead found in one hundred grams of semi-dry tissues:

Liver	2.156 mgm.
Spleen	0.563 mgm
Lung	0.256 mgm
Heart	0.132 mgm
Brain	3.201 mgm

(1453 gms whole brain)

Comment

Kehoe and his coworkers¹⁴ showed that lead is present in the organs of individuals not exposed to industrial hazards (liver, spleen, lung, heart, etc.). These amounts were present in one hundred grams of tissue examined:

Liver	0.08 mgm
Spleen	0.00 mgm
Lung	0.00 mgm.
Heart	0.00 mgm

In view of the presence of lead in these amounts in normal tissues, we can safely state that our patient had a definite retention of lead in the tissues. The clinical record in this case indicates that the mass in the rectum became increasingly larger. While it is difficult to estimate the exact amount in mgms of lead the patient inhaled and absorbed into his blood stream, there is sufficient evidence to indicate that there was an abnormal amount of lead retained in all the tissues as was shown biochemically. The lead absorbed was in no way a factor in preventing the growth of the neoplasm. This fits in

with Hoffman's¹⁵ statistical study of 2,000 death certificates of lead workers in the United States. The mortality rate for painters shows no material effect of lead as an inhibiting factor in the growth of cancer.

There may possibly be a difference in the behavior or action of lead introduced via the intravenous route as against that introduced via the upper respiratory channels. Colloidal lead has some detrimental effect on malignant cells when introduced intravenously.¹⁶ We are reporting our observations in a patient with cancer of the rectum who has abnormal amounts of lead in his tissues. The favorable results obtained by some investigators following the use of lead in the

treatment of carcinoma may be due to the large doses and the intravenous route of the introduction of the heavy metal. In our patient, despite the abnormal amount of lead in the tissues and circulating blood, the growth was in no way inhibited in its progress.

Conclusions

1 Case report of cancer of the rectum developing in an individual with acute lead poisoning (industrial)

2 Industrial lead poisoning was not a factor in retarding the growth of a rectal malignancy

41 EASTERN PARKWAY
85 EASTERN PARKWAY

References

- 1 Hoffman, F. L. *Jour of Indust Hygiene*, p 113, May 1932
- 2 Brownlee, Collis et al. An Investigation into the Statistics of Cancer in the Different Trades and Professions. *Special Report Series No 99*, Brit Med Research Council, 1926
- 3 Dublin, Louis L. and Vance, Robert J. *Bull No 307 U S Bureau of Labor Statistics*, Dept Labor, pp 130, Feb 1930 Washington D C.
- 4 Brockbank, W. *Quarterly Jour of Med Neu Sci* 1 31, 1932
- 5 Bullock, W. E. and Cramer W. *Proc Roy Soc London, Ser B*, 87 239, 1913
- 6 Bell, Blair W. *Lancet* 2 1005, 1922
- 7 Idem *Ibid*, 1 266 1924
- 8 Glynn, E. E. *British Med Jour* 2 1224 1926
- 9 Ullman, H. J. *S G & O* 46 119 1928
- 10 Barger, J. A., Horton, B. T. and Osterberg, E. A. *Proc of Staff Meeting*, Mayo Clinic, 5 65, 1935
- 11 Patterson, J. Quoted by Bell, *Lancet*, p 273, Feb 1924
- 12 Aub, Joseph C., Fairhall, L. T., Minot, A. S. and Reznikoff, Paul. *Lead Poisoning* Williams and Wilkins Co., Baltimore, 1926
- 13 Gray, Irving. *J.A.M.A.* 104 200, 1935
- 14 Kehoe, Robert A., Thammann, Frederick, and Cholak, Jacob. *Jour of Indust Hygiene*, 15 281, 1933
- 15 Hoffman, F. L. *Statistics of Occupational Cancer, Report of Int' Conference on Cancer*, London, John Wright & Sons, pp 318-322 1928
- 16 Aub, J. C. and Smithwick, R. H. *New England Jour Med* 208 310, 1933

ALTMAN FOUNDATION SUPPORTS SPEECH AND HEARING NURSERY SCHOOL

A recent grant made by the Altman Foundation to the Women's Auxiliary of the New York League for the Hard of Hearing has assured the Nursery School which it is sponsoring of a degree of permanency. This school was opened only on February 1 but has already attracted the interest of numerous individuals and groups who have attested that interest by their contributions to the upkeep of the school.

The unique features of this nursery school are the admission of a limited number of children with impaired speech and hearing into a larger group of normally hearing and

speaking children of the same age, and the emphasis upon all health aspects of the work. Children of ages two and three are eligible and preference is given to the younger group.

The school activities are planned to further the growth and development of the preschool child, and are supplemented by special techniques in the development of speech and of lipreading. Observers are welcome at any time—the school session is nine to twelve St Mary's Hospital for Children, 405 West 34 Street, New York City.

DO YOU KNOW?

Maintaining normal weight is one means of postponing heart trouble. A middle-aged person who has become thirty pounds overweight has added some eighteen miles of blood vessels to his system, placing an ab-

normal burden on his heart at a time when he should be protecting it from undue exertion—*From the press Bulletin issued by the Bureau of Public Relations of the Medical Society of the State of New York*

MILK DIGESTION

Mechanism and Modification

I NEWTON KUGELMASS, M D, *New York City*

Digestion of milk in the infant's stomach differs markedly from that in the test-tube. On adding gastric juice to cow's milk the coagulation is slow, the curd tough, and the clot retraction rapid. The solubility of the clot is inappreciable in both acids and alkalies. On adding acid to cows milk the coagulation is rapid, the curd flaky, and the clot retraction nil. The solubility of the clot is appreciable in both acids and alkalies. The former represents rennet clotting of milk and the latter, acid clotting. We have already reported¹ on the individual mechanisms involved in each process *in vitro*. But in the infant's stomach both mechanisms operate on portions of milk ingested flowing through a turbulent apparatus.

Healthy infants of six to thirty months were given the milk or formula studied, the aminonitrogen determined by the Ván Slyke apparatus with microburette² from the gastric contents withdrawn at fifteen minute intervals after feeding and the blood aminonitrogen estimated simultaneously by colorimeter³. The soluble nitrogen content of the stomach was considered as the index of protein disintegration in the course of digestion⁴. The aminonitrogen of the blood was indication of the rate of nitrogenous absorption from the intestinal tract. The infants studied were recovering from conditions unrelated to alimentary function. The data obtained for each milk or formula is the average of two determinations for each infant. The results are relative because of volume diminution, gastric dilution, and aliquot differences. (Table I)

The curves for aminonitrogen determinations of the gastric juice and blood respectively, taken at periodic intervals after the ingestion of various types of milk

and their formulae, clearly reveal the course of digestion and absorption of milk proteins. There are two types of curves for gastric digestion, the double parabolic curve for slow digestion and the single parabolic curve for rapid digestion. Fresh cow's milk is the slowest and acid milk the fastest to be digested in the infant's stomach. Powdered milk belongs to the former type and evaporated milk to the latter type of gastric digestion. Whatever the type of milk there is a marked initial rise in the soluble nitrogen, lowest with cow's milk and increasingly higher for powdered milk, evaporated milk, and acid milk respectively (Chart I). After the initial peak within the first half hour after ingestion of milk there is a secondary rise in soluble nitrogen for slow-digesting milks but a marked fall for fast-digesting milks.

The maxima for slow-digesting milks occur in the second peak of digestion while maxima for fast-digesting milks occur in the initial rise of soluble nitrogen. The type of maximum attained for the gastric aminonitrogen characterizes the rate of digestion of the milk. For rapidly digested milks the maxima appear early while in slow digested milks the maxima are delayed. Modification of milk by carbohydrate, dilution, and heating accelerates the course of digestion in comparison with the type of milk used as a control. The maximum for the formula of each type of milk appears sooner than that for milk alone. After the second hour the concentration of soluble nitrogen is still high in slow-digesting milks but low in fast-digesting milks indicating the characteristic emptying time for that milk in the infant's stomach. The residual curd at the end of the second hour was high with fresh milk, moderate with powdered milk, minimal with evaporated milk, and absent

This work was aided by grants from the Nutrition Research Fund and the Milk Research Council

with acid milk. The residue was diminished by modification of each milk.

The course of the soluble nitrogen content of the stomach was followed simultaneously in the blood of the infants studied. The aminoacid content of the blood represents a product of milk protein on its way from the alimentary tract to the tissues. The normal aminonitrogen of the blood of infants varies between five and seven mgms per cent rising during milk digestion to between nine and twelve

milks, the former showing a broader zone of aminonitrogen level in the blood than the latter. The fall in blood ammonitrogen during digestion is slow for cow's milk and rapid for acid milk. Striking is the parallel between the curves of gastric and blood aminonitrogen after the ingestion of various types of milk.

Discussion

Cow's milk ingested as a fluid is transformed physically and chemically in the

TABLE I—RATES OF MILK PROTEIN DIGESTION AND ABSORPTION

	0	15m	Post-Feeding Time					
			30m	45m	60m	90m	120m	
CERTIFIED COW'S MILK								
Gastric aminonitrogen	25	80	75	70	72	82	95	
Blood aminonitrogen	5 0		7 6	9 0	9 5	7 4		
COW'S MILK FORMULA								
Gastric aminonitrogen	20	72	85	79	92	90	60	
POWDERED MILK								
Gastric aminonitrogen	35	100	78	88	120	80	48	
Blood aminonitrogen	7 0	8 2	10 0	9 6	8 0	5 2		
POWDERED MILK FORMULA								
Gastric aminonitrogen	30	92	90	118	112	72	60	
EVAPORATED MILK								
Gastric aminonitrogen	18	120	132	122	100	52	26	
Blood aminonitrogen	6 2	9 0	12 5	12 0	9 2	5 0		
EVAPORATED MILK FORMULA								
Gastric aminonitrogen	26	118	135	120	92	42		
ACID MILK								
Gastric aminonitrogen	20	125	128	105	75	26	10	
Blood aminonitrogen	5 2	9 8	10 0	8 2	6 0	4 8		
ACID MILK FORMULA								
Gastric aminonitrogen		120	125	115	80	30	15	

mgms per cent. The aminonitrogen content of the milks used in these studies showed an average of 7.2 mgms per cent for fresh cow's milk, 6.5 for powdered milk, 5.8 for evaporated milk, and 12.5 for acid milk.

The rise in the blood aminonitrogen is slight for slow-digesting milks and rapid for fast-digesting milks, the curves paralleling those obtained for the rate of gastric digestion. Indeed the slope of the aminonitrogen curve of the blood is not only an index of the rate of nitrogenous absorption but as well of the rate of gastric digestion. The maximum blood aminonitrogen obtained appears at the end of an hour after the ingestion of cow's milk and at the end of twenty minutes after the ingestion of acid milk. The average rise in the aminonitrogen is less for slow-digesting milks than for fast-digesting

stomach, the reservoir for preliminary digestion. The milk dissolves the inappreciable amount of gastric juice normally present and stimulates a gradually increasing secretion of about 0.1 N HCl and the enzymes rennin and pepsin, and possibly kathepsin. These enzymes now become dispersed in acidified milk, the cleavage of caseinate is initiated by rennin, and acid hydrolysis is begun by peptic catalysis. But each of the constituents of the gastric juice encounter chemical difficulty with milk—hydrochloric acid with the buffer effects of the inorganic salts, and rennin and pepsin with the precipitated form of casein. The buffer salts of milk prevent a marked rise in the hydrogen ion concentration of the stomach contents, the precipitation delays protein hydrolysis. The formation of a solid curd delays digestion even more

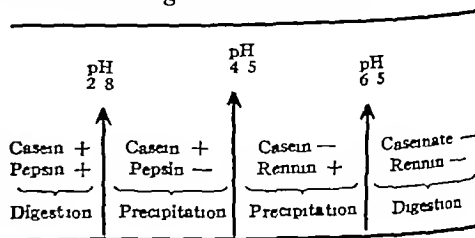
than does the high buffer value of liquid milk. Neither reaction is necessary nor desirable for gastric digestion. But both the buffer and curd obstacles to digestion occur only between the pH range of 6.5 and 4.5, a zone readily passed with normal digestive activity. These preliminary changes of milk by gastric juice may be modified or prevented to augment digestive efficiency in the infant's stomach.

The mechanism of milk clotting and its relation to the character of curd formation¹ have already been presented. Within the stomach liquid milk is partly changed into a solid by the combined rennet, pepsin, and acid coagulation. Even under the most favorable gastric conditions no more than half of the milk is coagulated. During the first ten minutes of the preclotting period, fluid milk passes through the pylorus and during the clotting period about forty per cent of the remaining milk is coagulated. The amount and character of the clot depends upon the nature of the milk or formula ingested. Fresh and dried milks yield firm clots while evaporated and acid milks give soft clots. The former are concentrated, contracted, and of great tensile strength while the latter are voluminous, spongy, and inappreciable in curd tension. Whatever the curd formed, the gastric contents remain semi-fluid for there is no actual separation of the solid phase. Firm clots are disintegrated by peristaltic movements into smaller particles sufficiently dispersed for digestion and passage through the pylorus. With poor gastric motility the hard curd acts like a foreign mass which may be regurgitated or if passed on disturbs intestinal function. Soft clots are not only well-dispersed but readily permeated by gastric juice with uninterrupted hydrolytic action. The rate of gastric digestion is about twice as fast for soft curds as for hard curds. Cow's milk modified by boiling, dilution, acidification or colloidation will yield a soft curd in the stomach.

Curd formation is maximal and protein digestion is minimal in the stomach. The rate of dissolution of milk curd depends on the hydrogen ion concentration of the stomach contents. In normal infants the initial gastric pH 4.0-5.0 decreases but slightly with fresh cow's milk and signif-

icantly for evaporated and acid milks after thirty minutes of ingestion. The individual variations in gastric pH are rather marked. But once the pH becomes lower than 4.5—the isoelectric zone for casein—peptic digestion is accelerated. It is most active with electropositive casein, the lower the pH, the greater the amount of ionized casein. But the degrees of acidity observed for optimal peptic digestion *in vitro* are not reached in the stomach until the second hour, after the peak of soluble nitrogen has been attained. Apparently gastric digestion in the infant differs from artificial digestion in the test-tube only in the physiologic conditions rather than in the mechanism. Despite all theory the normal infant digests casein remarkably well in the stomach and to a greater extent than predicted from *in vitro* experiments.

Clinically the pH zone for enzyme activity in the stomach is considerable. The functions of both rennin and pepsin are dual—digestion and coagulation. While each role is more or less determined by the gastric pH yet they are not mutually exclusive. Rennin is an electrolyte with an isoelectric point of 6.5. Above this pH it is electronegative and the same charge as casein and paracasein. With the electrical charges alike, rennin digests casein. Below pH 6.5 rennin is electropositive and of opposite charge to casein and paracasein. With the electrical charges opposite, rennin coagulates paracasein. The same mechanism maintains for pepsin. Its isoelectric point is 2.8. Above this pH pepsin is electronegative, opposite in charge to casein and hence coagulation. Below this pH pepsin is electropositive, similar in charge to casein and hence digestion. Despite the marked coagulation effect of both rennin and pepsin on milk throughout the pH range 2.8-6.5, active digestion occurs as evinced by rapid formation of soluble nitrogen in the stomach.



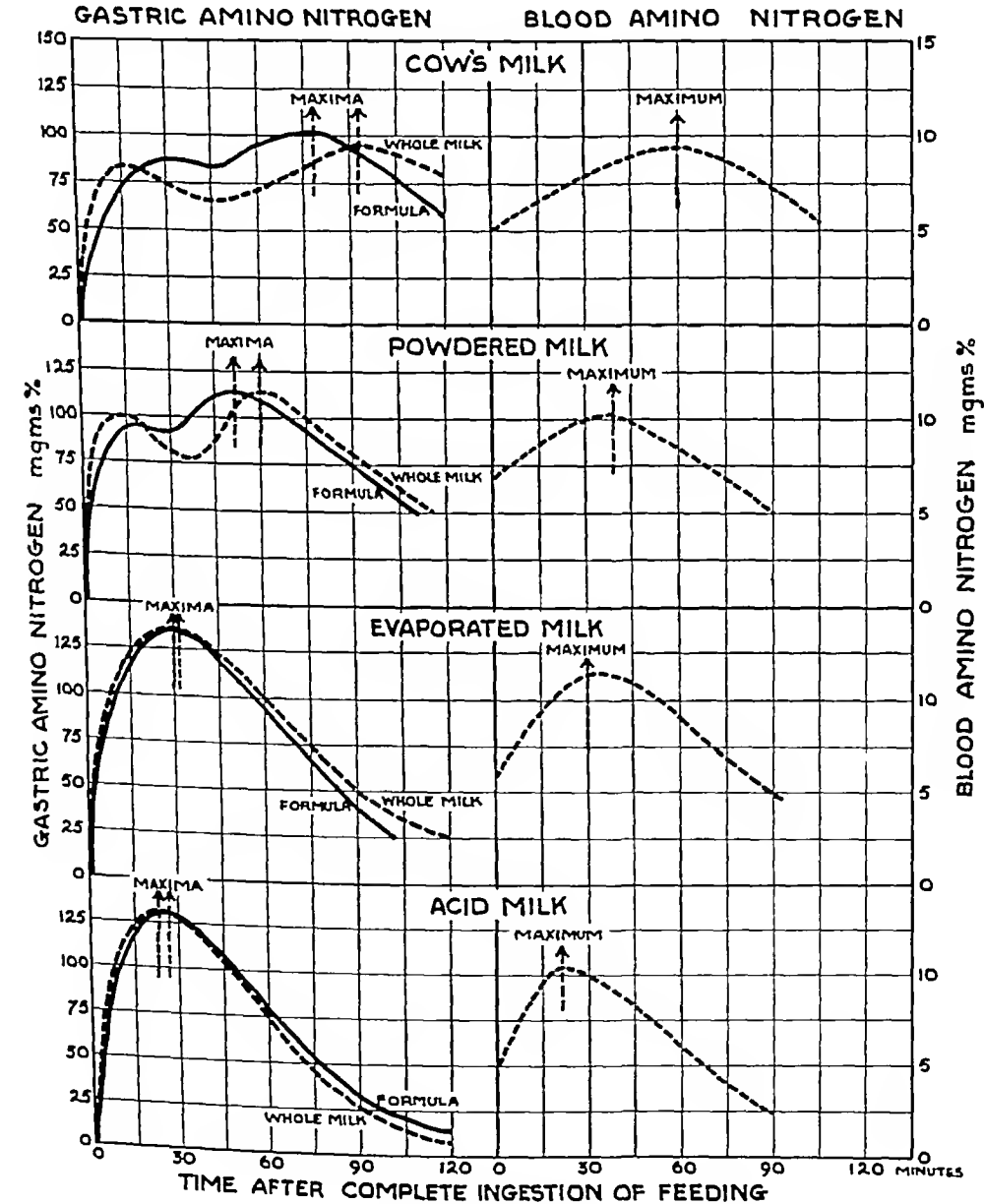
Summary

1 Rennet clotting, resulting from the addition of gastric juice to cow's milk, is characterized by slow coagulation, tough curd, rapid clot retraction, and insolubility of the clot in both acid and alkalis. Acid clotting, resulting from the addition

of acid to cow's milk, is characterized by rapid coagulation, flaky curd, non-retracted clot, soluble in both acid and alkali. Both processes operate on portions of milk within the infant's stomach.

2 The soluble nitrogen content of the stomach was considered as an index of

CHART I—Comparative Rates of Gastric Digestion of the Protein of various types of milk formulas, and the rates of nitrogenous absorption by the blood



protein disintegration during digestion and the aminonitrogen of the blood, the criterion of protein absorption from the intestinal tract

3 Two types of curves characterize the gastric digestion of milk, the double parabolic curve for slow digestion and the single parabolic curve for rapid digestion. Fresh cow's milk is the slowest and acidified milk is the fastest to be digested in the infant's stomach. Powdered milk belongs to the former type and evaporated milk to the latter type of gastric digestion. The soluble nitrogen maxima for slow-digesting milks occur in the second peak of digestion while maxima for fast-digesting milks occur within the first half hour after the ingestion of milk. Modification of milk by carbohydrate, dilution, heating, and colloid addition accelerates the course of milk digestion.

4 The normal aminonitrogen of the blood of infants varies between five and seven mgms per cent rising during milk

digestion to between nine and twelve mgms per cent. The rise in the blood aminonitrogen is slight for slow-digesting milks and rapid for fast-digesting milks, the curve paralleling those obtained for the rate of gastric digestion. The soluble aminonitrogen maximum of the blood appears at the end of an hour after the ingestion of cow's milk and at the end of twenty minutes after ingestion of acid milk.

5 The curd formation delays digestion more than does the high buffer value of liquid milk particularly between pH 6.5 and 4.5. At lower gastric pH levels peptic digestion is accelerated with ionized electropositive casein. Gastric digestion in the infant differs from artificial digestion in the physiological conditions rather than in the mechanisms, for despite theory the normal infant digests casein remarkably well within the stomach.

1060 PARK AVE.

References

- 1 Kugelmass I. N. Milk Clotting—Mechanism and Modification (in press)
- 2 Koch and McMeekin *J. Am. Chem. Soc.*, 46 2066 1924
- 3 Peters and Van Slyke *Biochemical Methods*, Baltimore, 1932

- 4 Hess, Koch, and Sennewald *J.A.M.A.*, 87 136 1926
- Freudenberg, E. *Physiologie und Pathologie der Verdauung im Säuglingsalter*, Berlin, 1929
- Fetter and Schultz *Am. J. Dis. Child.* 50 1107, 1935

TO DOT THE STATE WITH SYPHILIS WARNINGS

One of the State Health Department's latest projects in connection with its syphilis program is the placing of signs in public places throughout the State, which emphasize the curability of the disease by early and appropriate treatment. The work of soliciting the cooperation of proprietors of restaurants, hotels, and gasoline stations, and of posting signs is being done by the National Youth Administration.

Significant of the changing public attitude toward syphilis is the fact that at least one of these signs has been placed in ninety-seven per cent of the restaurants, hotels and gasoline stations visited in the city of Poughkeepsie, and eighty-five per cent of all places visited in the city of Syracuse.

Several large oil corporations have written the Department endorsing this method of publicizing facts about syphilis. Excerpts from some of the letters follow:

The ——— Oil Corporation is thoroughly in accord with this move in the interests of public welfare, and we will do everything possible to facilitate the placing of these signs in stations at which our products are sold. You are at liberty to use this letter or copies of it in approaching any members of our field sales organization or in discussing with our dealers the feasibility of their using these signs.

We believe that the publicity program of the New York State Department of Health for control of syphilis is a worthwhile project and approve of having publicity material in the local gasoline stations.

We shall be glad to cooperate with you in reference to the intensive effort you are making to acquaint the public with the serious results which may follow when syphilis is untreated and with the possibility of cure when it is treated early and properly.

That cancer is not common among primitive people is now explained mainly on the

ground that they do not live long enough to die of this disease.

TROUBLED WRITERS

A Note on the Psychopathology of Literature

LOUIS J BRAGMAN, M D, Binghamton

Frances Winwar, in the author's note prefacing her recently published *Poor Splendid Wings The Rossetti's and Their Circle*, says "This is not fictionalized history or biography, though it read like a novel, nor is it a Freudian study of the men and women who played their part in the Pre-Raphaelite drama, though the student will detect the methods of modern psychology without those barbarisms that should have no place outside of clinical reports" Yet this remarkable story is so crowded with psychopathological implications that it is questionable if the truth can actually be ascertained minus those *barbarisms*

There are, of course, barbarisms (medically speaking), that have no place outside of clinical reports, not because of the engenderment of a squeamishness, but rather since such matters are not, *suu generis*, significant from a literary or critical viewpoint "A physician," says Whittier, and he might also have meant a psychiatrist, "could not be otherwise than melancholy—he sees incipient disease where the uninitiated see only delicacy" Medicoliterary gossip for its own sake, unrelated intrinsically to critical discussion, is out of place in biographical analysis But where incipient or advanced and manifest pathology is an integral force in creative expression, it cannot be unseemly or unfastidious to introduce it.

"The place of the literary critic might well be taken by the psychopathologist," writes Jeannette Marks in *Genius and Disaster* Of course, no such specialist would be so presumptuous as to attempt to supererogate the literary critic, yet literary criticism, in the light of modern psychology, must be wholly ineffective if psychopathological factors are overlooked "Bunyan was a sick soul Literature owes much to the sick soul," comments W Langdon Brown, writing (*St Bartholomew's Hospital Gazette*, September 1933) on *The Psychology of*

Authorship Frances Winwar is of course intensely and alertly aware of this, as is apparent throughout her keen analysis of that distinguished but bizarre circle of poets and painters But are *barbarisms* out of place in what is actually an elaborate clinical report?

In his Cambridge lecture of recent date, A E Housman said

Who are the English poets of that age (the eighteenth century) in whom one can hear and recognize the true poetic accent emerging clearly from the contemporary dialect? These four Collins, Christopher Smart, Cowper and Blake And what other characteristics had these four in common? They were mad

Is there a direct causative relationship between madness and creative genius, between sick souls and literature? Is it true "that great writing springs from a terrible driving unrest"? Are the makers of literature troubled writers whose lives have been spent abreast troubled waters?

It has long been recognized that there is a direct connection between inner unrest and outer productiveness David consoled himself in his hours of sadness by composing his psalms Aristotle pointed out how often eminent men displayed morbid mental symptoms Plato distinguished two kinds of *delirium* the one, an ordinary insanity, the other, the spiritual exaltation which produced poets, inventors, prophets, and the like Not that the first group is entirely sterile, however else one might view an anthology entitled *Poetry of the Insane*, recently compiled by Dr Charles E Mayo Nathaniel Lee, according to J F Nisbet in his *Insanity of Genius*, long an inmate of Bedlam, stated "It is difficult to write like a madman though it may be easy enough to write like a fool"

Of the *furor poeticus* of the Romans, it might be inferred that Holmes had somewhat of the same thought in mind when he said that during the writing of

protein disintegration during digestion and the aminonitrogen of the blood, the criterion of protein absorption from the intestinal tract.

3 Two types of curves characterize the gastric digestion of milk, the double parabolic curve for slow digestion and the single parabolic curve for rapid digestion. Fresh cow's milk is the slowest and acidified milk is the fastest to be digested in the infant's stomach. Powdered milk belongs to the former type and evaporated milk to the latter type of gastric digestion. The soluble nitrogen maxima for slow-digesting milks occur in the second peak of digestion while maxima for fast-digesting milks occur within the first half hour after the ingestion of milk. Modification of milk by carbohydrate, dilution, heating, and colloid addition accelerates the course of milk digestion.

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References

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- 2 Koch and McMeekin *J. Am. Chem. Soc.*, 46 2666, 1924
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- 4 Hess, Koch, and Sennewald *J.A.M.A.*, 87 136, 1926
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ground that they do not live long enough to die of this disease.

CONGENITAL SYPHILIS IN ONE OF IDENTICAL TWINS

Report of a Case

OSWALD J. MCKENDREE, M D , *Utica*

Utica State Hospital

The occurrence of syphilis in twins is not uncommon, but the presence of syphilis in only one of twins is a rare occurrence. Since the existence of lues in newborn infants was recognized by Gaspar Torella in 1498, the problem of congenital syphilis has gradually become better, though not completely understood.

Before proceeding further an understanding of the terms congenital and inherited syphilis is necessary. Solomon¹ in his book, "Syphilis of the Innocent" has clarified this point by employing the term congenital syphilis to describe those cases in which the infection of the offspring has taken place at some time between conception and the child's existence independent of the body of the mother. By inherited syphilis he believes one should mean that no direct infection of the offspring has occurred, the parental germ plasma instead being damaged by toxins from the *Treponema pallidum*. According to that writer, syphilis which has invaded the central nervous system of the newborn produces one or more of the following conditions:

- 1 Feeble mindedness
- 2 Juvenile paresis
- 3 Juvenile tabes
- 4 Microcephalus
- 5 Hydrocephalus
- 6 Cerebral aplasia and agenesis
- 7 Meningo-encephalitis
- 8 Spastic palsies, cerebral and spinal hemiplegia, diplegia
- 9 Epilepsy—Convulsions
- 10 Gumma—tumor

The subject calls to mind the laws of Colles and Profeta. Colles' law states in substance that a woman free of syphilis who gives birth to a syphilitic child is immune from infection by this child although the latter may infect another nonsyphilitic individual, for example, a wet nurse. Profeta's law states that a

nonsyphilitic offspring born of a mother infected with lues cannot be infected by the mother or syphilitic wet nurse while at breast. In the light of present day knowledge it is easy to understand the observations upon which these laws originated. We now know that many congenital syphilitics are symptom-free at birth and until several years later when they are diagnosed either by physical symptoms or by the aid of the Wassermann test. In like manner there is a small percentage of mothers who give birth to syphilitic offspring and show no physical symptoms of the disease. With the aid of the Wassermann test these cases are revealed. When the above mentioned laws were formulated there were no laboratory tests available to assist in making the diagnosis.

An intriguing problem arises when we attempt to explain why one of twins may be infected and the other remain free of syphilis. The majority of writers today feel that the infection is transmitted from the mother to the child through the placenta. Other theories which have been considered are the transmission of spirochetes to the ovum by spermatazoa, transmission by extension from mother to ovum, penetration of the ovum by independent spirochetes at the time of impregnation, and infection by trauma during passage through the birth canal.

In support of the belief that transmission from the mother occurs through the placenta is the observation that scarring^{2, 3} sometimes may be seen in the placenta of offspring who later prove to be congenital syphilitics. This finding is not present in all cases but wherever observed, it is practically always pathognomonic of congenital syphilis. Animal experimentation has shown that certain spirochetes such as the *spirocheta pallida*, *icterogenes*, and *recurrens* may pass through a normal

Read before the Utica Academy of Medicine October 15, 1936

The Chambered Nautilus he was filled with "the highest state of mental exaltation and the most crystalline clairvoyance" that had ever been granted him. And Dryden's borrowing of the famous line from Seneca—great wits are sure to madness near allied—is well-known.

The list of troubled writers reads like a roll-call of the great. Nisbet's book, Lombroso's *Man of Genius*, Albert Mordell's *Erotic Motive in Literature*, Jeanette Marks' *Genius and Disaster*, Hyslop's *Great Abnormals*—all abound in descriptions of the psychotic instabilities of writers. Burns, Byron, Shelley, Keats, Swinburne, left records of their troubled lives in their lyric poems. Swift, Johnson, Cowper, Southey, Goldsmith, Lamb, Landor, Chatterton, Coleridge, Scott, to mention but a few whose lives have been studied from this aspect, were decidedly troubled, decidedly pathological. In *Expression in America*, Ludwig Lewisohn applies the psychoanalytic yardstick to literature, with the standard of judgment that of Hawthorne, who wrote, "not by accident, but to ease his troubled soul." Intensive studies of this aspect of writing have been made by two psychiatrists. Fritz Wittels, in a chapter called *Psychoanalysis and Literature*, from the book, *Psychoanalysis Today*, and Otto Rank, writing on the Creative Urge and Personality Development, in his *Art and the Artist*.

Why, asks Albert Mordell, was Schopenhauer a pessimist? Why was Byron melancholic? Whence came the pathological passion of Keats for beauty, the spirit of Browning for optimism, the misogyny of Strindberg, the misanthropy of Swift, the moral revolt of Ibsen, the religiosity of Tolstoi, the cynicism of

Thackeray? Where but from some inner urgency. They write and live thus because they must, because they can do not otherwise. "All who flatter themselves that they do not write themselves into their works are the dupes of the most fallacious illusion," said Anatole France. Literary psychographs have been prepared of many of these writers, bearing out in every instance the thought expressed by Goethe to the effect that work is a deliverance. In *Hassan*, a play by James Elroy Fletcher, occurs this dialogue:

A poet must learn what man's agony can teach him.

Is it then not better not to be a poet?

It is undoubtedly true that mental warfare produced the visions of Blake, and De Quincey, and Baudelaire, and Coleridge. Psychiatry, and psychopathological literary criticism would seem to show that genius and psychosis are inter-related, that the works of men grow out of their mental torments which make their lives miserable "but produce masterpieces of strange and weird and lasting beauty." For it is highly probable, says E. Graham Howe, (*Lancet*, February 14, 1931) "that much that has been written and much that has been said would never have seen the light of day had there not been emotional repression behind it."

The analysis of these repressions does not constitute literary barbarism. The psychiatrist, by including his clinical notes in a study in literary criticism, is neither intruding nor besmirching. Rather, he is affirming with Matthew Arnold that "literature is the criticism of life."

110 OAK ST

CCC POSITIONS FOR DOCTORS

The United States Government has issued a call for physicians to assist in the medical work of the Civilian Conservation Corps camps throughout the eighth corps area, which comprises Texas, Colorado, Oklahoma, Arizona, and New Mexico. Applicants for these positions must be graduates of Class A Medical schools. If accepted, they will be given preference of assignments

in any one of these five states. Physicians without dependents will receive for this work \$200 a month and those having dependents will receive \$265 a month. All inquiries in connection with application for a position in the Civilian Conservation Corps work in the eighth corps area should be addressed to the Surgeon Headquarters, Eighth Corps Area, Fort Sam Houston.

was sent to the Utica State Hospital with a diagnosis of juvenile paresis

Patient is fairly well-developed and nourished. Tonsils infected. Upper central incisors show Hutchinsonian deformity, i.e., semilunar notching. Glands, bones, and skin negative. Heart, lungs, and abdomen were negative. Pulse seventy-eight, B P 90/70

Pupils react sluggishly to light but satisfactorily to accommodation. Right pupil is larger than left. She utters only a few words which are slurred, right external squint and horizontal nystagmus present, knee jerks normal, right ankle jerk not elicited, no Babinski or ankle clonus. No cooperation for sensory and other neurological tests

Blood Wassermann four plus in alcoholic and cholesterinized antigen. Spinal fluid Wassermann four plus in alcoholic antigen and 44420 in cholesterinized antigen. Cells two plus, globulin faint trace, pressure normal, colloidal gold 555432100, i.e., incomplete paretic curve. Blood sugar ninety mg per 100 c.c. of blood. Nonprotein nitrogen thirty-six mg per 100 c.c. Urinalysis—color amber, reaction acid, albumin one plus, sugar negative, few leukocytes, many epithelial cells, no red blood cells, or casts, some calcium oxalate crystals, spg 1.032. Patient's twin sister showed negative blood and spinal fluid Wassermann, also negative colloidal gold and mastic tests. All tests were performed at the George Alder Blumer laboratory, a unit of the Utica State Hospital.

Mental examination (for uncooperative patients). Patient was quiet and cooperated poorly. Production markedly diminished. Pronounced speech defect. She appeared happy, smiling frequently. Her movements were natural. No assuative tendencies were shown. Dressed and fed herself. Expression of face frequently vacant. Unable to follow commands or imitate movements of others. Muscle reaction normal. Smiled and appeared pleased when her home and mother were mentioned. No emotional response to jokes. Unable to read or write. Body temperature and skin reactions normal.

The diagnosis of syphilitic meningoencephalitis (juvenile paresis) was confirmed and this patient will receive a course of malarial therapy followed by weekly trypanemide and mercury salicylate injections at intervals of three or four days, dose 15 to 20 grams of the former and thirty to forty-five milligrams of the latter by the intramuscular route. Two or three courses consisting of twenty-five injections

of each will be given depending upon the patient's physical reaction to the treatment. During rest periods from the former she will receive mixed treatment consisting of potassium iodide and red iodide of mercury. Blood and spinal fluid examinations together with the patient's physical condition will govern the number of repetitions and any change of the medicinal routine.

One cannot hope for a cure in cases such as this but the treatment as outlined may prevent further progress of the disease, produce moderate general improvement, and permit the parents to care for the child at home.

In this connection some figures given by Campbell,⁹ obtained from the records of the Los Angeles maternity clinic, relative to the success of antepartum therapy in the prevention of congenital syphilis are interesting. I am taking the liberty to use Table I of his article which includes the figures mentioned in the accompanying table.

TABLE I

Therapy	Cases	Negative	Positive	Syphilitic
1st-3rd mo	70	69	1	1.42%
3rd-6th mo	143	131	12	8.39%
6th-9th mo	103	48	55	53.39%
Total	316			

These results most emphatically are an indication that syphilitic mothers should be treated early in pregnancy to prevent the occurrence of congenital syphilis. If a routine Wassermann were taken on all pregnant women and therapy instituted when necessary, the number of cases of this type would be reduced to a minimum.

Conclusions

1 Juvenile paresis may occur in only one of twins.

2 Such a phenomenon might be explained on the basis that in the case of the healthy twin a spontaneous cure has taken place *in utero*.

3 The prevention of congenital syphilis is best accomplished by early antenatal therapy.

4 A routine Wassermann should be taken on all pregnant women to prevent the occurrence of congenital syphilis.

placenta, but larger trypanosomes probably cannot⁴ Finally the fact that prepartum therapy is more successful than postpartum therapy has also been offered as proof⁵

In spite of this illuminating data the explanation for the occurrence of syphilis in only one twin still remains hazy, particularly in the case here reported, inasmuch as the twins, as far as can be determined are identical in character and therefore necessarily have the same placenta and originated from the same ovum Dennie⁶ in 1924 reported a case of lues involving the central nervous system of an identical twin which seems to parallel in many respects the one under consideration In cases like this it is the belief of some investigators that inasmuch as both offspring have been exposed equally to infection from the mother and one is free of disease, the latter must have developed an immunity to infection *in utero* We know that a certain percentage of acquired syphilis clears up of its own accord without treatment and the same mechanism by which this occurs might explain the negative findings for the healthy twin described in this paper

A word relative to the incidence of congenital syphilis as a whole may be apropos Solomon⁷ et al estimate by means of an average of figures obtained from hospitals in various parts of the United States and Europe that probably five per cent of children admitted to hospitals are afflicted with congenital syphilis The upper limit of these figures is twenty-two per cent, the lower 17 per cent He also states that the symptoms of congenital syphilis may appear at any age from babyhood through adult life, and that some congenital syphilitics go through life with hardly a symptom or sign In reference to cases similar to the one which I am reporting, he says further that juvenile paresis frequently develops in children who have shown no marked symptoms of congenital syphilis prior to the onset of those referable to the central nervous system He gives the average age of onset as fourteen years remarking however that cases are described in the literature as young as eight and as old as twenty-three Many of

these cases are mistaken for nonsyphilitic mental defectives

This report concerns identical twins, in one of whom there occurred juvenile paresis, the other being nonluetic. Such an incident as far as the writer has been able to determine is extremely unusual It is most common to see both twins infected or for both to escape infection rather than for one alone to be involved.⁸ These twins appear to be identical because they are both of the female sex, have the same facial features, and possess like coloring of hair and eyes The patient in question is smaller in stature than her twin sister, but this could be accounted for by the fact that she has had a chronic debilitating disease Accurate information relative to the type of placenta is not available The father states that he saw only one after-birth No record of this phase of the labor which occurred at home was kept by the attending physician

Case Report

N A, an Italian girl of thirteen, was admitted to the Utica State Hospital from the Rome State School for Mental Defectives, where the cause for her mental defect had been diagnosed juvenile paresis

Father learned of his luetic infection in 1913, and her mother contracted the disease in 1915 Her first, second, and fourth pregnancies ended in a miscarriage at the third, eighth, and second months respectively The third, fifth, and sixth pregnancies went to full term and the twins constituted the fifth pregnancy All the living children, of whom there are three, excluding the patient, have negative Wassermann tests

Patient was bottle fed and walked at fifteen months Parents state that she cut several teeth when nine months old which she lost before the age of two Had measles and mumps at ten Parents noted that patient was not as bright as the other children She entered the first grade of school at seven but made no progress She was therefore sent to a special class but because of the distance of the school from her home she did not continue to attend

She was admitted to Rome State School July 27, 1933 as a mental defective, where her blood and spinal fluid Wassermanns were found to be positive Intelligence tests performed classified her as an idiot She

"I am full of contempt for my utterly base and selfish attitude."

"The world around me has become one large motionless, meaningless canvass"

"In attempting to escape the monotony of the scene I try sleep, but it only refreshes my body. My mind feels like that of a deep sea diver"

"Feeling insecure and impotent to rectify the abuses of the world, I retired into myself and built an equitable world where I would be able to live. The other world was unbearable."

"I began very early, as a child, to hate my family, my surroundings and the world in general"

"I am behind a wall and I am timid and apprehensive of the dangers that lurk on the outside of the wall"

"Any show of friendship, the salutation of 'hello honey' or 'dear' from members of my family, sets my blood boiling"

"I know, I blame the world and the people for my internal conflicts"

"I went to a prostitute and her kiss on my cheek almost led me to smack her. All day after that I was in an ugly mood"

"The other day I was offered some candy by a girl. I refused with thanks. After sitting around fruit was placed on the table and I was offered some. Again I declined. Then the girl twitted me about my fear to accept anything as that would place me under obligation. Somehow she had struck the nail on the head. Always I had refused things and services for fear I would become obligated. I knew I would have to reciprocate the favor in one form or another"

"In all my dealings I was an honest man like Scrooge. Measuring and weighing every act for the benefit which might accrue to myself"

"I always paid more than my share because I couldn't bear to think of hurting my pride and vanity"

"I cannot work. Showing up in the shop is becoming a perfunctory affair. If I were offered a job I would try to get out of it."

"No sooner do I espouse some cause where sacrifice might be involved than something in me mocks my words. There isn't a thing in the world for which I would lay down my life or sacrifice anything"

"I went up to the old whore house. But the Spanish girl wasn't there. I prefer the Spanish girl because I feel superior to her. Therefore I do not fear her. There was another woman but I could not enjoy her because all desire had left me. I felt I had completely retired into myself. I

could have resurrected the dead rather than revive sexually. But when that happens my pride is not humbled. In street language, I can take it."

"It's funny how blind one can become to his own actions and thoughts. All my life I hated reformers and authority. Instead of looking into myself for the cause I hated the people."

"Like some people cannot handle their liquor I cannot handle my emotions"

"As a rule I cannot bear to feel inferior. I never go back to a situation where I feel that I have failed."

"I'm tired of being impersonal. It makes life too drab"

"One day is like another and apparently I have lost all ambition. Yet somehow the pressing problems of the day are getting due consideration. I take my undeserved money without doing anything in return. I accept the help without working, although I am physically, not mentally, able. I feel no repugnance, guilt or scruple. The moral problems have ceased to torment me. I have become insulated."

"In my dealings with people, though they may not notice it, I am partonizing and condescending"

"I crave friendship and someone to talk with. I crave praise like any child. I can have all these except for my mistrust, self-mistrust and distrust of others. I am invited to visit people, but I always refuse. I have a deep-seated fear of people. For days at a time there is movement of distress going on in me. I sit and stare at nothing. I try to sleep, but the thing that is bothering me never sleeps. I go down and walk the streets. I look at the posters of the movies but I have no desire to go in. It's tormenting to realize these things and be unable to do anything about them except wait until it has run its course"

"The conflict is within myself, but I make others act as the accusers. For instance, I sit in a cab and suddenly I begin to fear the cabman has a suspicion that I haven't enough money to pay him."

"I need a new tie, but there is something in me that doesn't care whether I dress well or not. It only wants excitement. I go in and choose a tie, but I don't know whether I like it or not. It's the same with everything I do"

"I am always tired and weary and can sleep fifteen hours at a stretch"

"I am always trying to impress people with my sophisticated outlook and making them aware of my boredom as though it were something to be proud of"

"Within me there is a living being that has lost contact with the outside world"

5 All mentally defective children should be regarded possibly syphilitic until a blood and spinal fluid Wassermann has proven to be negative

References

- 1 Solomon, H C and Solomon, M H *Syphilis of the Innocent*, United States Interdepartmental Social Hygiene Board, Washington, p 37, 1922
- 2 Jeans, P C and Cooke, J V *Amer Jour Dis Child* 22 402, 1921
- 3 Campbell, H S *Western Jour Surg, Obs and Gyn*, 42 264, 1934
- 4 Hoffman, E *Arch f Dermat U Syph*, 160 161, 1930
- 5 See Reference 3, p 265
- 6 Dennie, C C *The Medical Clinics of North America*, 7 1222, 1924
- 7 See Reference 1, p 52
- 8 Cooke, J V and Jeans, P C. *Amer Jour Syph*. 6 577, 1922
- 9 See Reference 3, p 266

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, D R P H, New York City

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

How the Schizophrenic Speaks

One of the symptoms of *schizophrenia*—and its most characteristic symptom—is a tendency of the patient to become *separated from his environment*

There is a *schizoid* condition which is not yet *schizophrenia* and which is extremely spread everywhere among persons who are regarded as in adequate mental health, who are able to function and are more or less adjusted to their surroundings. A large part of what is usually called normal humanity has *schizoid* trends

The extreme cases constitute the developed mental disease called *dementia praecox*, which shows various degrees and forms

Between these states we have the large number of schizophrenics, met in all walks of life and by all *medical practitioners* without exception. They may come for their mental disturbance or for some physical or somatic complaint. If we are not able to solve their problems, if for therapeutic purposes we may need the aid of the specialist—which should generally not be the case—everyone of us should at least know and diagnose the disease and understand the patient's difficulties

This is especially important in the slightly advanced or *transition cases* where a study of the mental mechanism is quite feasible and a return to what is called normality is frequently still possible

The patient's speech is our greatest help in recognizing his condition. Just as there is a more or less typical physiognomy for

each mental disease group, so there is a sort of language physiognomy, as it were, which is particularly characteristic for *schizophrenia*. I am presenting, therefore, a series of hitherto unpublished quotations, as far as I know never assembled in this form, taken from my notes about their manner of talking, from some of their letters and diaries which, I believe, are all illustrations of the way in which the typical schizophrenics express themselves. These quotations should enlighten us about their thoughts and should explain their behavior. I have chosen intelligent and cultured individuals because their speech is more interesting than that of the illiterate and because it clarifies their chief cause for maladjustment, their separation from the rest of the world

The examples of the light cases are followed by those of the more advanced and, as a contrast, I am giving at the end some instances of the most deteriorated cases

Here is how the ordinary schizophrenic speaks

"Strange how all desires have left me!"
"I always felt I was incompetent and my employer was overpaying me."

"I'm never worried in the least as to the consequences of my actions"

"Some deep change is coming over me"

"I am at a loss what to do with myself"

"The whole world has been uniform and timeless. Everything appears remote. Inside of myself I am developing confidence"

Read before the East Flatbush Medical Society, Brooklyn, January 6, 1937

SERUM IN PNEUMONIA

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 4—Aborted Pneumonia

Report from the records of L. R. Smith, M D, Watertown

"Mr N, a white laborer, age thirty-five, was first seen January 5 at 12 00 mid-day in bed, acutely ill. A history was obtained of a head cold of one week's duration. On the morning of January 5 while at work, he was taken with a severe chill at 9 30 A.M. which lasted about an hour. He returned home and during the interval developed headache, generalized pain in back and limbs, and sharp pain in his right chest associated with breathing.

"Examination revealed temperature of 104.2 (oral), respirations thirty, pulse 120. The breath sounds over the right upper lobe were distant. Otherwise, the chest was negative and there was no other relevant physical signs of significance.

"A good sputum specimen, which was definitely from the lung, was collected and sent to the laboratory. It was examined by the Neufeld method and the presence of Type I pneumococci was reported.

"The patient gave no history of previous serum administration or allergy and the intradermal test with diluted horse serum proved negative.

"Twenty c.c. (25,000 units) of Type I antipneumococcus serum (New York State Department of Health) were given at 6 30 P.M. (January 5) and the dose repeated again at midnight. The serum was undiluted and in both instances well-tolerated.

"The following morning the temperature was normal and remained so thereafter. Physical signs receded and the convalescence was entirely without event. The patient was discharged from my care one week later."

Dr Smith, in reporting this case, stated that in his opinion, the pneumonia had been aborted before the parenchyma of the lung had had an opportunity to become grossly involved. Indeed, the evidence submitted by him entirely supports this contention.

This case illustrates in a striking manner the usefulness of early serum therapy in the so-called abortive cure of pneumonia. The evidence in this instance supporting

the diagnosis of pneumonia must be considered quite irrefutable as must be the efficacy of the therapeutic measure employed.

It is also worthy of note that this case was promptly and adequately treated in the home without the benefit of hospital equipment and assistance.

Case 5—Serum Treatment of an Asthmatic Pneumonia Patient

Report from the records of John H Stauffer, M D, Canton

"B H, a fifty-nine year old Jewish male, was seen early on the morning of November 23 at his home to which he had been brought after having been found in the street the preceding evening in a completely disoriented condition.

"He complained of severe pain over the lower portion of the right chest posteriorly and extending into the right axilla. He was cyanotic and dyspneic, respirations being labored and asthmatic in character and was raising sputum which was frankly bloody.

"Examination revealed a temperature of 104, pulse 140 to 150 but of good quality, and respirations of 32 to 40. There was dullness to percussion and diminution of voice and breath sounds over the right base extending into the right axilla. Moderately coarse rales were heard over the same area. The upper portion of the right lung and the entire left lung showed typical asthmatic expiratory wheezes and sonorous rales.

"The patient was admitted to the hospital about noon of the same day. Sputum examination showed Type I pneumococci. During this period, he had been given intravenous glucose and adrenalin for relief of his asthma.

"A history obtained from his family revealed that he had had severe bronchial asthma during the fall, winter, and spring months for the past six years and that the condition was usually greatly aggravated by any respiratory infection.

"A skin test with diluted horse serum

"I have contempt for most of the thoughts of the average person I meet."

"Everything I do is with an aloof and reserved manner. I treat people with extreme courtesy and act as though I were to the manor born. It simply is a trick to cover up my shyness and feeling of insecurity."

"Nothing seems to interest me. I am bored to death."

"I am fighting in the dark with phantoms. I feel more sure of myself only when my moments of doubt assail me. The apparent lifelessness around me sends my heart throbbing like an airplane motor."

"I am cut off from everything and unable to rely upon this world."

"Before going to sleep I feel sad, unreal."

"Life is but a passing phase. I am fast asleep and afraid to wake up."

"I feel like a spirit who would like to talk to people but can't."

"I could go to the world's end and not get a thrill out of it."

"I try to think clearly, but there is something blocking my thoughts and memory."

"How I would like to tear aside the veil that stands between me and life!"

"While everything around me seems unreal yet the movies which are unreal appear to be the only thing that is real. They are clear and distinct. I have no veil before my eyes. I enjoy it. I laugh at the same time as all the people around me, *which I rather resent*."

"I must find a way to break down my inability to get in touch with life and live like other people."

"When I see and hear some of the idealists who live in their fantasies I have a hint of myself."

"I can't break through and act human."

"The world and the people appear like disembodied entities."

"I can't understand my shying away from people."

"I'm in a raging mood, yet I don't know why I am disgusted."

"I can't find anything to say to people and I'm tormented by doubt."

"The talk of politics, unionism and everything relating to the realities of life don't interest me in the least."

"I am trembling inwardly. I can't penetrate. I feel as though I had lost the element of time. I don't want to act in any manner, form or shape."

"Yesterday in the restaurant everything became gray, filmlike, indistinct, and unreal."

"I would like to sleep with a woman

for a whole night to see what effect it would have on me. Perhaps it would shed some light on my present *reluctance to have anything to do with them*."

"I am unable to express my thoughts even to myself."

"I am looking for something, I don't know just what."

"I feel an indifference and unconcern, yet an insistent demand that something be attended to. The world appears dead but inside of myself I am alive."

"I am leaving the inevitable consequences for some one else to shoulder. That is what I call cheating in life. And that is what I feel guilty of. There are others who do the same thing, but they do not see it so clearly because they are actors while I am *a spectator*."

"That strange unease and fear has me again in its grip. I don't understand it but in a *dim* way."

"My mind feels as though a *wall* blocked it off from its conscious self. I talk to people with never any assurance that I will be able to carry on my end of the conversation. Many times I answer in monosyllables because I don't know what to answer—because of this *cutting off*."

"A something other than my intelligence has the power to overwhelm my intelligence and make me *retreat into myself*."

"I am tongue-tied, memoryless, feelingless in the sense of some kind of paralysis."

"I have neither the confidence, ability, courage, stamina, perseverance and memory to hold down a job in competition with others."

"I doubt whether I will ever get out of this condition so as to participate in the world's work."

"I can't understand the desire to peep at women's breasts on every occasion when I see them dressed. Yet when I see them nude and exposed they don't mean a thing to me."

"If people found out what I really am I would be ostracised, boycotted, chased and denied all privileges that go with communal life" (A desire).

"When conversing I am making use of my old trick of becoming intensely interested in people, finding out their viewpoint in life, all the places they have visited, and then discarding them like the rinds of an orange."

"Everything was bleary and almost appeared like a hallucination."

"The world and all its activities become *bizarre and distorted*."

"I act as though there was nothing to worry about."

(To be concluded in next issue)

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"I am tongue-tied, memoryless, feelingless in the sense of some kind of paralysis"

"I have neither the confidence, ability, courage, stamina, perseverance and memory to hold down a job in competition with others"

"I doubt whether I will ever get out of this condition so as to participate in the world's work"

"I can't understand the desire to peep at women's breasts on every occasion when I see them dressed Yet when I see them nude and exposed they don't mean a thing to me"

"If people found out what I really am I would be ostracised, boycotted, chased and denied all privileges that go with communal life" (A desire)

"When conversing I am making use of my old trick of becoming intensely interested in people, finding out their viewpoint in life, all the places they have visited, and then discarding them like the rinds of an orange."

"Everything was bleary and almost appeared like a hallucination"

"*The world and all its activities become bizarre and distorted*"

"I act as though there was nothing to worry about."

(To be concluded in next issue)

NEW YORK STATE JOURNAL OF MEDICINE

Published Semi-Monthly under the Auspices of the Journal Management Committee

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EDITORIALS

Flirting with Osteopathy

There appears to be a high degree of organization in the current legislative courtship of osteopathy. Simultaneously at Washington and Albany politicians are laying statutory offerings at the feet of the osteopaths.

In the National Congress a bill has been proposed which would place osteopaths in the same category as physicians and surgeons. Neither osteopathic theory nor osteopathic education warrants a measure of this kind.

If osteopaths desire to practice medicine and surgery, they should abandon sectarian dogma and take the medical course. They cannot give their professional allegiance to a single principle of limited applicability and expect the right to practice medicine, with its great catholicity. As long as their training falls short of the physician's rigorous preparation, legislators will find it difficult to justify extension of their prerogatives.

On the basis of merit, the Judiciary Committee should make short shrift of the Drew Act. However, one of the members of that Committee is Congressman William T. Byrne, who has sponsored several osteopathic bills in New York State. It will not be surprising if he makes a stand for the Drew measure, so physicians must prepare for a sharp fight.

In New York the situation is no less disquieting. Assemblyman Milmoe will sponsor an osteopathic bill which the Board of Regents has approved without consulting the medical profession. This is contrary to the best traditions of the State.

The standards of medical practice have reached an exceptionally high plane in New York. One reason for this is the splendid cooperation which has existed between organized medicine and executive agencies of the state for the past fifteen years. The action of the Regents in endorsing a quasi-medical bill without consultation with the medical profession violates this accord. It is a blow to the public health from an unexpected quarter.

Periodic Health Examinations in Industry

There is no group that is more actively engaged in propagating the knowledge of what preventive medicine means than our own group of organized medicine. We first convinced our individual members of its desirability, then afforded courses and lectures for their training in this field and only then began the education of the public to avail itself of preventive medicine as a method of promoting health and prolonging life.

(1-100) was done carefully and observed to be negative. An ophthalmic test with horse serum (1-10) was also negative. In view of these negative tests, forty cc (50,000 units) of Type I antipneumococcus serum (New York State Department of Health) were administered with considerable caution at about 4 00 P M, approximately twenty-four hours after the onset of fever. The serum was given undiluted and was well-tolerated. Small amounts of adrenalin, however, were given at fairly regular intervals for the asthmatic condition.

"At 11 00 P M a second dose of 50,000 units was given. This was again preceded by skin and ophthalmic tests for horse serum sensitivity, both of which were negative.

"During the night and the following morning there was marked improvement in his general condition. From that point on his recovery, though gradual, was steady and at the end of a month his lungs had entirely cleared.

"It is of interest to note that during a period of two months since his recovery, he has remained entirely free of his usual asthma."

This case was selected for publication because it illustrated the successful administration of serum to a patient who not only gave a history of asthma but who was suffering from severe asthma at the time. This case, therefore, brings up several points of interest.

While the occurrence of bronchial asthma is not to be considered as definitely contraindicating serum therapy, it has long been recognized as an indication for considerable caution in its administration. The

precautions used in this case of employing both the intradermal and ophthalmic tests were, therefore, well advised.

It is possible to speculate in this connection that, when sufficient material is available upon which to base conclusions, it may be found that the type of asthma is of some importance. That is to say, between the danger to a case of extrinsic asthma or that to a case of intrinsic asthma, such as the case cited, the latter may represent the safer group.

It is also interesting to note that "small doses of adrenalin" were given at regular intervals before and during serum administration because of the asthma. One judges that no definite change occurred during the serum administration which suggested a reaction and yet it is possible that without the use of adrenalin it might have occurred.

The general question of serum treatment in the face of a history indicating sensitivity or of a strongly positive skin or eye test is occasionally one of extremely difficult decision. Certainly, no rules can be made which would apply under all circumstances. The question, therefore, becomes one of pure judgment in which the chances of recovery untreated must be balanced against the risk of a serum reaction. In a case as obviously critically ill as the one presented or in the presence of a positive blood culture, the prognosis without the use of serum can, perhaps, be considered poor enough to justify serum treatment even though there be some danger attached to it. Such risk should only be undertaken, however, with the full understanding and consent of the patient's family as in the case of a major operation.

FRESHMEN ARE TALLER, HEAVIER, YOUNGER

In making a yearly average of the height, weight and age of 8,964 young men and 4,124 young women entering the University of Cincinnati from 1916 to 1935 Laurence B. Chenoweth, Cincinnati (*Journal A.M.A.*, Jan 30), finds that the results show that freshmen are admitted at a younger age now than they were twenty years ago. Freshmen are taller and heavier today than they were twenty years ago, in spite of their younger age. Judging from evidence from the past, mankind in civilized countries is steadily growing taller. There is no definite answer to the question of what causes this to be true, but the probable

causes of the increase in stature and weight of young people are better nutrition in infancy and childhood, less communicable disease, higher standards of living, and a higher degree of health intelligence among people in general. Undoubtedly those who have contributed most to this state of affairs have been physicians (especially pediatricians), nutritionists, public health workers and educators. Studies in the end product of the public schools (college freshmen) seem to indicate that a definite racial betterment is taking place, and that the improvement is only partially influenced by social and economic position.

Apply this test to the mortality rates of England, Scotland, Wales, and the United States, as Dr Hoffman has done, and what do we find? Vital statistics fail completely to support the claims made for compulsory health insurance as to the value of medical benefits to the insured. There has been no corroborative decrease in deaths in insured countries, even from diseases most subject to human control.

Since generalizations rarely satisfy, let us examine some of the actual statistics. The latest year for which official figures are available is 1934.

In England and Wales the mortality rate from erysipelas—an infectious disease which can be controlled by prompt, efficient medical care—rose from 26 in 1930 to 36 in 1934. The United States showed a drop from 21 to 15 for the corresponding period.

The cancer death rate for England and Wales in 1934 was 156.3 per 100,000, as compared to 106.3 in this country.

For rheumatic fever—also a condition in which careful medical supervision and prompt attention tell—the English death rate declined from 38 in 1930 to 34 in 1934. The same four years in America showed a decline from 25 to 18. Climatic factors alone do not account for this—or the fact that chronic rheumatism increased in England and Wales while the rate for this country remained stationary.

The 1934 death rate for anemia-chlorosis was less than half in the United States what it was in England. Furthermore, the English figure represented an increase while the American showed a decline.

Taking twenty-six important causes of death, in all but eight England and Wales led this country in mortality. Out of forty-two common causes of death, thirty-two were less prevalent here than in England and Wales. Statistics for Scotland accentuate this picture. Not only death and morbidity rates, but the rate of mortality decrease, proclaim the superiority of the American system to

the medical benefits obtainable under compulsory health insurance.

Do the people of the United States desire to exchange its morbidity and mortality rates for those of countries depending on compulsory health insurance for medical service? There can be only one answer, in view of our preponderantly more favorable vital statistics.

Before the Legislature takes action on the Neustein Act, it should weigh the convincing, unbiased testimony in Dr Frederick L. Hoffman's review of "Compulsory Health Insurance and Disease Control." To facilitate the distribution of this valuable data, the Public Relations Bureau of the Medical Society of the State of New York has made the booklet available to those interested.

Features of the Section Meetings in Rochester

The discussions and the presentations of the section meetings of our State Society have been distinguished in the past for notable contributions to the advancement of the science and art of medicine. This year, there will be no exception. For example, Dr W. R. Campbell, a distinguished member of the clinical research workers of the Faculty of Medicine, Toronto University, will present the latest experiences and conclusions relative to the use of protamine zinc insulin. This is vastly important to the practicing physician, because the topic of protamine insulin is so new, and rapid changes have come in both the original product and its modifications that even the published literature has lagged behind achievement. Dr Campbell's presentation will be found intensely practical, and the visiting physicians can take a valuable therapeutic remedy home with them so as to better handle the diabetic patient.

Polycythemia, sometimes described as "Vaquez disease," or "Osler's disease," and not infrequently termed "Vaquez-Osler disease" is a strange and unusual malady. Assuming that there must be a mechanism whereby the production of

In some phases, the effort put forth has been more than repaid in the results achieved. The reduction of the number of contagious diseases by immunization, the earlier recognition of the precancerous states and of incipient cardiac disease, and the avoidance of a large number of industrial diseases are but a few of the notable milestones. But preventive medicine must be carried further. It must and can eliminate a great many catastrophes that are the result of conditions under which men work.

The worker in the stone industries assuredly can be spared the dread of silicosis by repeated physical examinations. Workers in compressed air should be examined before being engaged to ascertain the status of their ears and hearing so as to obviate the aggravation of any impairment that might already exist. Other industries have their problems which, in a large percentage of instances, could be solved by the efficiency of periodic examinations. In this aspect of our program there are other elements which play a role in hindering our progress. An individual, knowing he has a defect which would prevent his getting employment in his field, might object to a voluntary examination. Labor organizations erroneously might feel that employers requiring complete physical examinations were discriminating against their members.

A study should be made to formulate some means whereby our great body of workers can be protected against the medical diseases attendant upon industrial pursuits to the same extent as they are guarded against surgical accident. Whether a compulsory periodic physical examination is the answer remains to be seen.

New York State Red Cross Highway First Aid

The increasing number of highway automobile accidents, prompts consideration of a problem which is local as well

as national. The burden of caring for these accident cases falls upon localities and physicians immediately and during convalescence. The economic set-up is a problem to both physicians and communities. Were these accidents financed by personal, national or interstate insurance, the burden on both physician and community would be small. Unfortunately this happens not to be the case, and until some form of relief is established First Aid on the highways remains a problem which must be met.

In Belgium, France, and even in Germany, the Red Cross societies handle this first aid, because based upon the experience gained in the last war, correct first aid procedures applied early by those trained to administer it, saves much pain, disability, time, and money in convalescence.

In America, our Red Cross has taken up this tremendous problem, and without expense to the physicians, has undertaken to establish on our highways, First Aid Stations equipped with supplies for emergency work. At these highway stations, there will be trained medical personnel.

Every citizen driving an automobile should have knowledge of First Aid procedures, and it is suggested that this be an added requirement for securing a driver's license. Teaching this emergency First Aid should be a duty of physicians. The local chapters of the Red Cross in this State should energetically undertake this work with the hearty cooperation of the profession. We bespeak support of the scheme to the end that the hazards of travel on our highways be lessened.

The Ultimate Test

"The death rate is the ultimate test of skill and attention in medical practice." So speaks common sense. So finds Dr. Frederick L. Hoffman, for forty years Vice-President and statistician of the Prudential Insurance Company.

orable reports has appeared in the literature concerning this mode of treatment. The sulfonamide has, to a large extent replaced the azo dyes because the absorption of the former from the gastrointestinal tract is better than that which follows the intramuscular injection of the azo substance.

In experiments directed toward the investigation of the mode of action of the sulfonamide, Colebrook, Buttle, and O'Meara¹ found this drug to possess a bacteriostatic and bactericidal action against small numbers of hemolytic streptococci in culture medium and in blood. It was further established that the blood or serum of human beings and monkeys, taken after the administration of the dye had a bacteriostatic and bactericidal action against hemolytic streptococci greatly in excess of anything encountered in normal blood or serum. The authors believe that this may prove to be the decisive factor in the therapeutic activity of this substance.

Clinically the administration of the sulfonamide at present is recommended for the treatment of virulent hemolytic streptococcal infections. It is still too early to pass any decisive opinion as to the efficacy of this therapeutic agent. Too short a time has elapsed since its employment in humans for a full knowledge of the beneficial effects as well as the untoward ones to have been acquired. In the meantime it is better to proceed cautiously and not abandon the established modes of antistreptococcal therapy which, up to the present have yielded good results, until more is learned of this new remedy.

CURRENT COMMENT

FROM THE *New York Times* of March 7, we learn that "The Merchants Association of New York announced *** yesterday its opposition to the proposed Health Insurance Law on the ground that it would increase the 'menace of governmental competition par-

ticularly in a field now adequately and ethically served by private enterprise'."

"The association asserted that 'imposition of additional tax burdens on employers and employes for so-called social-security purposes, at a time when the payroll taxes imposed by the Federal and State programs now in force are already assuming burdensome proportions, serves but to increase the folly of even seriously considering enactment of the measure * * *'"

"BY ALL WORKING TOGETHER toward a common end we should be able to improve medical education hospital care and post-graduate medical instruction in the United States and thereby do more than could be done in any other way to improve the private and public health of the future"—Dr Ray Lyman Wilbur is herewith quoted from a paper which he read before the Thirty-Third Annual Congress on Medical Education and Licensure in Chicago on February 15.

"AMERICANS HAVE BECOME IMBUED with the idea that to choose their own physician was a God given right. Europeans are glad to accept whatever was given them by overlords and know that it is useless to protest"—A statement by the *Saint Louis County Medical Society Bulletin*.

'IGNORING FOR THE MOMENT many secondary meanings, science may be defined as the classification and coordination of factual knowledge, art as the utilization or application of knowledge to accomplish desired results. In the former case, knowledge is static, in the latter it is dynamic *** Medicine is both an art and a science. Any comparison as to relative importance would be invidious. Whether consciously or unconsciously, the physician in the pursuit of his daily duties must needs be an exponent of art no less than of science. Realization of this truth should be an inspiration as well as a constant incentive."—Dr A B Cooke, writing in *California and Western Medicine* for February, brings to mind once more something that the "socializers" always seem to overlook.

' *** OUR INDEFENSIBLE SLUMS and our inadequate building industry have long been with us, but have been generally recognized only in the last few years. Whether the incidence and recognition of these factors will fuse into a determination to meet

¹ Colebrook, L. Buttle, G. A. H. and O'Meara
R. A. Q. *Lancet* 2 1323, 1936

red blood corpuscles and hemoglobin is permitted to replace ordinary wear and tear, or to rapidly regenerate unusual losses, this disease has been thought to be a disturbance either of one or both of the controlling influences in the production of the red corpuscles and the hemoglobin. Dr Kenneth R McAlpin will present some new aspects of the problem this disease presents. Dr David F Gillette of Syracuse will present a study telling of the management of intraocular foreign bodies. The value of the report is obvious. Dr Ralph Almour of New York, one of the pioneer workers in the development of the therapy of petrositis, will differentiate for the clinician progressing cases from those undergoing regression. The whole topic of petrositis is so new, its clinical import not yet generally appreciated by general clinicians, and the scientific articles still in the state of intense discussion, that a clarification of the cases urgently demanding operation from those which are in process of spontaneous healing, will make a notable contribution to our general knowledge.

Dr Harry K Tebbutt, Jr of Albany experimented upon twenty immature male, and twenty immature female monkeys, and will report on his observations on the effect of the male hormone upon the nasal mucosa. There is no more difficult situation to be met with in practice than the management of acute pharyngeal stenosis. This topic will be presented by Dr Roy S Moore of Syracuse. The experiences of a psychiatrist in the Police Court by Dr Richard C A Jaenike of Rochester should prove an interesting clinical study. It embraces about one thousand cases of persons who were accused of one or other crimes against society. With a study of the public health aspects of Mental Hygiene by Dr Frederick W Parsons, of Albany, these two papers alone would make worthwhile a visit to the section of Neurology and Psychiatry. The critical estimate of the experience at Stony Lodge with the hypoglycemic therapy of psycho-

sis by Dr, Bernard Gleuck, of Ossining-on-Hudson, adds another outstanding feature.

In urology, Dr Meredith F Campbell of New York City, presents a study of a rarity urogenital tuberculosis in infants and children. This study is completed with the presentation of the indications and the contraindications to surgical treatment. Drs Ernest M Watson and Carl J Leutenaggar of Buffalo report on the remote primary manifestations in urinary tract malignancy. They are particularly stressing cases where the usual, common picture is absent and in its place certain bizarre, nonurologic symptoms become apparent. This presentation should not be overlooked by physicians desiring to educate themselves further.

Naturally, we cannot note and comment upon every theme upon this exceptional program which Dr William A Groat and his associates have assembled. We do not doubt that were another to cull its contents and its list of proffered papers, that perhaps another would have selected other items to stress. Naturally too, we are each impressed with what strikes us particularly. We say this in explanation of the many other papers to be presented at the various scientific sessions of the Rochester meeting, upon which we have neither space nor time to comment now. Upon this however, we can all agree, namely that the program given for our instruction by Dr Groat is truly of exceptional scientific value, and we may, without reservations, congratulate him and his associates at their success in devising so much for our continuing medical education.

Chemotherapy of Hemolytic Streptococcal Infections

Following the original chemotherapeutic success against infections caused by hemolytic streptococci¹ with the use of the complex azo dyes, a series of fav-

¹ Domagk, G. *Deutsche med. Wchnschr.*, 61, 250 1935

orable reports has appeared in the literature concerning this mode of treatment. The sulfonamide has, to a large extent replaced the azo dyes because the absorption of the former from the gastrointestinal tract is better than that which follows the intramuscular injection of the azo substance.

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R. A. Q. *Lancet*, 2 1323 1936

the whole problem in a reasonably integrated way, or whether we shall allow it to drift along in the haphazard hands of the speculative builder remains to be seen ***

"Conceivably the time may be near at hand when, in the characteristic American way, we shall suddenly dart forward at a given moment and begin to cope with an accumulated situation which elsewhere would have been coped with in a more concerted, gradual way. Bills are being introduced in Congress and in the State Legislatures to give public housing a permanent status *** Generally speaking, neither public nor private housing has yet reached really low-income groups ***"

"The whole housing problem * * * takes two immediate forms. How much public low-rental housing shall we get in the next period of prosperity and boom? Will the housing at whatever level be the same speculation helter-skelter product that had to be rescued to the tune of billions in the last depression, or will it begin to measure up to our acquired knowledge in planning, in technique, in social stability and usefulness?"—The medical profession has always had an interest in the housing problems of the nation, and "The Nation Again Weighs A Vast Housing Program" is a timely article by Albert Mayer on the subject, from which we have quoted above. *The New York Times Magazine*, March 14

TO ROUND THEM UP YOUNGER

A step to supplement the annual summer health round-up of pre-school children sponsored by the National Congress of Parents and Teachers—the promotion of periodic medical examinations for infants—was adopted on Jan 11 by the advisory committee

The recommendation, to be acted upon in May at the annual convention in Richmond, Va., was the major item in the 1938 health program planned for 25,000 local parent-teacher associations. The summer round-up aims to teach parents the importance of periodic health examinations for children about to enter school

Local associations canvass communities to locate children of pre-school age, urge parents to have the children examined and check up in the fall to learn if physicians' advice has been carried out.

Under the proposed plan the summer program will be continued, but member locals will be urged to encourage medical and dental supervision of children from one to five as well

The goal of the health project, it was pointed out, is the development of a permanent community program under the leadership of official health authorities

THE "RESERVE LINE OF DEFENSE"

The Woman's Auxiliary to the State Society was organized on March 11 of last year, and "we are very proud to report 11 county auxiliaries, with a membership of approximately 800," writes Mrs John L. Bauer, its President. She adds

"We are slowly and surely progressing. We are informing ourselves on legislative matters, on Public Health questions, and on Preventative Medicine. At the same time, we are meeting socially, becoming acquainted and making closer friendships. These things are happening in County Auxiliaries

"However, we are also coming together in executive sessions as a State Auxiliary with representatives from all eleven county auxiliaries—exchanging ideas, comparing problems—(and solving some, too) with an enthusiasm that is amazing. There is an earnestness of purpose that presages well the powerful force such a band of clear thinking, informed doctors' wives can be in forming a reserve line of defense, alert and ready to be called upon to help combat legislation inimical to Organized Medicine."

The re-election of Dr Donald B. Armstrong as President of the National Health Council was recently made public. Other officers re-elected were Timothy N. Pfeiffer, Vice-President, Dr Maurice A. Bigelow, Secretary

It was announced also that the American Red Cross and the Maternity Center Association have become Active Members of the National Health Council. The Red Cross has been an Advisory Member for a number of years

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked private. All communications must carry the writer's full name and address which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Lymphogranuloma Venereum as a Cause of Rectal Stricture

562 W 164 St
New York City

To the Editor

In reference to the article by Kassebolin and Schreiber, "Management of Labor Complicated by Rectal Stricture" which appeared in the issue of this JOURNAL on March 1, may I make the following observations

The very fact that the material gathered for this article came from a hospital having mainly colored patients, the nature of the pathology described, namely rectal stricture, should focus one's attention on a disease which at present is attracting comment from many observers all over the world, a disease which is perhaps a great deal more widespread than we have been led to believe, namely lymphopathium venereum or Frei's disease. By a strange coincidence, this article precedes directly one by Dr Boris A Kornblith, whom I had the privilege of observing do some original work on this disease at Mount Sinai Hospital

It is not my purpose to describe the disease in this communication, but merely to point out some important facts which appear in the article above mentioned, but which were apparently not correctly evaluated.

Lymphopathium venereum appears most frequently in women, especially in negro women, and results in inflammatory processes, abscesses, and scarring of the superficial and deep lymphatic chains in the inguinal area and in the pelvis. In the female, rectal strictures are usually secondary to a primary lesion situated either in the vagina or cervix. This is frequently the only clinical manifestation of the disease. In females the lymphatics drain from the vagina and cervix into the perirectal glands, and result in rectal lesions such as proctitis and stricture. Such lesions may appear as early as six weeks after the onset of the primary lesion, or come on insidiously, as a fibrous stricture without any apparent discomfort many years after the primary lesion.

The authors state that "the etiology of rectal stricture is debatable." In view of

our present and increasing knowledge of lymphopathium venereum, I beg to take issue with them in this point. Apparently no Frei tests were done in their series of cases, although Wassermann tests were done routinely and found positive in thirty-eight per cent. Until recently syphilis was thought to be the cause of rectal lesions such as stricture, and the presence of a positive Wassermann in thirty-eight per cent of these cases is undoubtedly a coincidental finding and not the etiological factor in the causation of the stricture. I have no doubt but that most of the eighteen cases, if not all, were cases of lymphopathium venereum. An excellent opportunity was lost to observe this disease as a complicating factor in pregnancy.

It seems to me that in a hospital dealing mainly with patients of the colored race, Frei tests should be a routine measure, and in this way we will be able to increase our knowledge of a disease which was first described by Chassaignac in 1859, and to which very little has been added until only recently.

Very truly yours,

HARRY W ROTHMAN, M D

March 4, 1937

I Thompson, R M J A M A 106 1869 1936

Prescribing

144 E 36th St,
New York City

To the Editor

I have noticed recently more or less discussion concerning druggists and prescription work.

As had been said druggists have told me frequently of the type of prescribing so prevalent today referring to the use of proprietary preparations and many times of evidence of too little training in the proper technic of writing a prescription. I am not posted on the amount of time that is given to this very important part of the medical students training in these days but I do know that there was entirely too little in my day.

My father was a graduate of the University of Edinburgh, Scotland and I learned most of it from him. In his time the course was five years and not only were students taught the subject didactically but every student had to serve an apprenticeship of six months in a pharmacy before he could obtain a degree. At his suggestion I spent a good deal of my spare time when an intern in the drug shop learning the subject practically. Can we improve this branch of the medical art in some such way?

Very truly yours,
H WALLACE, MD
LICH 1890

March 4, 1937

Electrosurgery not Coagulation

64 E 87 St
New York City

To the Editor

Last night while attending a meeting at the Academy in memory of the pioneer Dr Frederic de Kraft, who developed the High Frequency Currents in this country, my attention was called by several confreres to an article of correspondence which appeared in the March 1 issue of our JOURNAL.

The letter first comments upon the dissertation of Dr Joseph D Kelly on the subject of the "Present Status of Electric-Coagulation," congratulating the author upon his biased stand in ignoring any of the accepted virtues of the electrosurgical tonsillectomy.

It is most unfortunate that so blatant and emotionally unsound criticism should come at this late date from one who has had many opportunities to verify the perfect end-results of a properly performed electrosurgical tonsillectomy.

We, who have spent years in controlled, scientific, investigation on this subject, (and there is no small number of highly intelligent and capable investigators) have long discarded the sole use of electrocoagulation for the complete extirpation of any tissue. A modification of coagulation is essential to obtain the very purpose of electrosurgery, which is the prevention of shock and hemorrhage.

Almost a decade ago, I demonstrated the perfect end-results obtained in a large group of patients at one of the Academy Meetings. Since then many informed operators have confirmed my findings. It was the late Dr McKenzie, emeritus professor of Otolaryngology at the University of London, author of a volume on the subject of "Diathermy in Otolaryngology" who made the statement

that, "The diathermy extirpation of tonsils will come to the method of choice in the removal of tonsils in adults. It may be of interest to note here that the largest and most thorough clinic in our country employs the electrosurgical follow-up one year after the completion of the orthodox surgical tonsillectomy."

Having had the pleasure of performing the electrosurgical tonsillectomy on a large group of our confreres, and some were otolaryngologists themselves, I wish to state for the benefit of those less erudite or perhaps misinformed, that the electrosurgical tonsillectomy is a most helpful adjunct in our field of otolaryngology. Mastery of the modified coagulation technic is more difficult than the simpler dissection and snare methods now in vogue, in our orthodox surgery.

You now have at hand an article, accepted some time ago for publication, on "The Control of Pain and Hemorrhage in the Electrosurgical Tonsillectomy," which would help to clarify any misunderstanding in this newer field.

Trusting that this cursory explanation may help to exonerate those of us who "have knowingly been practising quackery and fraud."

Yours most truly
LEWIS J SILVERS, M.D

March 4, 1937

2701 Grand Concourse
New York City

To the Editor

I read the letter signed by Doctor Joseph Popper on page 507 of the March first issue of your JOURNAL.

I am not a nose and throat specialist, nor am I especially interested in the controversy concerning Tonsillectomy vs Electric Coagulation. However, as a physician interested in the scientific progress of all medical endeavors, I wish to take strong issue with Doctor Popper's conclusion "those knowingly practicing this method (Electric Coagulation) may justly be suspected of quackery and fraud."

All physicians have seen innumerable cases of secondary tonsils following surgical removal. Are we to conclude that these surgeons are guilty of quackery and fraud?

Hernias recur in the hands of capable surgeons. Biliary calculi often recurs after the removal of the gall bladder—are these surgeons to be suspected of quackery and fraud?

Many physicians see patients whom they feel require the removal of tonsils, but in whom there is a definite contra-indication

for surgical procedure. In these selected cases electric coagulation of the tonsil is unquestionably a therapeutic and ethical procedure.

Is it possible that Doctor Popper will next include those of us who refer selected cases for electric coagulation as a party to fraud and quackery?

Very truly yours,
NORMAN STRAUSS M.D., F.A.C.P.

March 10, 1937

Pneumatology

40 E 61 St.,
New York City

To the Editor

No advocate of the term, "Pneumatology" however ardent he might be could fail to be amused by the quaint interpretation which appeared in the editorial "Pneumatology," page 311 in the NEW YORK STATE JOURNAL OF MEDICINE, for February 1, 1937

We are willing to admit that in the shadowy land of asphyxiation it is sometimes difficult to determine just where the mortal frame yields domination over the spirit of Mr Jones. In this sense, we do deal with the spiritual

In the name of consistency, however, if our interpretation is to convey Alice In Wonderland impressions, we would suggest that the Surgeon remain a barber, and that the Physician limit himself to the use of physic

Somehow, the lay interpretation, (New Standard Dictionary of the English Language, Funk and Wagnalls, New York and London, 1927) of Medical terminology is not entirely satisfying. Curiosity has urged us, therefore, to consult authors of Medical Dictionaries, including, Stedman, Lippincott, and Dorland. These references are as follows

Pneumatology The science dealing with air or gases, their physical and chemical properties and among other things their therapeutic application. Stedman, 12th Edition, 1934, page 853

Pneumatology The science of gases and their therapeutic application. Lippincott's new Medical Dictionary, Third Edition, page 751

Pneumatology The sum of what is known regarding gases and air and

their therapeutic application. American illustrated Medical Dictionary, Dorland, 1925, page 898

It would seem, therefore that the substitution of Pneumatology for Gas Therapy is not entirely original with the undersigned. An unbiased mind will very likely find this a satisfactory solution of a present problem

In passing, it may be well to note that Pneumatology, as a terminology, was not proposed by the Society for the Prevention of Asphyxial Death, Inc. The blame for this suggestion is accepted in its entirety by

PALUEL J FLAGG, M.D.

March 2, 1937

What to Expect after Plastic Surgery

12 E Bridge St
Oswego

To the Editor

It has become increasingly apparent to me in the last few years, that we sentence women to the operating table for pelvic surgery without a thought of what the aftermath may be

As I write, it occurs to me that perhaps a physician would be quite at a loss to say what his reaction would be, were he to be castrated. Would he be apt to be facing a postoperative mental chaos? I would guess that we probably all would, in that event. Disclaim the role of sexual urges as we will, it is still rather a potent leaven in human affairs. And when the reproductive organs are removed, there is inevitably some mental readjustment required

I call to mind a very attractive matron of some forty-one or less years, sent to me by her surgeon because of a highly disturbing tic, a gross turning of the head over the shoulder, so that the whole effect was that of a spasmodic, recurrent wry neck

She had had, some few months previously, a complete hysterectomy. The tic developed at once after the patient became ambulant. Careful neurological and ophthalmological examinations failed to reveal any pertinent causes, and much less suggest any cure. Out of the numerous interviews there was evolved the following interesting facts, the patient's husband had always been inclined to be a philanderer,

and consequently she had never felt quite secure in her claim on him. As there were no children, he represented her whole field of emotional dependence. Her description of their sexual life together would not lead you to feel that it had been a startling success. The patient possessed the firm belief that once the uterus was removed, then intercourse could no longer be effected, or in other words, she reasoned that her only means of holding her husband at all, had been removed. The tic, as subsequent successful treatment proved, was the attempt of an immature personality to establish a new hold on the husband's sympathies through a disconcerting illness. Once this had been formulated and accepted by the patient, the tic disappeared, and has been absent for over two years.

Another well-organized, stable English woman, suffered from a highly disturbing sense of guilt after hysterectomy, because she felt that she could no longer play her part in the marital relationship. She felt that the operation had completely unsexed her, and that notion, plus the fact that intercourse was slightly painful, (due in part to a fore shortened vagina) grew to the erroneous conclusion that she no longer loved her husband. This tormented her until she became highly disturbed and depressed. With careful explanation and encouragement, gradually she grew to understand that her loss of libido was really a physiological phenomenon due to age, and

not a result of operation, or loss of regard for the partner.

As an intern I clearly can picture a fat, dull-witted female awaiting hysterectomy in a charity ward. The night before the operation I stopped at her bedside while making night rounds and she said, "Doc, are you goin' to take out all my insides?" I enthusiastically reassured her that we were, and then she said, "Leave a few sparks in, will you?" As I consider this patient now, I can understand that even the dull-minded individual has some qualms over being surgically unsexed.

To be sure it must be confessed, that one is far from knowing actually what happens after removal of the sexual organs. There undoubtedly is a biological aspect, and without question an endocrine crisis is precipitated, but also we have good reason to believe that there is a psychic dilemma initiated.

It appears that preparation for a pelvic operation should entail a careful explanation of what the patient can reasonably expect afterwards and, that the operation does not necessarily spell sexual extinction. To my mind, thus properly executed, will forestall many pitiful nervous reactions after surgery of the female generative organs.

Very truly yours,

C. K. ELDER, M.D.

February 8, 1937

MORE MEDICAL AID FOR SPAIN

A Women's Committee for Medical Aid to Spain, including in its list a number of distinguished members of various professions, has undertaken to send at least six doctors with an American ambulance unit to Spain, where an American Base Hospital is being established under the leadership of Dr. Edward Barsky, New York surgeon of the Medical Bureau of the American Friends of Spanish Democracy.

The ambulance unit being organized under the supervision of leading medical authorities of Harvard, Yale and Johns Hopkins universities, has the active support of such women as Dorothy Parker, Babette Deutsch, Margaret Bourke-White, Beatrice Kaufman, Genevieve Taggard, Margaret Fisher, Elinor Curtis, Agnes E. Benedict, Carol Weiss King, and others.

FOR WHOSE BENEFIT?

Every proposal for change in medicine should be tested with the question "For whose benefit?" Unless the change will help, either directly or indirectly, in the fight against disease and death, it cannot be justified. The fact that it may increase the income of physicians, help pay the interest on hospital investment, or provide

salaries for a body of administrators, unless it will also improve medical service, is no justification. This is a simple test, but applied strictly to many of the proposals for medical changes before the public at the condemnation.

—*Jour. A. M. A.*

SYRACUSE ACADEMY OF MEDICINE

VARIOUS IDEAS ON MANY SUBJECTS

EDWIN H SHEPARD, M D, *Syracuse*

From great antiquity the tale has come own to us that swans sing most sweetly just before their end. Whether or not swans sing at all, sweetly or otherwise, I do not know, but the idea fits in most appropriately with the retirement of a president of The Academy of Medicine. Designated never again to be president or to give a retiring president's address, he must sing most sweetly, for he will never have another chance. This, then, is my swan song.

An address such as this I presume needs a title. My wife gives me permission to tell a story about her, which I think is appropriate and to the point. On a trip abroad she had an indexed note book in which she kept a record of the important features and events. Under the letter "V" was the all-inclusive heading "Various ideas on all subjects." This suggested a title.

The purpose of the president's address, I presume, is to give counsel to the members of the organization, this indeed in spite of the sage advice of the Roman philosopher who remarks that "many receive advice and few profit by it." It has been my effort not to give too much advice. The great naturalist, John Burroughs, was given a party on his eightieth birthday, and one of his noted guests asked him the secret of his long and happy life. He said, "I've always had a motto, 'Be cheerful and mind your own business.'" Since then, with limited success, I have tried to make this my motto too, and I have found it a good idea. It need not be taken in too narrow a sense, however, for we all are entitled to a lively interest in the things that take place about us, but a proper sense of proportion will show us where our responsibility may cease.

I like to read from my favorite author, Montaigne, the one whom Sir William Osler describes as the "sanest of men." Montaigne lived and wrote nearly 400 years ago, yet you or I can sit down with him and be

as refreshed as by a visit with a wise old friend. Now hear what Montaigne has to say about advice. "When any of my friends address themselves to me for advice I give it candidly and clearly, without sticking, as almost all other men do, at the hazard of the thing's falling contrary to my opinion and that I may be reproached for my counsel. I am very indifferent to that, for the fault will be their's for having consulted me, and I could not refuse them that office."

The older I grow in practice, the more deeply do I venerate the great institution of Medicine. The more humble should we all be, too, when we consider how great it is and how small a part each one of us plays in it. As physicians, I believe we may count ourselves among the most privileged, to be allowed to engage in a work so practical, so ennobling, and so venerated. We are even given a standing in the community which our own merits scarcely warrant. And so with these privileges comes an obligation.

Francis Bacon, about the year 1600 remarked, "I hold every man a debtor to his profession, from which, as men of course do seek to receive countenance and profit so ought they of duty to endeavor themselves by way of amends to be a help and ornament thereto."

More than any of us have done, we should strive to advance the standing of Medicine, both in practice and in public esteem. Our sole claim to whatever distinction we enjoy as members of the profession, rests upon the conviction, that doctors are concerned in giving unselfish care to the afflicted. Unselfishness in our professional and public conduct is the measure upon which our profession is judged by the laity. Therefore are we inspired to do a better part in making ourselves to the profession, as Bacon says, "a help and ornament thereto."

The retiring president is perhaps expected to suggest changes or improvements in the methods of conducting the affairs of the Academy. This I hesitate to do. An organization such as this functions best without too many rules or forms.

The real and main reason for our existence is that we may have a scientific body, first to furnish instruction to our members, and second to afford an opportunity for study and improvement for those who choose to prepare and present scientific material. The advantages here offered are of great importance. To those who have not taken advantage of all the privileges offered in the Academy I would urge that they watch, lest precious opportunities be allowed to slip past them.

The social side of our organization is one which is worthy of fuller development. I am sure that in the past we have neglected and missed many opportunities. Furthering of acquaintance and friendship can only result in harmony and good feeling. We should have stated occasions for social fellowship, as for instance an annual dinner which is held so successfully by many other Academies. I am told that the New York Academy at each meeting has a collation, served through the generosity of a bequest from one of its members. This is a good suggestion for any of you who would like your memory kept green in the Syracuse Academy. There has been some discussion about establishing postgraduate instruction for our members. The idea is most attractive, but there is much chance that the plan might be more ambitious than the accomplishment. The New York Academy of Medicine has a plan which seems to work well in this regard. They have what is called the "Graduate Fortnight," when for two weeks each fall instruction is given by men who spend much time and effort, deep thought, and unusual executive ability to instill the spirit of educational adventure in the members. If any plan for postgraduate instruction is considered here I would suggest that the Graduate Fortnight be looked into.

This paper is of too limited a scope to venture hardly at all into the field of medical education, yet it is a topic in which we are all greatly interested. Is the present system of medical education so planned as to utilize to the best the student's intellect

and time? There are those of us who believe it is not. We are pleased to think, however, that one of our own members, Dean Weiskotten, has been engaged during the past two years with investigation of medical colleges and medical education and we are hoping the Academy may one of these days hear from him regarding these topics.

We were interested to hear in a medical meeting recently a description of the pioneer work which our local medical college has been the first to introduce, in the matter of training students to follow up their hospital cases in the homes where, by personal contact with the patient, they learn of social conditions and individual problems. This is the first attempt known to us where a definite effort has been made to teach the art of medicine. The work meets with our approbation, for its methods and motives are worthy of success. We shall hope that it may be fully developed.

Personal contact with the patient and his family is the one method that can teach the art of medicine, and it seems sometimes that the art of medicine stands equal in importance, especially in the mind of the patient, with the science of medicine. We can look back on the good old family doctor of a generation ago with a feeling of love and sometimes almost reverence, not particularly for his knowledge, but for his real human qualities.

Dr J Tate Mason, recently deceased president of The American Medical Association, in his inaugural address said

I fear that some of us became old in the practice of medicine before we realized that the man of yesterday, with a limited amount of scientific knowledge, who had in a kindly, knowing, sympathetic way placed his hand on the little girl's brow and said, "We will not let you suffer, you will be well in a few days," did more for her endocrine glands, that store house of chemical activities in her body, to ward off and cure disease, than anything which has been discovered in recent years. So we must realize in the practice of medicine that fear, ambition, love, hatred, pleasing impressions cause a great and lasting influence on the greatest of all chemical laboratories that we carry in our bodies from birth until death.

Some years ago it was proposed in the local medical school that anatomy and physiology be taught in correlation and at the same time with clinical subjects. In France

he candidate for medicine begins to walk the wards as soon as he is enrolled. It was proposed here that the student enter almost immediately into clinical work, and that the anatomy, physiology, and pathology of each structure and organ be studied at the same time when it was the subject for clinical instruction. This was a revolutionary idea, and it is not surprising that it was not at once adopted. But when the college with far-off vision appears, it would seem that in this plan a movement may start in medical education second only to Osler's accomplishments in clinical education of students.

In the present-day practice of medicine there is no factor which has aroused my apprehension more than what may be called the "mechanization of medicine," the substitution of machine or laboratory methods at the expense of the full use of the senses and intellect.

Were you to study the works of Harvey or Sydenham, or any of the great early masters of English medicine, you would be astonished at the intellectual capacity these men showed. In fact, you would be inclined to remark that we seem to have no such great minds in our own day. Your remark would contain a certain element of truth. These men did have great minds, but their intellects were greater because they were obliged to develop their powers solely by their own senses, working alone, not aided by mechanical means. Their superior intelligence was developed by independence.

Sir James MacKenzie in his book "The Future of Medicine," has much to say on intensive cultivation of the senses and intellect, without too great reliance upon mechanized methods. He says in one place:

We should study the human individual for the signs of disease, and the problems having been perceived, then seek their solution by experimental and laboratory methods. The physician studies the individual as a whole, recognizing not only the more dominant signs of illness, but seeking for the more subtle signs which can be revealed by the trained senses of a skilled examiner, or by his intelligent questioning of the patient, based upon an understanding of the significance of the patient's sensations. The idea which is dominant today, and which has to a great extent superseded this other, depends upon a revelation of the signs of disease devised in a laboratory.

In his address before our State Society last Spring, Lord Horder spoke upon this subject. He said in part:

Today we are witnessing the apotheosis of the machine in human life and it is not surprising to find that medicine, like other spheres of action, is being mechanized. The public has come to believe that machinery is revolutionizing the healing art and is dispensing with the need for human judgment. It is true that the introduction of instruments of precision into medicine has been of great service, but the interpretation of the results obtained by them in the individual case still demands wisdom and experience on the part of the doctor. Where the machine is greater than the man the patient perishes. A large section of the public does not understand this. It has such an incorrigible love for apparatus, and what it produces, that it hailed with acclamation a box of gadgets, constructed in defiance of all scientific principles, which claimed to hand out an exact diagnosis and even the appropriate treatment, and thus made the application of so fallible a thing as the human mind unnecessary. Failing the reduction of medicine to machinery, the public seeks salvation in the specialist and expert, and the more the apparatus and the more complicated, the greater its confidence.

It was MacKenzie who called attention to the limitations in interpretation of mechanical results. He said:

An abnormal sign revealed by an instrument has often been looked upon as a sign obscurely indicating danger and calling for treatment. The classification I have given shows that all signs revealed by instrumental methods belong to the structural group, and they give no warrant for a prognosis or line of treatment, but require that other signs must be looked for which indicate the functional efficiency or inefficiency of the organ.

And this he illustrated by the heart when he said:

By the simple interrogation of patients, with a due appreciation and understanding of their sensations, a knowledge of the heart's efficiency in the vast majority of patients can be got in a few minutes, more reliable and instructive than an examination made by a series of specialists employing the most elaborate mechanical means.

But the fetish of the machine is upon us. The laity are today more impressed by the results of a laboratory test, an X-ray, or an electrocardiograph test than by the skill and honesty of the best clinician.

Yes, I may say that many of the profession themselves are more impressed with mechanical results than with results from sound reasoning. Let us hope that the doctor knows enough to know that it is not all necessary. It has been said that the public demand from the mysteries of medicine what they require in the mysteries of religion, and where there is a demand there will always be those to meet it. "Hence," says MacKenzie, "we need not be surprised if the public look with trust on the magnificent temples dedicated to research and ignore the simple method of the practitioner with whom lies the future of medicine."

However much one may respect the indispensable value of the work of the laboratory or the findings of the x-ray or intricate mechanical devices, the point is that these findings should be the aids, not the fundamentals of diagnosis.

It is said by Dean Lewis, of William Sidney Thayer, that Thayer was endowed with keen senses which he daily exercised. They became more and more acute. His clinical sense was not inborn. It was developed by long years of history-taking and clinical examinations made with meticulous care. He possessed an accumulation of correlated experiences on which he could always call. Mechanical methods were ancillary. He would arrive as nearly as possible at a conclusion by the fundamentals of clinical medicine, and ask only for those tests which he thought would contribute to accurate diagnosis. He used the laboratory with discretion.

Ethics and Conduct

There is no subject which should interest us as physicians more than that of medical ethics, yet it is inadequately and infrequently discussed by us. We accept the truth of the principles of medical ethics without taking into recognition their depth and importance. Ethics is sometimes described as the science which tells us what the other fellow ought to do. A thought of its bearing upon our own selves is however not amiss.

I wonder if you have read carefully the Code of Medical Ethics which appeared last May in the *Bulletin* of the American

Medical Association. I venture to say that few of you did so, but if you did not it is your loss. One was inspired with a deeper realization of the responsibilities and duties with regard to the patient, and to one's fellow practitioner. A practice of the principles would do much for each of us toward eliminating the unnecessary friction and unhappiness which occur at many places in our work. We find that as a matter of fact, ethics in medicine, as in life, consists primarily in the practice of kindness and common sense, doing those things in every circumstance which we would expect of someone else in our place. Ethics is simply the practice of the Golden Rule.

The most treasured book in my library is entitled "The Duties and Qualifications of a Physician," written in 1772 by John Gregory, professor of medicine in Edinburgh. One hundred and sixty-five years ago these lectures were given before students of the University of Edinburgh. We should give more time in our curriculum of today, to such a subject. As we read the words of John Gregory we are deeply impressed by the high standards of conduct which they describe. His example would be sufficient if followed by us today. All the virtues of our own day are not of our making; most of them have descended to us from generations of men gone by.

As this book is not available elsewhere and you will therefore have no other chance to hear his words, I quote freely, being obliged, however, to limit myself to only a little of what he says. He writes:

Perhaps no profession requires so comprehensive a mind as medicine. In the other learned professions there is a certain established standard, certain fixed laws and statutes, to which every question must constantly refer and by which it must be determined. The case is very different in medicine. There we have no established authority to which we can refer in doubtful cases. Every physician must rest on his judgment, which appeals for its rectitude to nature and experience alone. To conquer his difficulties a physician requires, besides the qualifications of a proper education, the concurrence of a penetrating genius, and a clear, solid judgment, and in many cases a quickness of apprehension, instantaneously to perceive where the greatest probability of success lies, and to act accordingly.

Yet talents of another kind are also requisite. A physician has not only for an object the improvement of his own mind, but he must study the temper, and struggle with the prejudices of his patient, of the relations, and of the world in general, nay, he must guard himself against the ill offices of those who have sinister views in depreciating him. Hence appears the necessity of a physician's having a large share of good sense and knowledge of the world, as well as medical genius and learning.

Such are the genius and talents required in a physician, but a certain command of the temper and passions must be added in order to give them their full advantage. Sudden emergencies occur in practice, and diseases often take unexpected turns, which are apt to fluster the spirits of a man of lively parts and a warm temper.

Accidents of this kind may affect his judgment in such a manner as to unfit him for discerning what is proper to be done, or if he does perceive, it may nevertheless render him irresolute. Yet such occasions call for the quickest discernment, and the steadiest, most resolute conduct, and the more so as the sick so readily take alarm when they discover any diffidence in their physician. The weaknesses, too, and bad behaviour of patients, and a number of little difficulties and contradictions which every physician must encounter in his practice are apt to ruffle his temper and consequently to cloud his judgment, and to make him forget propriety and decency of behaviour. Hence appears the advantage of a physician's possessing presence of mind, composure, steadiness and an appearance of resolution, even in cases where, in his own judgment, he is fully sensible of the difficulty.

I come now to mention the moral qualities particularly required in the character of a physician. The chief of these is humanity, that sensibility of heart which makes us feel the distresses of our fellow creatures, and which of consequence incites us in the most powerful manner to relieve them. Sympathy produces an anxious attention to a thousand little circumstances that may tend to relieve the patient, an attention which money can never purchase hence the inexpressible comfort of having a friend for a physician. Sympathy naturally engages the affection and confidence of a patient, which in many cases is of the utmost consequence to his recovery. If a physician possesses gentleness of manners and a compassionate heart the patient feels his approach like a guardian angel ministering to his relief, while every visit of a physician who is unfeeling and rough in his manners makes his heart sink within him, as in the presence of one who comes to pronounce his doom.

The insinuation that a compassionate and feeling heart is commonly accompanied with a weak understanding and a feeble mind is malignant and false. Experience demonstrates that a gentle and humane temper, so far from being inconsistent with vigor of mind, is its usual attendant, and that rough and blustering manners generally accompany a weak understanding and a mean soul, and are indeed frequently affected by men void of magnanimity and personal courage to conceal their natural defects.

We sometimes see a remarkable difference between the behaviour of a physician at his first setting out, and afterwards when he is fully established in reputation and practice. In the beginning he is affable, polite, humane, and assiduously attentive to his patients, but afterwards, when he has reaped the fruits of such a behaviour and finds himself independent he assumes a very different tone, he becomes haughty, rapacious, careless, and often somewhat brutal in his manners. Conscious of the ascendancy he has acquired, he acts the despotic part, and takes a most ungenerous advantage of the confidence which people have in his abilities.

A physician by the nature of his profession has many opportunities of knowing the private characters and concerns of the families in which he is employed. Besides what he may learn from his own observation he is often admitted to the confidence of those who perhaps think they owe their life to his care. He sees people in the most disadvantageous circumstances, very different from those in which the world views them—oppressed with pain, sickness and low spirits. In these humiliating situations, instead of wonted cheerfulness, evenness of temper and vigor of mind he meets with peevishness, impatience and timidity. Hence it appears how much the characters of individuals and the credit of families may sometimes depend on the discretion, secrecy and honor of a physician.

Temperance and sobriety are virtues particularly required in a physician. In the course of an extensive practice difficult cases frequently occur which demand the most vigorous exertion of memory and judgment. I have heard it said of some eminent physicians that they prescribed as justly when intoxicated as when sober. If there was any truth in this assertion, it contained a severe reflection against their abilities in their profession. Intoxication implies a defect in memory and judgment, it implies confusion of ideas, perplexity and unsteadiness, and must therefore unfit a man for every business that requires the lively and vigorous use of his understanding.

I may reckon among the moral duties incumbent on a physician that candor which makes him open to conviction and ready to

acknowledge and rectify his mistakes. An obstinate adherence to an unsuccessful method of treating a disease must be owing to a high degree of self-conceit and a belief in the infallibility of a system. This error is more difficult to cure as it generally proceeds from a defect in the heart. Such physicians see that they are wrong, but are too proud to acknowledge their error, especially if it is pointed out to them by one of the profession. To this species of pride, a pride incompatible with true dignity and elevation of mind, have the lives of thousands been sacrificed.

John Gregory goes on further to describe the conduct of physicians with relation to their patients, the other members of the profession, and the public, but there is no time to quote more from words far more worthy than my own. I would only add my appeal that such a subject as Medical Ethics is far too important to be neglected in the medical curriculum, and should be a part of every young physician's training before starting practice.

Education After Graduation

We are apt to think of medical education as ending with graduation and entrance into practice, yet we know how far this is from the fact. It is indeed a poor physician who is not educated each day so long as he remains at work. And upon the degree and intensity of this day-by-day education depends to a large extent his value to the profession.

We are disposed to envy the recent graduate in medicine, whose mind is filled with all there is in medicine. As we meet him in the hospital and clinic we find a veritable encyclopedia of facts. Yet, when he enters practice, and the years go by, we find this fund of facts slipping away and he is no longer the font of universal knowledge. He will forget much of the mere facts that he has learned, but he has made the foundation upon which even larger things may be built.

"No great thing is created suddenly, any more than a bunch of grapes or a fig," says Epictetus. "If you tell me that you desire a fig, I answer you that there must be time. Let it first blossom, then bear fruit, then ripen." It is in the fruition and ripening time that the real doctor is made. The years, when properly spent, continue to

build knowledge on knowledge, and make the man a scholar.

Cultural Education

A physician cannot stand on a high professional plane unless he is to some degree a scholar. And, contrary to generally accepted belief, scholarship is rarely born in a man—it is the result of years of faithful, constructive effort. Even so great a scholar as William Osler was not outstanding in his early school years. His school marks were mediocre. Like many another great man, his pre-eminence was due to constant study and effort, which made ordinary talents grow into the greatest.

As physicians who are true to the spirit of our work we should learn to love and to use books, for, until we learn to move easily among books, we shall never learn to move easily among ideas. And books, for a physician, mean not only medical books, but include all branches of literature with which a man of culture should be acquainted. Without a knowledge of the great literature of the world our horizon is limited. Instead of standing on the mountain peak and surveying the wide world, our vision without literature is narrowed to scenes of the hospital and the sick-room. With literature we are like the dwarf of whom Coleridge speaks. "A dwarf sees farther than a giant when he has the giant's shoulders to mount on." Ramsey MacDonald says, "The educated man is a man with certain subtle spiritual qualities which make him calm in adversity, happy when alone, just in his dealing, rational and sane in the fullest meaning of that word in all the affairs of life."

I would like to relate my own experiences in being introduced to the world's great literature, as illustrating a happy, and almost by chance, surmounting of difficulties. In youth I attended a poor preparatory school, as most of the village high schools were at that time. Not one teacher was ever inspired with the spirit of his or her work. Not one ever imparted a hint as to the purpose and value of study. Geometry, for instance, could have been taught as a fascinating subject, not as a "dry bones" matter of

memory, for it could have been shown that it is a science which teaches us to reason how certain facts are taken and from these deductions made which arrive at an important conclusion, thus affording a training for the use of reason and deduction in everyday life. Latin and Greek were taught as mere memory tests and translations of words. No teacher ever spoke of the wondrous beauties of the Aeneid and the Odyssey, which make them shining lights in the history of literature and mankind, examples of literature for all time. English literature was read as a task to gain credits. Who ever thought he was reading Shakespeare and Scott and Johnson for pleasure? They were beyond our immature minds anyway, and there were few or none of the pupils who did not look upon such reading with aversion.

My work in college was, I may say, unfortunate in being entirely along the lines of science and its allied branches, so no love of reading came with these years.

It was through Sir William Osler, that my first introduction to real reading came. Early in my professional career I bought Osler's "Aequinimitas," a book of his selected essays. On the very last page was a little essay entitled, "Bed-side Library for Medical Students," and to this one little page I owe a mighty debt of gratitude.

Osler wrote, "A liberal education may be had at a very slight cost of time and money. Well-filled though the day may be with appointed tasks, to make the best possible use of one of your ten talents, rest not satisfied with this professional training, but try to get the education, if not of a scholar, at least of a gentleman." He recommended reading a half hour in bed as a surprising way to accomplish much in the course of a year. He suggested a list of ten books with which to start a habit of reading. I bought them all and found a most excellent introduction to literature. They are

1 Old and New Testament

2 Shakespeare

3 Montaigne—and as Stuart Sherman says, "The first week with Montaigne is only comparable with one of the few great weeks of life."

4 Plutarch's Lives

5 Marcus Aurelius

6 Lpictetus

7 Religio Medici of Sir Thomas Browne

8 Don Quixote

9 Emerson

10 The Breakfast Table Series of Oliver Wendell Holmes

But time passes and I must not linger too long over this subject, engrossing as it is. I would only speak a word of counsel, particularly to the younger members. Before it is too late, begin to learn great literature and make the whole of the world your own.

And now a final and earnest thought. One of the most treasured possessions of a body of physicians is the harmony and freedom from partisanship which exist among its members. Such an enviable position came to us as an heritage from some of the great men who were among us and are now gone. No finer legacy could they have conferred upon us. Let us cherish this ideal—that no clique nor faction shall ever dominate our medical societies. Let them be kept free from manipulation and controversy.

If ever a man should arise, not yet seen upon the horizon, who would seek to disrupt the harmony of our organizations may the whole membership arise to overcome him. If there is one word I might say, which, I might hope may be remembered it be this one—Harmony.

I came to the end of this year's work with the particularly happy feeling that, during the year not one enmity had arisen and that I had a feeling of friendship for each member of this Academy. Imagine my feelings, then, when I found the following poem.

"You have no enemies, you say?

Alas! my friend the boast is poor—

He who has mingled in the fray

Of duty that the brave endure

Must have made foes! If you have none

Small is the work that you have done,

You've hit no traitor on the hip,

You've dashed no cup from perjured lip,

You've never turned the wrong to right—

You've been a coward in the fight!"

"Alas! Poor Yorick."

NEW YORK ACADEMY OF MEDICINE

IDEALS IN MEDICINE

JAMES ALEXANDER MILLER, M.D., *New York City*

Somewhat more than twenty-five years ago a frail figure possessed of a dynamic personality held a crowded medical audience spellbound by the power of his message. To those of us of the then younger generation who were present upon the occasion when Doctor Edward Livingston Trudeau delivered his presidential address to the Congress of Physicians in Washington, upon the subject "The Value of Optimism in Medicine," an inspirational uplift was given which the passage of time cannot dim and will never efface. In the search for an appropriate topic upon which to address the Academy of Medicine upon this occasion, the memory of that similar, though more notable occasion has kept recurring to my mind. In my thinking there was a wistful desire that, privileged as I had been to be intimately associated with Doctor Trudeau over a long period of years, I might possibly be enabled to pass on to another medical generation something of the idealism of the man, of whom perhaps we most often think as a pioneer scientist and physician but whose outstanding gifts were those of the spirit and of personality through which he so powerfully impressed that audience of years ago.

I approach the task which I have set myself with the greatest diffidence, fully aware of my own inadequacy. I am, however, encouraged to persist because of a deep-seated conviction that in this present troubled world we need to hold fast to our ideals as perhaps never before, and also because I cherish the hope that in spite of the imperfections in the presentation, nevertheless something of the spirit of that great man whom I have recalled to your remembrance may come through to you.

The Scientific Ideal

In the consideration of ideals in medi-

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cine with little doubt the first impulse of the modern medical mind would be to visualize the possibilities of medicine as an exact science. The progress which has been made in this direction is already so notable that the look ahead opens up vistas so promising that they are truly exciting. When we stop to realize that practically all that we today count as scientific medicine has developed within the span of the generation still alive, the possibilities of its future development cannot fail to grip the imagination.

Our entire knowledge of the bacterial origin of many infectious diseases has come since 1870, and the practical application of this knowledge came only after the turn of the present century. These few short years have sufficed to give us virtual control of diphtheria, of typhoid fever, of yellow fever, of malaria, of hookworm disease, of the acute intestinal diseases of children, and the dysentery of adults, to mention only some of the outstanding examples. Through the removal of the dangers of infection this same knowledge has made possible the extraordinary development of modern surgery. More recently has come also the better understanding of vitamin deficiency diseases, of blood disorders, and of the disturbances of the organs of internal secretion. Technical scientific advances have also made possible many instruments of precision useful in the diagnosis and treatment of disease, such as the Roentgen ray, the electrocardiogram, and numerous applications of chemistry to clinical medicine, both in diagnosis and in treatment. The whole field of the pathology of function, supplementing our previous too exclusive devotion to the study of the pathology of structure, has been opened up to the great advantage of many branches of medicine and of surgery. We stand at the brink of more exact knowledge of metabolic disease, of respiratory infections, of numerous virus

Address of the Incoming President Delivered at the Annual Meeting of the New York Academy of Medicine, January 7, 1937

diseases and even have hopes that before long, dreaded cancer itself may yield up its secrets to the methods of modern research

Notable names flash across our memory associated with these extraordinary achievements: Pasteur, Koch, Behring, Roentgen, Welch, Walter Reed, Trudeau, Banting, Minot, to mention only a very few. It is no wonder that the imagination of young students and practitioners of medicine is fired by a zeal to emulate their great achievements, to share in extending still further the boundaries of our knowledge and to help to conquer some of the innumerable problems which still lie before us. Such an ideal is indeed a noble one, a challenge to the very best, but to the medical profession of today as a whole it is not enough, far from it.

The Clinical Ideal

This we may characterize as the Art, as distinct from the Science, of medicine. Already we hear murmurings that we are in danger of losing this Art, that the startling progress of scientific medicine has in itself contributed to this direction. That we are thinking too much of our patient as an organism rather than as an individual, as a personality. That this has led to too great reliance upon the laboratory and upon scientific instruments of precision, and away from the personal equation of the individual as a whole, his psychic and emotional as well as his physical and physiological reactions to his environment as well as to his disease. That specialized practice restricted to one organ or to one group of organs, and even surgery itself, tend in the same direction.

The often expressed regret of the passage of the general practitioner is not confined to the laity. It is quite as common within the medical profession. In fact, the tendency to get back to the better appreciation of individual and personal relationships in medicine is quietly gathering strength in a manner which may have a deep influence upon the future practice of medicine. In some countries, notably Italy, France, Germany, and England, this movement has been dignified with a name. It is being discussed under the designation of "Neo-Hippocratism." Appreciation of the significance of this term requires a short excursion into medical history.

Hippocrates, known as the father of medicine, lived in the fifth century B C., the age of Pericles and the acme of Greek culture. With little or no scientific knowledge he established a system for the diagnosis and treatment of disease, based upon careful and accurate clinical observation. He insisted upon the fundamental importance of the knowledge of the constitution and of the nature of each patient, as he expressed it: "The physician must know a man's nature and a man's behavior through life in relation to all his actions." Thus, he established the supreme importance of personality and of personal relations.

From the point of view of the physician, Castiglioni has recently summarized the Hippocratic doctrine in masterly fashion as follows:

The physician's task of speculation and of observation, an artist's task, is insisted upon in all the works of the Master. A very good physician is a very good philosopher, that is to say, a man who can perfectly judge and reach right conclusions. Diagnosis and prognosis may be taught by the Master, that is stated in the Hippocratic texts, but the patient's treatment, the behavior at the patient's bedside, the therapeutic intervention, cannot be taught. In determining them the artist's qualities are revealed. Hippocratic medicine is individualistic because it admits the importance of the physician's personality. Moreover, it establishes the basis of professional practice: the physician's faith in his art, together with the right appreciation of its limitations.

In 150 A D., six centuries after Hippocrates, came Galen, the next outstanding leader of medical thought. Although Greek in origin, his ideas developed in the environment of Rome. Galen's doctrine, though based upon that of Hippocrates, developed the analytical method, the study of specific diseases of specific organs, and the application of specific remedies. One finds little mention of constitution or of personality in the teachings of Galen, and dogmatism replaces philosophy. Galen completely dominated medical thinking, such as it was for more than sixteen hundred years. A gradual release from this subjugation appeared in the 17th century with the beginnings of independent medical observations and ideas, and was contemporaneous with similar movements in other fields, the Revival of Learning, the Reformation in Religion, and the Renaissance in Art.

By painfully slow steps progress was made during the intervening centuries until our own, with the influence of Galen unconsciously persisting, until, in the latter part of the 19th century, the rapid development of scientific knowledge in itself produced a definite reaction back toward the Galenic ideas of specific diseases for specific organs. This was definitely expressed by Virchow, in 1902, when he said, with the weight of his great scientific reputation behind him, "There are no more general diseases but only diseases of the organs and diseases of the cells."

Neo-Hippokratism is the counter-reaction against this tendency. It voices a call to go back and sit at the feet of the ancient master. To think of man as a whole, of his constitution and his nature. To consider disease as a dysharmony of normal relations, as disturbance of function as well as of change in structure, to consider the emotional and the psychic as well as the physical and to bring back personality as expressed both in patient and in physician, as a determining factor in successful treatment. This is a challenge to modern clinical medicine. Far from excluding the advances of science from its purpose, it eagerly grasps each new discovery as an increased opportunity for usefulness, but translates science into terms of a personal equation applicable to individuals by individuals. The great masters in clinical medicine knew and employed these methods, Sydenham, Heberden, Laennec, Watson, Abernethy, Osler, Trudeau, Grenfell, Delafield, and Janeway. The memory of great names in medicine such as these reminds those of us who were not born to be scientists, that we may still hold up our heads as worthy of the name of physician if we follow the same ideals as they. But let us do so in humility as well as in pride, keeping in mind that most famous of the aphorisms of Hippocrates.

"Life is short, the Art long, opportunity fleeting, experience treacherous, and judgment difficult."

The Ethical Ideal

The father of medicine did more than give us the first firm basis for clinical medicine, he gave us the first principles of ethics for our profession, crystallized in the

Hippocratic oath to which we have all subscribed. The term medical ethics does not represent simply a code of honor between physicians, a sort of gentlemen's agreement, and it certainly is not, as some have assumed, a defensive coloring designed mainly for our own self-protection. It means rather an oath of allegiance to ideals of professional contacts in our relations to each other, to our patients, and to the public. It is the concrete expression of the responsibilities of our calling, sacred in the sense that we may hold in our hands the power over life and death. It is the dedication of our knowledge, our powers and our gifts to the service of others rather than to the hope of reward for ourselves.

In these troubled days when the forces of materialism have grown great about us, the road is not easy. Temptations to self-interest, to carelessness, to sharp practices or even to those that are frankly unethical, often beset us. These can only be overcome by a devoted adherence to those ideals which, though Hippocratic in origin, are really spiritual in their essence. This requires persistent effort to develop, through all of our professional contacts, that sympathetic understanding of ourselves, our fellows and our patients which makes for integrity of character and for the true expression of that rare gift of God, personality. This is truly the power of the Spirit, against which mere material forces will break in vain.

Community Responsibility

As the pursuit of our scientific and clinical ideals has tended to make our profession individualistic in its approach to medical problems, it has also tended to make us more or less forgetful of other important responsibilities. During recent years the practical application of our growing medical knowledge has become increasingly evident to the world at large, and is now recognized as possessing great significance for the community as a whole. This has resulted in a demand for an extension of our activities far beyond the intimate personal relationships between individual physician and patient, to those broader fields which we designate as social and preventive medicine.

In social service we are gradually com-

ing to appreciate that a study of the living working and economic conditions with which our patients are surrounded, often illumines difficult clinical pictures and may point the way toward proper and adequate treatment. Also we are beginning to realize that by increasing our knowledge of community activities in social, economic and industrial fields, we immeasurably broaden our horizon of interest and of culture and thus become not only better physicians but better citizens. This leads us directly into the field of preventive medicine, for by the very fact that we are uncovering the causes of illness we become responsible for the attempt to prevent its occurrence in others. It, consequently, becomes an important part of our job not only to treat people when they are sick but also to help keep them well, and thus we reach out from the bedside, to the family, to the various social groups and to the community. This part of our task brings us closely in contact with public health agencies with which we must cooperate closely in their effort to improve the health of the community. What a wonderful power we, as a body, could exert in this field if each physician constituted himself a health officer for the families under his care, detecting and correcting physical defects, following up sources of infection in syphilis, in diphtheria and other communicable diseases, following up the contacts in cases of tuberculosis, and in general in every way cooperating closely with our public health authorities in the effort to prevent disease! The record of accomplishment in this field is imposing, but as long as thousands still die each year from diseases which we know to be preventable, we must continue to increase our efforts. Government, health authorities, and other organized health agencies can do much, but individual physicians, if their efforts are properly directed, can do even more. The prevention of disease, therefore, becomes a challenge of the future to our profession, an ideal to which we must aspire.

The Academy of Medicine

Now, the New York Academy of Medicine is organized to foster all of the professional ideals which we have been considering. Higher standards of scientific and

clinical medicine are promoted by our splendid Library which is available to all members of the profession and to the general public. Our section and general meetings afford a forum for the free discussion of all phases of medicine and our Committee on Medical Education is assiduously developing the wider use of the opportunities for graduate instruction, and specifically through the Graduate Fortnight each year a symposium on special topics is arranged which has proven a most useful and popular institution. Also, many of the important papers presented before the Academy are published in our monthly bulletin. So that, taken all together the Academy represents one of the most important institutions for postgraduate education in this city and indeed in the whole country.

The maintenance of high standards of ethics is the constant concern of the Council, of the Committee on Admission and of the Committee on Professional Standards. Also, through the Academy the relations of the medical profession with the general community have been developed to a remarkable degree during the past twenty-five years. The Committee on Public Health Relations has established intimate contact with all aspects of community life which touch upon health and general welfare, and it has become the close adviser of the city Departments of Health, of Hospitals, of Welfare of Education of Sanitation and of Civil Service.

Through our Medical Information Bureau we act as interpreters of current medical knowledge to many individual inquirers but especially to the press and to the public, and we have carried out many independent studies and surveys in the field of public health. The Academy publishes a monthly magazine devoted to preventive medicine for physicians, and through the course of Lectures to the laity we have done much to popularize sound medical knowledge. Through cooperation with the organized county and state societies the Academy has constantly attempted to guide the trends of medical practice within the range of economics, of social welfare and governmental relations, into sound channels which, while protecting the rights and standards of the medical profession, are primarily designed to promote the best interests of the community as a whole.

With this cursory review of the record of achievement behind us, we who are Fellows and Members of the Academy have a responsibility to maintain and to advance our medical ideals, which is even greater than that which devolves upon the profession as a whole. We of the medical profession have a noble heritage, and we of the Academy have an especially notable tradition. These constitute a challenge to the future that we should hold true to our ideals of service, with hopes of any reward as a secondary consideration. Those of us who, for a passing period, are charged with the responsibility of guiding the counsels of the Academy of Medicine pledge ourselves to give the best of our thought and energy to this end. We do so unhesitatingly because we are confident of your support.

Quite recently I had occasion to quote from the address of Doctor Trudeau to which I have already referred. I beg your

indulgence if I repeat these words here, for they express far better than any at my command the spirit of the ideas which I have attempted to convey.

At the conclusion of that address Doctor Trudeau left this message which I in turn would like to leave with you:

"Let us not", he said, "Let us not, therefore, quench the faith nor turn from the vision which, whether we own it or not, we carry, as Stevenson's lantern-bearers their lanterns, hidden from the outer world, and, thus inspired, many will reach the goal, and if for most of us our achievements inevitably must fall short of our ideals, if when age and infirmity overtake us 'we come not within sight of the castle of our dreams,' nevertheless all will be well with us, for, as Stevenson tells us rightly, 'to travel *hopefully* is better than to arrive, and the true success is in labor'."

ANOTHER FLY IN THE ALPHABET SOUP

As a result of the stringent relief definition of "needy" doctors, the venereal disease project, a favorite of Mayor LaGuardia and Governor Lehman, is finding itself slowed up in its work, it is claimed by Oscar R. Fuss, secretary of the City Projects Council.

As matters now stand, he said, the WPA project needs more doctors but is not permitted to hire them, impoverished doctors need the jobs but are barred from taking them.

The root of the trouble, he said, was the rule that doctors seeking relief jobs must meet the definition of neediness set up by the Emergency Relief Bureau and be so certified to the WPA.

And the ERB, he said, is not permitted to certify a doctor as needy if he owns doctor's equipment and has an office and the use of an automobile, no matter how near he may actually be to destitution.

Mr. Fuss's contention, expressed in letters to the Mayor and the Governor, received support today from Dr. William H. Best, deputy commissioner of the Department of Health, which is sponsoring the project.

Dr. Best said, "It is true we can use as many physicians as we can get. The program itself is enormous and the work done on it is limited only by the amount of appropriations. It could be enlarged many

times. Within the present appropriation we can use more physicians if they are made available."

The current WPA rule, Mr. Fuss said, excludes a number of physicians recently dismissed as a result of the dismantling of the Compensation Division. While they cannot meet the new need requirement, he said, their practice is often so small, partly because of their recent dependence on WPA compensation work, that they generally need WPA jobs at the fixed pay of \$23.86 a week.

Though the Governor and the Mayor have both given strong support to the anti-venereal disease campaign, ERB authorities insist that there is no legal possibility of making exceptions on this project.

"In the past," said Mr. Fuss, "the ERB did not have the same stringent rules. Physicians were allowed equipment, home and office rent and the use of an automobile. If their net income amounted to less than \$20 a week after debiting these expenses, they were eligible to need certifications."

"Here, then, is the situation."

"The WPA has the jobs. The physicians need the jobs. The jobs are socially desirable. Officials have publicly promised they would make every effort to create jobs of this type. But one-time WPA physicians cannot get the jobs."

COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

The Committee on Public Health and Medical Education has sent out the following letter, etc., to the secretaries of all the county medical societies

As you know, one of the principal activities of the State Medical Society during the past year has been its participation in the Pneumonia Control Program, carried on under the combined leadership of the New York State Department of Health and of this Committee. The Committee's work has been reported to the House of Delegates at its last meeting, and in addition, a detailed and informative report on this particular activity was published in the *NEW YORK STATE JOURNAL OF MEDICINE*, on July 15, 1936, in Volume XXXVI, No 14, page 1053

In a letter sent you over a year ago, the purposes of this campaign were stated as follows

- 1 Early medical care for pneumonia patients
- 2 Laboratory service for rapid type determination and other bacteriological studies
- 3 Increased use of concentrated anti-pneumococcic sera, when this treatment is indicated
- 4 Adequate nursing service for all patients

Following this letter, a large number of county medical societies promptly arranged for the consideration of pneumonia on the scientific programs of their meetings. The list of these societies is published in the report referred to above. In addition, the following county societies have had such meetings since this report was published: Franklin, Niagara, Wayne, Oswego, and Sullivan. The splendid cooperation which so many county medical societies have given to this program is evidence of their interest and willingness to make the Pneumonia Control Program a decided success.

As the physicians' participation in this work is an absolute essential, it is necessary that county medical societies continue to function in this matter. In counties where no pneumonia meeting has yet been held, arrangements for such a meeting should be made immediately. This is imperative, and if your county society meets only at rare intervals, a special meeting should be called

for this purpose. As you know, our Committee will be very glad to supply speakers for this meeting.

It is most important that each county medical society has a committee to direct this work. In the case of smaller societies, undoubtedly the public health committee will suffice for this purpose, but in larger counties, a sub-committee on pneumonia should be created. On these committees should be men especially interested in this subject, and willing to work. Since it is essential that this work be closely correlated with the activities of the State Department of Health, it is suggested that the District State Health Officer or County Health Commissioner, where the county is so organized, be asked to sit with them. A program for suggested activities for such committees is herewith attached.

A copy of this letter is going to the chairmen of public health committees of county medical societies. Inasmuch as we have not the names of all of these chairmen, and as undoubtedly changes have been made in the personnel of these chairmen in some societies, I am asking the secretaries of all county medical societies to make sure that the public health committees receive this information.

The various other organizations which are co-sponsors with the State Medical Society in the Pneumonia Control Program are highly pleased with the efforts, so far of the medical profession, and have shown a spirit of fine cooperation in this matter. It is essential that this record be maintained. Will you kindly see that I have some information as to what your county society is doing or is planning to do in this regard?

With kind wishes, I am

Very sincerely yours
THOMAS P. FARMER, *Chairman*

P S Additional copies of the suggested program for county medical societies may be obtained on request.

A Suggested Program for Public Health Committees and Subcommittees on Pneumonia of County Medical Societies

The following suggestions are those which the Committee on Public Health and Medical Education feel are matters which should receive early attention in formulating

a pneumonia control program within county medical societies. Space permits only of a mere listing of these activities. It is realized that no definite program can be

set up which would be applicable to all county medical societies, because of varying conditions within these counties. Undoubtedly some of the topics listed herewith may be unnecessary in your county, while other problems not listed may be of much concern. Our Committee, at all times, will be of service in the way of advice or suggestions.

1 Medical meetings. The following subjects might be considered for discussion where a preliminary meeting has already been held.

- a Serum treatment (especially of the "higher" Types)
- b Oxygen treatment
- c The bacteriology of pneumonia
- d Nursing care of pneumonia
- e The epidemiology of pneumonia.

In counties where no meeting has been held, it is felt that a general symposium on pneumonia would be most desirable. The Committee has obtained the services of a group of highly qualified speakers to present these subjects and would be glad to assist in any way possible in arranging the desired program.

2 The availability of "approved" laboratory service might well be considered. It is especially important to have the service arranged on such a basis that it is immediately available for everyone needing it. In considering the requirements of an approved laboratory and the question of establishing a county service with State-aid, if it seems desirable, the advice of the District State Health Officer should prove of great value.

3 The same sort of consideration might be given the available visiting and public health nursing service.

4 Hospital staffs should be encouraged to take up the subject of pneumonia at staff meetings for the purpose of giving particular emphasis to the necessity of typing and to the details in technic of serum administration. This is particularly important since a survey last year indicated that only about 50 per cent of pneumonia patients hospitalized had proper bacteriological studies made.

5 The subject of reports upon cases where serum has been used merits discussion. Many physicians are failing to supply these reports which are requested by the State Department of Health where serum furnished gratuitously by it, has been used.

It is in a large measure through the efforts of our Committee that the new concentrated serum is distributed by the State Department of Health. Physicians should show their appreciation of this service by prompt return of these reports. Moreover, such reporting is essential to the continuance of this serum distribution in the future and to the maintenance of high standards for it.

6 The discussion of interesting cases in which serum has been used would form excellent topics for programs of county medical societies.

7 Education of the public. It is earnestly hoped that the county medical societies will endeavor to arrange talks to lay groups. The Women's Auxiliary to the County Medical Society, where established, undoubtedly would be a source of great aid in this matter. Other lay organizations which have already indicated interest and willingness to cooperate are Federation of Home Bureaus, Federation of Women's Clubs, the State Tuberculosis and Public Health Association, and 4-H Clubs. It is suggested that any or all of these agencies be encouraged to institute an educational program on the subject of pneumonia for their members. Such education should be focused upon the necessity for prompt medical care of severe respiratory infections and the recognition of the emergency nature of pneumonia. The Bureau of Pneumonia Control of the State Department of Health has literature of value to such groups. Our Committee will help county medical societies in providing suggestions for talks before these groups.

8 Our Committee or the Bureau of Pneumonia Control of the State Department of Health whose Director works in the closest possible contact with us and has the full authorization of our Committee, will be glad to give you the benefit of our experience with this type of program in other counties, of a considerable amount of relevant literature, in the selection of speakers and arrangement of programs, in the display of exhibit material (eventually to include both popular and technical motion pictures on this subject), by providing outline material for lay talks and in any other way possible.

* * *

Your full cooperation with our Committee is requested to the extent that your program may conform in certain essentials to the recommendations of the State Society.

One of the country's ace radio vocalists is on the air for a famous cold cure. A

few nights ago he had to cancel his appearance. It seems he had a cold.

COMMITTEE ON LEGISLATION

Bulletin No 7

March 3, 1937

The following bills have been introduced during the past week

Senate Int 1001—Feinberg, Assembly Int 1450—Leahy, amends the Public Welfare Law by requiring the State to reimburse public welfare district to extent of one-half of amount expended for medical attention and hospital care Referred to the Relief and Welfare Committees

Senate Int 1024—Livingston, amends the Public Welfare Law by making town responsible for home relief and medical care of defective and physically handicapped and illegitimate children, and authorizing care of illegitimate child and mother at free boarding home or institution Referred to the Relief and Welfare Committee.

Senate Int 1041—Rogers, Assembly Int 1389—Roach, amends the Agriculture and Markets Law by providing that food products shall not be colored, powdered, coated or stained in manner to conceal inferiority, and requiring the name and address of manufacturer or distributor be printed on label Referred to the Agriculture Committees

Senate Int. 1089—Kleinfeld, Assembly Int 1487—Bush, amends the Mental Hygiene Law by requiring certification of qualified examiners and psychologists by commissioner after verification and submission of evidence before judge of court of record, and authorizing commissioner to revoke after hearing Referred to the Judiciary Committee in the Senate and the Health Committee in the Assembly

Comment This amendment is proposed by the Department of Mental Hygiene to give the Commissioner the power to rescind a certificate that may be given a psychologist who later is found not to possess the specified qualifications

Assembly Int 1386—Miss Byrne, amends the Public Health Law by requiring birth certificate to contain photograph of fingerprints of mother and footprints of child Referred to the Health Committee

Assembly Int. 1399—Fitzgerald, amends the Public Health Law by creating in the Health Department a consumers' division for registration, advertising control, analysis, scientific research, education and publicity of manufacture and sale of foods and proprietary products, and for regulating traffic therein, and appropriating \$250,000 Referred to the Ways and Means Committee

Comment This bill is almost identical with the Esquirol-Holley bill The particular differences are that it carries an appropriation and provides that the reports of the director shall be submitted to the Governor through the Commissioner of Health

If you would like a copy of any of these bills, we shall be glad to send them to you

* * *

The description of Assembly bill Int 1325, by Mr Milmoe, in Bulletin #6 was in error Before seeing the printed bill we understood the amendment was to provide that one physician might be both health officer and medical inspector, but the amendment really provides that a physician may be school trustee and medical inspector if no other physician is available in the district

Hearings on Bills

Yesterday the Senate Committee on Education held a hearing on the Physiotherapy Technician and Optician Bills One group of physiotherapy technicians opposed the bill, in spite of the fact that they had been consulted when the bill was drafted and had given their approval to it Nevertheless, yesterday, through their counsel, they raised objections, not to the discontinuance of the provision for future licensure into their group, but to the provision which provides the same penalties for them as are now operative over practicing physicians Their counsel said there are a few more than three hundred physiotherapy technicians operating in the State, and he had present at the time ten per cent of that number to support his protest Representatives of the Department of Education and the Medical Society appeared in support of the bill and pointed out to the committee that its enactment would be in the interest of the public good as well as in the interest of the physiotherapy technicians

The Optician Bill was opposed by the optometrists and representatives of the Retail Merchants' Association

* * *

March 9—S Int 316—Feld, clinical laboratory, A Int 312—McCaffrey, technicians, license, A Int 804—Austin, clinical technicians, license, S Int 358—Esquirol, A Int. 942—G W Stewart, nurse practice, S Int 600—Feld, nurse practice, A Int. 370—McCaffrey, nurse practice.

Joint hearings before Senate and Assembly Education Committees—2 P. M.

Action on Bills

S. Int. 210—Hanley—Livingston Co bars T. B. patients—3rd rdg. in As.

There follows a resolution introduced by Assemblyman Zimmerman who comes from the 14th District of Kings County, asking for an investigation of the hospitals of New York City. Mr. Zimmerman says that hospital facilities in his District are very unsatisfactory and he had many complaints during the campaign period of laxity and irregularity. He says he does not mean this resolution to be taken in an antagonistic spirit, but in a constructive spirit. He confesses that he is a layman and his approach to the question is purely that of attempting to represent the people of his District. The resolution is so searching and so far-reaching that we think the complete text should be in the hands of every one of our bulletin readers.

Whereas, the City of New York maintains a vast, extensive organization in the ownership, operation and maintenance of a large chain of hospitals and institutions for the sick, and maintained as they are at an almost stupendous, staggering expense to tax payers, and

Whereas, These hospitals have for their purpose and function to alleviate all possible human suffering—safeguard the health and lives of millions of men, women and children, and make available the needed ways and means for a mass population of some seven (7) millions of people, residents of the City of New York to improve, protect or rebuild their physical and mental bodies—their social status, enhance and make more secure to themselves added years of earning capacity and expectancy of life, and

Whereas, This hospital organization which stands out to the taxpayers as the most momentous piece of publicly operated machinery second to no other branch of the City Government in importance and worth to the people—a business which has so greatly expanded in size and significance as to compare with any of our giant American industries or enterprises, and

Whereas, Recent observations indicate the scope of hospitals and medicine as a powerful, fast moving public benefactor and enterprise—a field employing in New York State

130,000 physicians
50,000 dentists
150,000 nurses
100,000 attendants, and

Whereas, the great chain of New York City hospitals, because of their magnitude and service to the extraordinary multitude of people situated in New York City and exhibiting its importance in rank in the vital statistics which show that some 2,000,000 people are regularly employed to take care of those who are sick—that more than 2% of the people are sick all of the time—that 80% to 90% are sick more or less and about 20% of the people are possible candidates for hospital beds, and that over 11% of the people are infected with syphilis—many thousands of these cases never reaching the hospitals, but are treated in clinics and in other places, and later in life reach our State hospitals for the insane in alarming numbers. 95% of all men indulging in promiscuous intercourse in large cities contract gonorrhea at some time in their lives. 60% to 80% of all operations performed on the childbearing tract of women are due to being infected one time or another with gonorrhea. 25% of all the blindness in large cities is due to the ravages of gonorrhea. More than 52% of the patients in our hospitals are afflicted with diseases of the brain and nervous system. The total number of patients treated in hospitals of the country in 1933 was some 1,961,836, equal to 10% of our population, and

Whereas, the expense in the handling of these so afflicted is equal to an annual expenditure of some two billion dollars, and

Whereas, These statistics point and draw our attention to the proportionate masses of people treated in our New York City Hospitals, and to take care of this great number, our hospital system and facilities must be reorganized and operated on a big scale and in a highly efficient manner to take care of the greatest number of people and with the greatest dispatch. What effective hospital and clinic treatment means to cope with the inroads of disease and protect as well, innocent men, women and children from these highly contagious diseases in the large City of New York, should be represented in the superior safeguards these hospitals set up to afford every possible protection to human mankind, and

Whereas, When it is considered that the average expense to most states and cities for the care and treatment of its indigent—blind—sick and insane is equal to approximately from 20% to 22% of their entire yearly earnings, it is not difficult to understand from a human and economic point of view why the greater the human derelicts falling back on the City as incurable and permanently disabled—the greater are the years of hospitalization—with millions of dollars expense to the taxpayer, and

Whereas, We must consider the most serious humanitarian interest, as well as a great finan-

cial issue in which the City of New York must of necessity at all times participate—along with the taxpayer, so long as the vicious circle exists in hospitals and continues to exist as it does in our present day system of hospital operation where faulty and bad supervision and improper hospitalization of patients contributes to added chronic invalids, and

Whereas, Apparently our high City and State officials have never appeared thoroughly awakened to the far reaching factors of consideration that are locked up in the colossal expenditures touching on the maintenance and operation of our hospital system and what faulty, obsolete methods can be responsible for in terms of human disaster and almost insurmountable tax burdens. It seems almost unbelievable that a subject so vital would be allowed to stand without frequent investigation and survey, and

Whereas, It is of the opinion of the authorities that after an investigation is made some plan might be formulated where publications of textbooks on management and operation of hospitals written for the benefit of those who are interested in becoming hospital executives, and

Whereas, It has come to the public notice and with shocking indignation that the present methods of operating the hospitals of New York City are in constant violation of all sound principles of modern operation and supervision as has been proven by the hundreds of complaints to representatives of the people, setting up as these complaints do, improper management practiced in nearly every branch of this service, the result of inefficient and ineffective treatment of patients lack of close-up individual supervision and proper co-ordination of department heads, wasteful and defective administration, resulting in serious and permanent harm to patients with consequent loss of life. The entire structure is top heavy with too many poorly trained useless executives, whose function serves no good purpose, either for the immediate care or supervision of the great mass population of these hospitals, or for the good of the institutions in general, and which executives are believed to be a source of combat to each other and a disturbing influence in the finer and more delicate adjustment of adequately supervising the dire need and scientific treatment of the patients in general, and

Whereas, It is believed that unless these hospitals are immediately and systematically subjected to the closest scrutiny and finest kind of judgment, and are manned by known, practical, expertly trained hospital directors, numbers of human beings will go on being neglected and sacrificed physically, mentally or morally, and these hospitals will fail most

miserably to function in the best interests of humanity

Resolved (if the Senate concur), That a joint legislative committee be and is hereby created consisting of three members of the Senate, appointed by the temporary president of the senate, and five members of the Assembly, to be appointed by the Speaker of the assembly, that such committee shall as speedily as possible following its organization meeting proceed to examine, investigate and survey the entire system, structure and administration of the city and privately owned hospitals located in the City of New York, and it is further

Resolved (if the Senate concur), That such committee be and is hereby authorized to choose from its members a chairman and a vice-chairman, employ counsel and such other employees and assistants as may be necessary for the proper performance of the work of the committee and fix the compensation of all employees out of the amount provided herein therefor, and that such committee shall generally have all the powers of a legislative committee as provided by law, and it is further

Resolved (if the Senate concur), That such committee shall report its findings to the legislature on or before February first, nineteen hundred thirty-eight, and shall submit along with such report such drafts of legislation as may be necessary effectively to carry out its recommendations, and it is further

Resolved (if the Senate concur), That the sum of Fifty Thousand Dollars (\$50,000 00), or so much thereof as may be necessary, be and it is hereby appropriated from the contingent fund of the legislature to defray the expenses actually and necessarily incurred by the committee in the performance of its duties hereunder. Such moneys shall be paid on the audit and warrant of the comptroller upon vouchers or certificates therefor approved by the chairman of the committee

Ways and Means Committee

Special Bulletin

March 12, 1937

RE OSTEOPATHY BILL

Assembly Bill Int 1605 Print 1769 by Mr Milmoë, amending the Education Law, requiring applicants for license to practice osteopathy to pass an examination of state medical examiners prescribed for all physicians, license not to entitle holder to perform any surgical operation for opening a natural body cavity, removal of cancer or other tumor, and certain other major operations. Referred to the Education Committee.

Joint hearings before Senate and Assembly Education Committees—2 P M

Action on Bills

S Int. 210—Hanley—Livingston Co bars TB patients—3rd rdg in As

There follows a resolution introduced by Assemblyman Zimmerman who comes from the 14th District of Kings County, asking for an investigation of the hospitals of New York City. Mr Zimmerman says that hospital facilities in his District are very unsatisfactory and he had many complaints during the campaign period of laxity and irregularity. He says he does not mean this resolution to be taken in an antagonistic spirit, but in a constructive spirit. He confesses that he is a layman and his approach to the question is purely that of attempting to represent the people of his District. The resolution is so searching and so far-reaching that we think the complete text should be in the hands of every one of our bulletin readers.

Whereas, the City of New York maintains a vast, extensive organization in the ownership, operation and maintenance of a large chain of hospitals and institutions for the sick, and maintained as they are at an almost stupendous, staggering expense to tax payers, and

Whereas, These hospitals have for their purpose and function to alleviate all possible human suffering—safeguard the health and lives of millions of men, women and children, and make available the needed ways and means for a mass population of some seven (7) millions of people, residents of the City of New York to improve, protect or rebuild their physical and mental bodies—their social status, enhance and make more secure to themselves added years of earning capacity and expectancy of life, and

Whereas, This hospital organization which stands out to the taxpayers as the most momentous piece of publicly operated machinery second to no other branch of the City Government in importance and worth to the people—a business which has so greatly expanded in size and significance as to compare with any of our giant American industries or enterprises, and

Whereas, Recent observations indicate the scope of hospital and medicine as a powerful, fast moving public benefactor and enterprise—a field employing in New York State

130,000 physicians
50,000 dentists
150,000 nurses
100,000 attendants, and

Whereas, the great chain of New York City hospitals, because of their magnitude and service to the extraordinary multitude of people situated in New York City and exhibiting its importance in rank in the vital statistics which show that some 2,000,000 people are regularly employed to take care of those who are sick—that more than 2% of the people are sick all of the time—that 80% to 90% are sick more or less and about 20% of the people are possible candidates for hospital beds, and that over 11% of the people are infected with syphilis—many thousands of these cases never reaching the hospitals, but are treated in clinics and in other places, and later in life reach our State hospitals for the insane in alarming numbers 95% of all men indulging in promiscuous intercourse in large cities contract gonorrhea at some time in their lives 60% to 80% of all operations performed on the childbearing tract of women are due to being infected one time or another with gonorrhea. 25% of all the blindness in large cities is due to the ravages of gonorrhea. More than 52% of the patients in our hospitals are afflicted with diseases of the brain and nervous system. The total number of patients treated in hospitals of the country in 1933 was some 1,961,836, equal to 10% of our population, and

Whereas, the expense in the handling of these so afflicted is equal to an annual expenditure of some two billion dollars, and

Whereas, These statistics point and draw our attention to the proportionate masses of people treated in our New York City Hospitals, and to take care of this great number, our hospital system and facilities must be reorganized and operated on a big scale and in a highly efficient manner to take care of the greatest number of people and with the greatest dispatch. What effective hospital and clinic treatment means to cope with the inroads of disease and protect as well, innocent men, women and children from these highly contagious diseases in the large City of New York, should be represented in the superior safeguards these hospitals set up to afford every possible protection to human mankind, and

Whereas, When it is considered that the average expense to most states and cities for the care and treatment of its indigent—blind—sick and insane is equal to approximately from 20% to 22% of their entire yearly earnings, it is not difficult to understand from a human and economic point of view why the greater the human derelicts falling back on the City as incurable and permanently disabled—the greater are the years of hospitalization—with millions of dollars expense to the taxpayer, and

Whereas, We must consider the most serious humanitarian interest, as well as a great finan-

COMMITTEE ON LEGISLATION

Number 71

any of the surgical and therapeutic procedures outlined above

5 Although this amendment confers authority for such extension of practice, would the osteopaths undertake it?

Who knows? None would undertake what they knew they could not do, but how can they know the full influence of drugs without having studied them and been trained in their use? Osteopaths are human and will not long have authority without employing it

It rite to your assemblyman immediately filing your protest, and give your reasons

Bulletin No 8
March 13, 1937

The following bills have been introduced since the issuance of our last bulletin

Senate Int. 1118—Feld, Assembly Int. 1573—Miss Byrne, for registration of nurses, continuing board of examiners and prescribing rules and regulations, also for appointment of advisory council by department. Referred to the Education Committee

Comment At a hearing given this bill as well as the other nurse bills, on March 9th, it was opposed on the ground that it would lower educational standards by admitting to licensure girls who could not meet the educational requirements of our present law

Senate Int. 1223—Wojtkowiak, Assembly Int. 1672—Wadsworth, creates the New York State Mineral Authority to transfer Saratoga Springs Reservation Referred to the Finance Committee in the Senate and the Health Committee in the Assembly

Comment The popularity of the work done by the State in developing the Saratoga springs has stimulated people in other parts of the State, where mineral springs are located, to ask for similar interest, and a number of springs have been investigated by commissions of the Legislature in the last two or three years This bill proposes an extension of the Saratoga Commission with the idea of promoting and developing some of the other springs

Senate Int. 1228—Garrity, Assembly Int. 1675—Fite, amends the General Municipal Law to provide that a volunteer fireman injured in performance of duties must be received in any hospital for care and treatment at usual ward patient rates or at rates specified in contract, if there is one with municipality Referred to the Cities Committee

Senate Int. 1317—Kleinfeld, amends the Education Law, adds new section to the General Municipal Law, defining radiology, prohibiting practice except by certain persons, and empowering municipalities to grant permits to physicians, dentists, and osteopaths to conduct radiology laboratories Referred to the Education Committee

Comment A court decision some years ago interpreted the taking of x-ray pictures as equivalent to taking a picture with any camera, and stated that so long as no attempt was made to diagnose or attach significance to the shadows recorded, the operator was not engaging in the practice of medicine The medical profession has always taken exception to this opinion and this bill is intended to correct that situation It also carries a penalty for violation

Assembly Int. 1558—G B Parsons, amends the Lien Law to extend hospital liens for treatment and care of persons injured as result of negligence, to injuries received within one month instead of one week prior to admission, and to verdicts, etc rendered in action by husband, parent or guardian for expenses or loss of service, and extends time of such lien from one to three years Referred to the General Laws Committee

Assembly Int. 1585—McLaughlin adds new section to the General Municipal Law, giving municipal corporation power to adopt sanitary and health regulations for, and to license and inspect, roadside cottages at annual fee not to exceed \$25 00 Referred to the Cities Committee

Assembly Int. 1603—Hawkins, adds new section to the Public Health Law, by appropriating \$1,000,000 as revolving fund in the Health Department for buying and distributing pneumonia serum Referred to the Ways and Means Committee

Comment The publicity which has resulted from the activities of the Pneumonia Control Committee is producing an increased interest in serum treatment The State and the City of New York have been able to meet the demands for serums for Types I and II, but they have no Types V, VII, and VIII products These are produced commercially and seem valuable enough for the State to produce One million dollars is more than would be needed, but the sponsor of the bill realizes that sums of money appropriated are rarely as large as those requested

Assembly Int. 1605—Milroe, amends the Education Law requiring applicants for license to practice osteopathy to pass an examination of state medical examiners

Brief in Opposition

In considering the advisability of enacting into law this amendment requested by the osteopaths, a number of matters should first receive due consideration. It is claimed by them, and rightly, that they must pass the same State Board examination that is set for physicians, but this is only a part of the story because in order to enter that examination physicians must show that they have studied and successfully passed courses in pharmacology and *materia medica*, and osteopaths must show that they have passed a course in the principles of osteopathy. Fully one-half of the osteopaths who are practicing in this State at present graduated when their schools were fundamentally opposed to recognizing that drugs had any value. If they spoke of drugs at all, they admitted that they did so in order to show by contrast their therapeutic inefficiency. The schools in those days taught anatomy and bloodless surgery. Within the last two years their schools have raised their educational requirements so that they are now equal to those required of physicians, but these changes will only benefit future candidates for licensure and can have little or no effect upon the qualifications of those who are now licensed in the State.

1 The bill states what surgery osteopaths *may not* perform, but are there not other surgical fields that this would give them authority to work in?

It would give them authority to treat compound fractures, open wounds, so long as the amputation of an extremity or the opening of the abdomen, chest or skull were not required, to treat burns, infections of the hands or feet—these are among the most troublesome conditions that confront the surgeons—and surgical treatment of conditions of the mouth and nose.

They could also undertake what surgery might be required in conditions of the eye, the ear, or the rectum, except when those conditions were caused by malignant growth.

2 What objection can there be to permitting them the use of narcotics, anesthetics, and antiseptics?

These are not specific names but indicate groups of drugs. For instance, some of the *narcotics* that would be made available are paraldehyde, opium, heroine, laudanum, trional, urethane, morphine, bromides, veronal, chloral, codeine, scopolamine. Some of the most powerful drugs that are used by physicians are included in this group and great care must be exercised in their administration.

Authority for using the following *anesthetics* would be conferred by this bill: chloroform, ethylene gas, ether cocaine, nitrous oxide gas, and novocain. The administration of an anesthetic is recognized by physicians as a highly dangerous procedure, and a knowledge of anesthetics is rapidly growing to be a specialty in the practice of medicine. It would permit them to employ regional and spinal anesthesia.

There are plenty of mild, harmless *antiseptics* purchasable anywhere, but there are also very powerful antiseptics that can not be purchased except at drug stores and most of them only as prescribed. Among these are potassium permanganate, iodoform, sodium arsenate, arsphenamine (salvarsan, 606), neoarsphenamine (neosalvarsan), formaldehyde (formalin), urotropin, Dakin's solution, Balsam of Peru, chrysarobin, ichthyol, atoxyl, phenyl salicylate, iodine, bichloride of mercury, acriflavine, tryparsamide, and argyrol.

Among the *vaccines* that would be made available are smallpox vaccine, typhoid vaccine, staphylococcus vaccine, gonococcus vaccine, scarlatinal vaccine, pneumococcus vaccine, dysentery vaccine, tuberculin, streptococcus vaccine, influenza vaccine, and cholera vaccine. Vaccines are not administered by the mouth, but must be introduced by hypodermic needle either beneath the skin, into the muscle, or into the veins. These are not simple procedures but should be undertaken only by persons who have been thoroughly trained.

The *antitoxin* group is not so large, but their administration is very difficult and should only be done by persons thoroughly trained in their use.

3 Would osteopaths under this bill have authority for treating the venereal diseases?

They would be able to use salvarsan, mercury, and bismuth, which are the drugs that are used for killing or inhibiting the spirochete. They would also have authority for treating gonorrhea both with antiseptic irrigations and with vaccine.

The diagnosis and treatment of the venereal diseases are so difficult and highly specialized that physicians have found it necessary to take special courses of training in order to qualify themselves. And when we consider the prevalence of these diseases and their serious nature, it is obvious how very unwise it would be to grant the osteopaths or anybody else with less training than a physician, authority to treat them.

4 Do osteopaths have hospital facilities?

They do not, and until they do it would be very dangerous for them to undertake

PRIZE FOR REPORT ON CASES OF PNEUMONIA

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the NEW YORK STATE JOURNAL OF MEDICINE

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1

Address further inquiry to

Dr Edward S Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N Y

prescribed for all physicians, license not to entitle holder to perform any surgical operation for opening a natural body cavity, removal of cancer or other tumor and certain other major operations Referred to the Education Committee.

Comment This bill was originally introduced in 1934 by Mr O'Mara The osteopaths report that they have the approval of the Regents for its reintroduction The brief in opposition to the bill, which you received a few days ago, we believe will convince you that the amendment is vicious and should be vigorously opposed If you have not already expressed your opposition to your Assemblyman, please do so at once. *This is very important*

Assembly Int. 1650—Steingut, adds new section to the Public Welfare Law for central bureau of hospital clinics in each public welfare district to make rules for medical, surgical or other treatment in hospital clinics maintained by municipality or visited by State Charities Board Referred to the Relief and Welfare Committee.

Comment Several years ago this bill was before the Legislature and we endeavored to have it enacted into law The opposition,

however, came from the small welfare districts and probably this bill will have to be amended so as to make it apply to welfare districts in the larger cities only

Assembly Int. 1657—Fitzpatrick, adds new section to the Greater New York Charter, conferring exclusive jurisdiction on the health department in supervision of health conditions on all transit lines or other public conveyances operated within limits of city, to preserve human life or to care, promote or protect health and prevent unsanitary conditions and overcrowding Referred to the New York City Committee.

Action on Bills

S Int 210 A Pr 1465—Livingston County bars T B patients—to Governor

A Int 1325—Milmoec—Trustee, board member as medical inspector—3rd reading

HOMER L NELMS

JAMES L. GALLAGHER

B WALLACE HAMILTON

JOHN J MASTERSON

LEO F SIMPSON

CRIMINAL ABORTIONS AND REPUTABLE PHYSICIANS

Under this heading the *New England Journal of Medicine* discusses the problem that faces the ethical doctor when he is called in to treat a woman who is suffering, perhaps dying, after a criminal operation "What is the duty of the physician?" it asks, and continues

First of all, of course, it is to do his utmost to restore the patient to health, if possible But is that all? Has he no duty as regards the person who committed the crime? Does his consecration to the care of the sick include protection to the criminal? Would it not be at least part of preventive medicine to assist in protecting other persons?

The harm done by the criminal abortionist has reached such proportions that there are some persons who advocate the compulsory reporting by physicians of all abortions, just as

every gunshot wound is required by law to be reported, if the patient comes to a physician for treatment.

It may be that the compulsory reporting of abortions would not be necessary or wise or even expedient. But at the present time there seems to be a widespread indifference on the part of reputable physicians, in the matter of preventing criminal abortions, for they offer no assistance looking toward the apprehension of the abortionist. Would it be too much to ask that, in case a criminal abortion is suspected, the physician consult the medical examiner promptly instead of waiting until the death of the patient? It may be that no lives could be saved by calling the attention of the medical examiner to these patients when once blood-poisoning has gained control of the body, but if even a few other deaths could be prevented by checking the abortionist, a distinct service to humanity would be rendered.

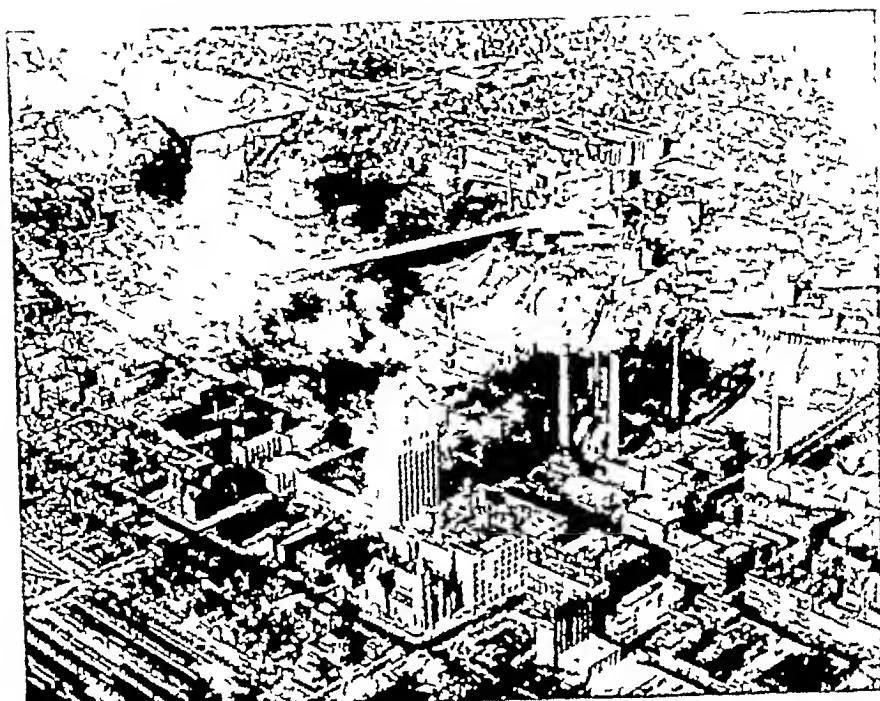
A JURY'S LESSON TO THE JUDGE

An English jury in January awarded £490 damages to Mr Frederick W Sones, of Ilford, against George C Foster, a "nature cure" practitioner, for the loss of his left leg after treatment by Foster Despite a very sympathetic summing up by the judge, who seemed to have a high opinion of unorthodox healers, the jury

found for the plaintiff They found Foster guilty of breach of duty in the advice and the treatment which he gave, and awarded Mr Sones a return of £40 in respect of the fees which he had paid They awarded him £50 as a form of solace for unnecessary pain and suffering, and £400 for the loss of his knee

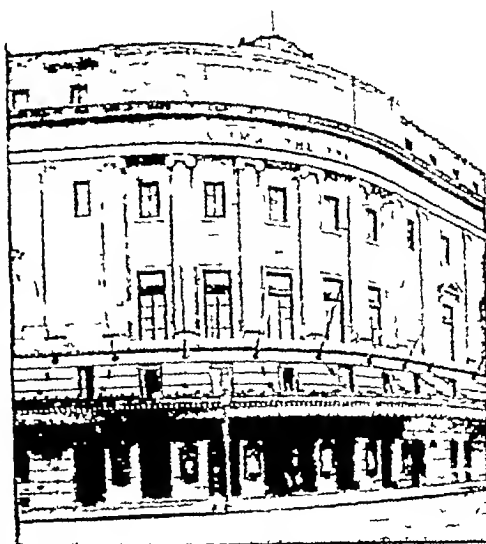
Annual Meeting

Important Data Concerning Accommodations, Transportation, etc

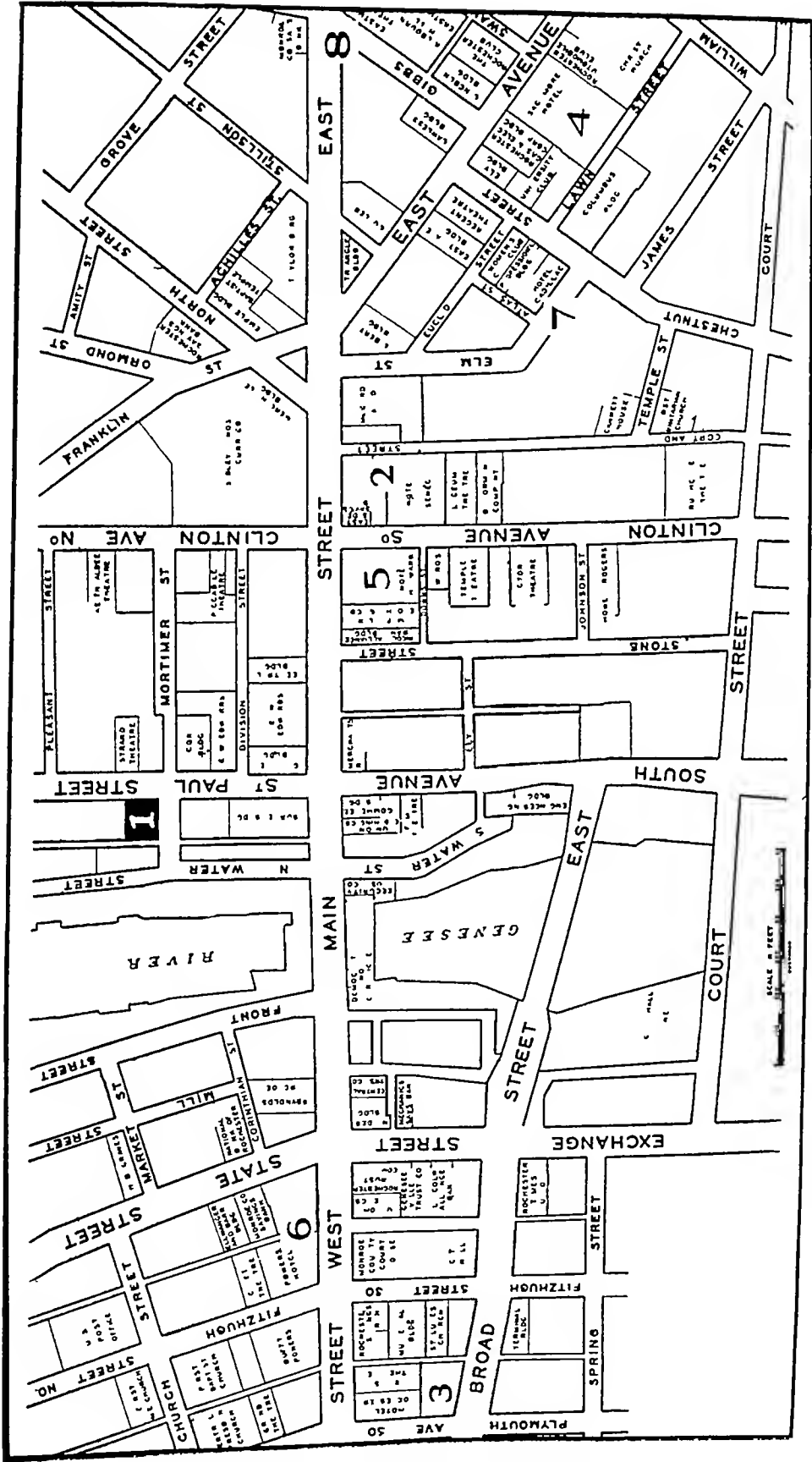


A Portion of Rochester's Central Industrial District

In Rochester, on May 24, 25, and 26 the largest attendance of any up-state meeting is evident from early requests for information on available hotel and transportation facilities. Members planning to attend are urgently requested to make hotel reservations as early as possible, as the most convenient hotel accommodations are being rapidly absorbed. Dr. Austin Morris, Chairman of the Hotel Committee, reports ample hotel facilities for all who wish to attend the meeting—but naturally preferred locations and rooms require reservations to be made sufficiently in advance. For the information of members a map is published showing the proximity of recommended hotels to the site of the meetings. Reservations should be made directly with the hotels. For the information of doctors attending, the following railroads enter Rochester—New York Central, Baltimore and Ohio, Pennsylvania, Lehigh Valley, and the Erie. Seventeen bus lines are also available for those living near Rochester.



Eastman Theatre which will feature one of the attractions of the Annual Meeting



1 Chamber of Commerce
2 Hotel Seneca

3 Hotel Rochester
4 Hotel Sagamore

5 Hotel Hayward
6 Hotel Powers

7 Hotel Cadillac
8 Eastman Theatre

Map of Downtown Rochester

Public Health News

Carbon Dust and Tuberculosis

The common statement that coal miners have a high resistance to tuberculosis has been accepted without serious challenge for years. The blackened lung of a coal miner seen at autopsy is an impressive sight, but the very presence of carbon in the pulmonary tissue often tempts the pathologist to exclude tuberculosis without further search. Recent studies, however, indicate that we shall probably have to revise our ideas concerning the protective value of carbon particles in the lung. M. J. Sakoloff,¹ in an article on anthracosis and tuberculosis demonstrates that coal mining of today is a hazard predisposing to tuberculosis. Excerpts of the article follow:

Tuberculosis is comparatively uncommon in workers exposed to dusts of carbon, lime and marble while those who work in an atmosphere laden with silica particles are particularly susceptible to tuberculous infection. Coal dust is the only one to which is attributed the property of inhibiting the development of tuberculosis. Attention was called to the high resistance of coal miners to tuberculosis as early as 1862 and since then evidence has been presented that carbon particles in the lung do exert a protective influence. During recent years, however, several investigators have reported that coal miners die from tuberculosis with greater frequency than the average of the total population. And in a group of 100 old and retired coal miners in Wales, tubercle bacilli were found in the sputum of six on the first examination.

It is probable that conditions under which modern miners work may explain the discrepancy between the older and more recent surveys. Formerly hand drills were used exclusively. In order to avoid the hard rock most of the drilling was done directly into the coal along the edge of the vein. The dust consisted of rather large particles which as a rule settled quickly. Thus the miner was exposed to almost pure carbon dust and, because the particles were large, symptoms of pneumoconiosis did not appear before exposure of from twelve to fifteen years.

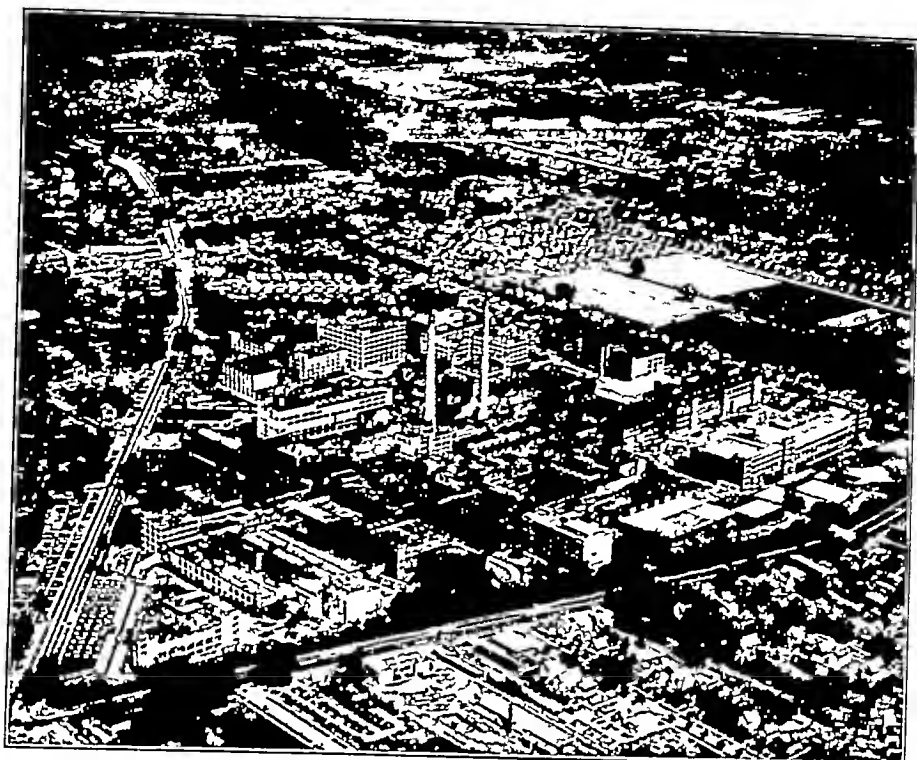
In the modern coal industry the pneumatic drill or "jackhammer" is used. The dust created by this instrument consists of fine particles which at times is blown back with great force into the face of the operator and some remains suspended in air for many hours. Inhalation of this fine highly concentrated dust may result in

severe respiratory impairment after an exposure of only three or four years.

The pneumatic drill has made it practicable to mine small veins of coal which under the old method were considered too insignificant and time-consuming to remove. To reach these small veins it is necessary to drill directly into rock and this increases the hazard to the present-day coal miner by adding to the coal dust a great amount of fine silica particles. Analysis of the dust of certain anthracite coal mines showed that at times concentration may be as high as one billion particles per cubic foot of air (average 124 million) and that certain of these dusts contain as much as thirty per cent of free silica. Uncomplicated anthracosis such as was common among miners of the old type has been replaced in the modern miner by fibrosis of the lung associated with silica deposits.

To determine the frequency of tuberculosis as a complication of anthracosis, observations were made upon a group of anthracite coal miners institutionalized because of disabling chronic pulmonary disease. Only those patients who had remained under treatment for two months or more were included. The group consisted of 418 men varying in age from twenty-one to sixty-seven years and whose period of exposure to mine dust ranged from three to fifty years. The average age was about forty-three years and the average exposure period nineteen years. All of these men had used the "jackhammer" periodically. Surface mine workers were not included.

In forty-two of these patients the lesions resulted solely from the action of mine dust, in fifty-seven per cent evidence of co-existing tuberculosis was found and in the small remainder non-tuberculous pulmonary complications occurred. The age-incidence study showed that tuberculosis appears later in life among these mine



Airplane view of Eastman Kodak Park showing residential section, homes of employees. The Eastman Kodak Co, manufacturers of films, plates, paper, chemicals, etc., consists of eighty-three buildings forming the world's largest photographic plant.



Airplane view of Highland Park showing lilacs in foreground. Municipally owned lakes to the south of Rochester supply the city with its water. Hemlock lake is a chief source of supply.

Medical News

Bronx County

DR. WARREN F. DRAPER, Assistant Surgeon General of the U. S. Public Health Service, addressed the Bronx County Medical Society at Burnside Manor on Feb. 17, on "The Social Security Act in Relation to the Medical Profession."

Cattaraugus County

A POSTGRADUATE COURSE in obstetrics for the physicians of Cattaraugus and Allegany counties was given on the Sundays of February at the Olean General Hospital under the auspices of the Committee on Public Health and Medical Education of the Medical Society of the State of New York. Dr. Thomas P. Farmer, chairman.

Cayuga County

AT A REGULAR MEETING of the Cayuga County Medical Society on Feb. 18 in Auburn City Hospital, with Dr. Donald M. Green, president of the society, presiding, the society acted unfavorably on the proposal for a survey along the lines of instruction and care of mothers and young children in Auburn, according to reports in the Auburn papers.

Doctor Green, when asked about the matter, stated that the doctors did not consider such a survey necessary for Auburn "in view of the fact that Auburn has a very good record in this matter—comparable with the best." The Auburn *Citizen Advertiser* says that this view was directly opposite to that expressed by Dr. John W. Copeland, health officer, who told a meeting of the Women's Auxiliary of the Cayuga County Medical Society that "there is great need for such a survey in Auburn" and that the city has "a higher death rate of mothers than any other city in the state in comparison to its population."

The meeting of the Cayuga County Medical Society was addressed by three Syracuse physicians, Dr. O. W. H. Mitchell, professor at Syracuse University, Dr. T. F. Laurie, of the Bureau of Venereal Diseases, Syracuse Department of Health, and Dr. O. D. Chapman, director of Syracuse City Laboratory.

The Syracuse doctors spoke in regard to control of venereal disease. A program for study of that problem will be conducted in Auburn in April.

Chautauqua County

"DISEASES OF THE PERIPHERAL VASCULAR SYSTEM" was discussed by Dr. Carroll J. Roberts, professor of medicine of the University of Buffalo, at the meeting of the Jamestown Medical Society on Feb. 25. At the next meeting on April 29, Dr. Douglas P. Arnold, attending physician of the Buffalo Children's Hospital, will speak on "Nephritis in Children." Dr. F. H. Clark will open the discussion.

Erie County

"A DOCTOR'S DIARY," motion picture production which was shown recently on the screen of one of the local theaters drew the fire of the Medical Society of Erie County on Feb. 15.

Formal attention of the physician's group was called to the picture by Dr. Charles W. Bethune as chairman of the board of censors of the county society, who scored the production as "unfair and untrue and not conformable with the ethics of organized medicine."

The society voted to send a letter of protest to Will Hays, movie czar, and the producers of the picture.

Unanimous approval of the so-called Detroit plan for elimination of "unfair competition" by public agencies with private physicians was voted.

The plan would return to the private physician much of the preventive health work now being done by the Department of Health and the Buffalo City hospital.

The approval was voted after Dr. Frederick W. Filsinger, chairman of the health survey committee, had read a report stressing the benefits that the plan would bring both to the medical profession and the public at large.

As a first step towards putting the plan into operation, the society instructed its public health committee, headed by Dr. Nelson W. Strohman, and two members of the health survey committee, Dr. John D. Naples and Dr. Conrad A. Mietus, to work out preliminary details. The committee then will seek the active co-operation of the Board of Health.

Fulton County

DR. M. STANTON read a paper at the

workers than it does in the general population, almost half were between forty-one and fifty year of age while only eight per cent were in the twenty-one to thirty age group. The incidence of tuberculosis varied directly with the amount of dust present in the lung.

The type of tuberculosis which complicates anthracosilicosis differs materially from that which is usually seen. It does not extend progressively downward from the apical or subapical region, but is found scattered throughout the lungs among the silicotic nodules. The tuberculous lesion is usually of slow evolution, is always present in both lungs and consists mainly of caseous nodules varying in size from a split-pea to a walnut. Tendency towards cavitation is great, demonstrable cavities being found in forty-three per cent of the patients. The excavations may attain tremendous size, sometimes occupying almost an entire lobe. They are often multiple and may occur anywhere in the lungs, but the larger ones are usually found in the upper lobes. Caseous pneumonia occurs as a terminal event in many instances. Extensive plastic changes in the pleura are nearly always associated. Effusion occurs infrequently.

The clinical picture of anthracosilicosis co-existing with tuberculosis may be either non-toxic or toxic. In the former type the patients present the usual symptoms of pneumoconiosis, dyspnoea, cough, expectoration and chest pains with slight fever in a few instances. Impairment of general health is slight. These cases are usually considered simple anthracosilicosis until attention is called to the tuberculosis by the discovery of tubercle bacilli or by roentgen-ray evidence.

The second or toxic form is characterized by extensive cavitations, the clinical picture being that of rapidly progressing tuberculosis. In addition to the local symptoms, there is always severe constitutional disturbance as evidenced by fever, loss of weight, loss of appetite, weakness and profuse sweating. Fever is a predominant feature of this form. It is present throughout the entire course of the disease and is septic in type, the afternoon temperature reaching 103 or 104 F in the majority of patients. Repeated and profuse haemoptyses occur in many instances.

The diagnosis of uncomplicated anthra-

cosilicosis presents no special problem but to determine whether or not tuberculosis coexists is very often a difficult task. The following points should be considered:

- 1 Discovery of tubercle bacilli in the sputum. However, extensive tuberculous disease may be present with consistently negative sputum, or occasionally the bacilli may be present in intermittent showers.

- 2 Serial roentgenographic studies (less valuable in advanced pneumoconiosis).

- 3 Marked constitutional disturbance.

- 4 Physical examination (not usually helpful).

- 5 Frank haemoptysis.

- 6 Pleural effusion (absent in uncomplicated anthracosilicosis).

- 7 Tuberculosis in other organs.

The prognosis depends mostly upon the pathological condition. The pulmonary changes which occur as a result of the inhalation of dust are permanent and cannot be altered in any way by therapeutic measures. In many patients, however, lessening of the severity of local symptoms and improvement in general health may be obtained by a prolonged period of rest in a suitable environment. In advanced pneumoconiosis, this improvement may be only temporary, as death often ensues as a result of acute intercurrent respiratory infections or of myocardial insufficiency. The addition of tuberculosis contributes immeasurably to the gravity of the prognosis. When this combination is present in the non-toxic form the patient may live for years in comparative comfort. In those in whom toxic variety of combined anthracosilicosis and tuberculosis develops, a fatal termination may occur in a relatively short time.

It is difficult to determine the frequency with which tuberculosis coexists with anthracosilicosis in coal miners because data from death records is concerned chiefly with individuals treated at home and the detection of tuberculosis occurring coincidentally with pneumoconiosis may require prolonged observation, repeated analyses of the sputum and serial roentgenographic study.

Reference

- 1 Anthracosilicosis and Tuberculosis, Martin J Sokoloff, *Am Rev of Tuberc*, Nov, 1936

The Fifth International Congress of Radiology, which has set before in London in 1925, Stockholm in 1928, Paris in 1931, and Zurich in 1934, will convene in Chicago September 13-17, under the Presidency of

Dr Arthur C Christie of Washington, DC. The Section on Electrolgy, which meets as part of the Congress, will have as Chairman, Dr Norman E Titus of New York City.

April 1, 1937]

MEDICAL NEWS

The Detroit health commissioner commended local authorities for "making a start in the right direction." It was brought out during the medical society meeting at which Dr Henry B Smith, president, presided, that the cooperative disease prevention program is definitely underway here—and was started in a modest way about eight years ago in its first phase, the education and encouragement of medical men to enable complete participation of those interested.

New York County

A NET GAIN IN MEMBERS of 218 for the year was reported to the Medical Society of the County of New York at its annual meeting. This is an increase of 100 above the average for the past five years. "The society is the largest single unit of organized medicine in the United States, perhaps in the entire world," said Dr De Sanctis in his presidential address.

DR. LOUIS PORTNOY was on the program of the Washington Square Medical Society meeting on Feb 25 in the Scudder School Auditorium.

Dr Portnoy gave a clinical case report, a feature by a member of the society at each of the monthly meetings. Dr Byron Stookey and Dr Jesse G M Bullowa were guest speakers.

Oneida County

MEMBERS OF THE UTICA ACADEMY of Medicine heard addresses by Dr John F Erdmann, Post Graduate Hospital, New York, and Dr Charles S Dickson of Utica, at their meeting in Hotel Utica on Feb 18. Doctor Erdmann told of the importance of early operation for removal of the gall bladder.

Those who discussed the subject included Drs Philip L Turner, Arthur R. Grant, Fred J Douglas, C S Dickson, W S Brady, R C Hall, T Wood Clarke, M T Powers, John Rossi and Harold L Pender. Doctor Dickson's paper was on "Tumors of the Small Intestine." He presented three case reports after review of literature on the subject, which was discussed by Doctor Erdmann.

SYRACUSE WOMEN PHYSICIANS were guests of honor at the annual intercollegiate dinner sponsored by the American Association of University Women on Feb 17 in the main ballroom of the Onondaga. Dr Gulielma S Alsop, author, lecturer, and former medical missionary in China, was

guest speaker. "The Anatomy of Personality" was discussed by Dr Alsop.

Oswego County

SETTLEMENT OF A LONG standing disagreement between the Department of Public Welfare and Oswego Hospital and the Oswego Academy of Medicine is expected within a short time.

Dr J F Burden, Dr C K Elder and Manager Edward W McCormack of Oswego Hospital recently discussed the situation with Mayor Richard G Cullivan and City Attorney Harry C Mizen, with the Mayor stating the city would be willing, he believed, to pay \$6 per patient day to Oswego Hospital, for relief cases sent to the institution for care and treatment. This figure would include all medical and surgical care. The Mayor explained to the physicians, a committee of the Academy, could not make a contract with the Academy, but legally was restricted to making any contract drawn for care of relief patients, with Oswego Hospital. The proposal is that the Hospital Board arrange with members of its medical and surgical staffs to perform all necessary services, paying for the work performed from the per diem fee.

The city now pays the hospital \$4 per patient day, and pays the same schedule to physicians and surgeons as they receive from private practice. During the several months this arrangement has been in effect, numbers of patients in the hospital have varied from one or two, to seven or eight, but the cases sent to the hospital principally have been emergency ones.

The next step, it was said, will be a conference between hospital trustees and the Oswego Academy of Medicine, of which members of the Academy will ask re-appointment on the staff of the hospital. The latter now has no staff, all members having resigned months ago, after failure of negotiations by the staff to secure an agreement from the city to pay a lump sum per annum for all staff services performed for relief patients.

THE MEETING OF THE Medical Society of the County of Oswego on March 3 was devoted to a symposium on pneumonia. The speakers were Dr Orren D Chapman, Dr Oliver W H Mitchell, and Dr Charles D Post, of Syracuse.

Rockland County

ABOUT TWENTY-FIVE MEMBERS of the Medical Society of the County of Rockland

regular meeting of the Fulton County Medical Society in Gloversville on Feb 18, on "The Treatment of Hernia by the Truss-Injection Method"

Kings County

REPRESENTATIVE EMANUEL CELLER, speaking at the fifth annual dinner of the Central Medical Council of Brooklyn on Feb 24, advised delay in Congressional action on President Roosevelt's plan to remodel the Supreme Court and urged immediate passage of the Summers-McCarran voluntary retirement bill as a means of "allowing the problem to settle itself"

Declaring that the highest quality of medical service is always the most economical, Dr Thomas A. McGoldrick, president of the Kings County Medical Society, told the 300 diners at the Hotel St. George "No economic scheme for controlling the practice of medicine, no matter how much saving it may appear to effect, will be accepted by the public unless it carries with it a guarantee of the highest quality of service as well"

He said the medical profession would be willing to leave to an informed public the solution of the problem of public health

Dr Irving E. Siris, president of the council, which comprises the six constituent societies of East New York, New Utrecht, Ocean, Williamsburgh, Bedford and East Flatbush, declared that "because of changing economic conditions physicians in general are receptive to any reform that will assure them some financial security"

Dr Siris offered a resolution for future consideration by the county society urging that the President appoint "an impartial committee of physicians representing groups advocating reform to study the various phases of medical activity before legislation is submitted to Congress"

Other speakers were Dr Alfred E. Shipley, deputy commissioner of hospitals, who expressed the sympathy of the commissioners with the profession and declared that they were looking out for their interests, Dr Frank L. Babbott, president of the Long Island College of Medicine, Dr Harold Rypins, secretary of the State Board of Medical Examiners, and Dr Charles H. Goodrich, president-elect of the New York State Medical Society. Dr Murray B. Gordon, chairman of the dinner, was toastmaster

Others on the dais included Dr John B. D'Albora, president-elect of the Kings County Medical Society, and Dr John J. Masterson, past president of the county society

Monroe County

ROCHESTER HEALTH AGENCIES cooperating with the County Medical Society are attempting to cut down the maternal death rate in a campaign which opened March 5 with a luncheon meeting in the Chamber of Commerce. Dr George W. Kosmak of New York, editor of the *American Journal of Obstetrics and Gynecology*, was the speaker. Dr Kosmak is a former president of the Maternity Center Association of New York. The Monroe County Medical Society is providing physicians as speakers before women's organizations to emphasize the need for prenatal care

TWO PRIZE AWARDS of the Rochester Academy of Medicine for 1937, each for one hundred dollars accompanied by a certificate of award, are offered for a thesis contributing to our knowledge of some problem in clinical medicine, (including all its various subdivisions). The Paine Drug Company Award is open only to Academy members. The Bausch and Lomb Award is open to any doctor residing in, or working in a medical institution in, Monroe County who has graduated in Medicine within five years. Recent and present members of the house staffs of hospitals are urged to choose some clinical problem that aroused their interest. The members of the visiting staff will gladly offer advice. The Academy Library will gladly help any one working for either of these Awards in looking up articles bearing on the topic. Copies of the conditions of the Awards can also be obtained from the Academy office. The competition closes on May 1, and all theses to be considered must be received at the office of the Rochester Academy of Medicine before that date.

Nassau County

NASSAU COUNTY CAN SAVE thousands of dollars in public health and hospitalization costs by following a co-operative program of preventative medicine similar to that effected in his home city, declared Dr Henry F. Vaughan, city of Detroit health commissioner on Feb 23

Dr Vaughan was the guest of the Medical Society of the County of Nassau during the day, presenting different phases of the "Detroit program" to members of the Nassau County Tuberculosis and Public Health Committee in its Mineola offices, to social service workers in the surrogate's courtroom, and to the medical society in the Bar Association building

Hospital News

Hospital Care for the Tuberculous—Why? Where? When? and How Much?

HAVEN EMERSON, M.D., *New York City*

Director of the Hospital Survey for New York, sponsored by the United Hospital Fund

Why

THERE IS NO OTHER MEANS of controlling the spread of tuberculosis which has proved so effective, so economical, so practicable and acceptable to the public, the patient's family and the patient himself as early admission and prolonged stay in hospitals built, equipped, organized, and staffed especially for the care of this disease in all its stages. That is why we need hospital beds for tuberculosis.

Nothing that the health department can do in the way of sanitary control of the patient at home, or to separate the sick from the well compares for effectiveness with hospital care of the tuberculous.

The modern surgical treatment and intensive medical management of human tuberculosis has made the hospital of constantly increasing importance. When the "cure" was a matter of deck chairs, milk and eggs, and time, many a home garden, roof, balcony or window tent served about as well as the hospitals of the earlier decades of this century. But today a great variety of operations, of manipulations, of local lung rest to supplement general bodily repose and upbuilding, require a degree of surgical expertness which can be developed best only in a special tuberculosis hospital, of which we have a few notable examples in New York City.

Where

The best place for hospital care for the great mass of tuberculosis patients is in the same general climate as that of their homes and not so far from these that family and friends find it costly in time and money to visit and support them in spirit through

the tedium of the many months of care. There is no climate or location so superior to those to be found within the limits of the city or in the adjacent counties of the State of New York as to warrant the building by the city of hospitals at greater distance. The majority of all tuberculosis patients from New York City can best be treated in hospitals in the borough of their residence, and this should be the policy and prime object of any provision in municipal or voluntary hospitals for tuberculosis of the lungs whatever the stage of the disease. There is a real advantage for patients with tuberculosis of bones and joints to be in a hospital on a sea beach as at Neponsit.

When

When is hospital care for the tuberculous needed? To this we must answer, Now!—and never more than now, when for the first time in many years we are threatened by a rising tuberculosis death rate. It there had not been a long period of neglect of this matter by four successive city administrations beginning with 1918, and if the fine standards and sound plans of the pre-war campaign against tuberculosis had not been sacrificed for an appearance of economy while the city was being systematically looted by its Tammany government we should not be faced with the present dilemma.

The two factors determining the time and amount of hospital expansion for the tuberculous are the growth of the population and the changes in the death rate from the disease. If the death rate falls while the population grows there may be no need of increase of hospital beds for the tuber-

Excerpts from an address at a luncheon of the New York Tuberculosis and Health Association, at the Hotel Pennsylvania, New York City, March 2, 1937

met at the Villa Lafayette, Spring Valley, on February 24, at the Society's third annual Winter Meeting, as reported by Dr W J Ryan, Secretary

Dr George W Unsworth President, read a paper entitled "The Evaluation of the Ideals and Ethics of the Present Day Physician," elaborating on the Hippocratic Oath Dr Eugene W Bogardus, Director, Division of Tuberculosis, Westchester County Department of Health, was the guest speaker He gave an informal presentation of case histories with a demonstration of x-ray films of some of the more interesting cases found in Westchester County

Resolutions of esteem and regret were adopted on the loss of Dr William R Sifler, past president of the society, who died on Feb 5

Schenectady County

DR E MACDONALD STANTON spoke on "Social Medicine" at the meeting of the auxiliary to the Schenectady County Medical Society on Feb 23 at the Ellis Hospital

Suffolk County

THE WOMAN'S AUXILIARY of the Suffolk County Medical Society now has about thirty paid members The President is Mrs W N Barnhardt and the President Elect is Mrs A E Soper At the Riverhead meeting, in October, the Auxiliary was addressed by Dr William H Ross Dr Ross gave a short history of the Auxiliary, as a national, state and local organization, explaining the purposes of the organization and how it could give valuable assistance and support to the Medical Society

The second meeting was held on December 2 This meeting was addressed by Dr A T Davis, Health Commissioner, on the Value of Compulsory Health Examinations of Domestic obtained through an Employment Agency

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Sullivan County

DR EDWARD S ROGERS, director of the State Bureau of Pneumonia Control, discussed the "General Pneumonia Control Program for New York State" on Feb 24 before the meeting of the Sullivan County Medical Society at the Lenape Hotel in Liberty

Westchester County

THE MEDICAL SOCIETY of the County of Westchester, at its meeting on Feb 16, heard an address by Dr Howard W Haggard, Associate Professor of Applied Physiology at Yale University, on "Medicine in the News"

An invitation has been accepted from the Nassau County Society to hold the Third Annual Joint Dinner Meeting and Golf Tournament in Nassau County late in May or early in June

DR LISLE B KINGERY was elected President of the White Plains Medical Society at its Annual Meeting Dr E C Wood was elected Vice-President and Dr Harry Klapper was re-elected Secretary and Treasurer Governors elected for two year terms were Dr D A MacDonald, the retiring President, and Dr D C McElligott Dr Milton A Bridges, Associate in Medicine at the New York Post-Graduate Medical School, spoke informally on diet therapy An interesting discussion followed

THE REGULAR MEETING OF THE Medical Society of the County of Westchester was held on March 16 at the New York Hospital, Westchester Division, White Plains The speaker was Dr John F Erdmann whose title was, "The Treatment of Cholecystitis, Cholelithiasis and Cholangitis"

THE COUNTY MEDICAL Society will celebrate its 140th Anniversary with a Banquet at the Hotel Biltmore in New York City, April 20

THE LATE DR JOHN J THOMSON, chief of the eye, ear, nose and throat departments of the Mount Vernon and Bronxville hospitals, left a gross estate of \$333,415 when he died on November 13, 1935, according to a transfer tax appraisal filed recently by the State Tax Bureau in Surrogate's Court

Dr Thomson was prominent in the medical profession throughout the East, being a member of many groups, and for fourteen years president of the medical board of the Mount Vernon Hospital

His estate included real estate, valued at \$28,500, securities, \$26,366, including seventy-five shares of the Tuckahoe Home-Building and Loan Association, \$12,273, mortgages, \$272,894, cash, \$4,128, insurance, \$1,012, and miscellaneous assets, \$315

After bequeathing a legacy of \$9,000 to his brother, James E Thomson of Los Angeles, Dr Thomson left the remainder of his estate to his wife, Mary K Thomson of Mount Vernon

Mrs Thomson and F Irving Hull of Bronxville, N Y, are the executors

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desirability of maintaining reasonably cool conditions in the operating room for both patient and operating personnel

The use of air conditioned wards in the treatment of many allergic disorders has found considerable vogue. There is evidence that thermal factors are important in the precipitation of allergic attacks. Many factors appear to precipitate attacks, but the most potent appears to be a sudden temperature change, which may be practically eliminated by air conditioning. There are also many persons who cannot be effectively desensitized to allergens but who can obtain varying degrees of relief from filtration of air borne antigens. It appears, in

fact, that the chief remedial factor in the treatment by conditioned air is the filtration of pollen. This effect can be obtained sometimes by simple filtration without air cooling. However, comfortable temperatures between 75 and 82 F in warm weather and a relative humidity well below fifty per cent appear to be beneficial and desirable.

Enough preliminary work has now been done apparently to indicate the lines along which air conditioning should be introduced into hospitals. Before embarking on any program of air conditioning, Yaglou's report deserves the careful study of all those hospitals now or soon to be in a position to install additional equipment.

Pneumonia Control Program Sponsored by Health Groups

At the present time, a Pneumonia Control Program is being carried on in New York State, under the sponsorship of the State Department of Health, the State Association of Public Health Laboratories, the Metropolitan Life Insurance Company, the Commonwealth Fund, and the Medical Society of the State of New York. The purposes of this campaign may be briefly summarized as follows:

- 1 Early medical care for pneumonia patients
- 2 Laboratory service for rapid type determination and other bacteriological studies
- 3 Increased use of concentrated antipneumococcic sera when this treatment is indicated
- 4 Adequate nursing service for all patients

It has been repeatedly demonstrated that the use of antipneumococcic serum in the types of pneumonia where this is indicated has cut the mortality of this disease remarkably, particularly in Type I pneumonia. Of course, to achieve these results, it is essential that serum be given early in the disease. Fortunately, at the present time, the method of determining the type of pneu-

monia has been greatly simplified and this service is now quite universally available. It is, therefore, readily understood why every case of pneumonia, or suspected case of pneumonia should be typed early. Recent reports, however, indicate that only one-half of hospitalized cases in New York State have had such bacteriological studies. It would seem that the State Hospital Association could aid in correcting this condition by calling this matter to the attention of the staffs of the various hospitals. It is further suggested that the staffs in arranging their regular meetings, give consideration to the subject of pneumonia, and especially with reference to the use of antipneumococcic serum. The staffs of the hospitals can also aid materially in this work by urging all physicians to send in promptly their reports on cases where antipneumococcic serum has been used.

The sponsors of the Pneumonia Control Program are appreciative of the fine co-operation which has already been shown by the management of the hospitals and by the medical profession.

THOMAS P. FARMER

Chairman, Committee on Public Health and Medical Education

Improvements

CITING AN ANNUAL INCREASE of 4,000 in the population of State hospitals and prisons, Gov. Herbert H. Lehman has asked the Legislature to submit to the voters next fall a proposed \$60,000,000 bond issue for capital improvements.

Bills carrying out the Lehman program were introduced by Senator Jeremiah F. Twomey of Brooklyn and Assemblyman Meyer Alterman of New York, Democrats.

"Each year for the past several years," the Governor said, "the population of our hospitals and homes for the mentally sick has increased by about 3,000 patients. This rate of increase is likely to continue. And in addition to providing facilities for new patients, the State will, under an existing law, have to vacate within a few years the State hospital at Ward's Island, now housing 3,500 patients."

culous for many years. But when the death rate from tuberculosis remains stationary, or, as in 1936, actually rises while the population continues to grow then is the time to build quickly and liberally for hospital care, first as an intelligent, economical, and humane provision for the sick, and secondly as a guarantee that we shall further reduce the incidence of the disease in the future. We are at that exact point in the history of this metropolis now and delay means catastrophe.

How Much

The question arises as to the number of hospital beds we need at once and in the future. The most liberal provision among the large cities in the United States is two beds for each death from tuberculosis in the year. The least allowance considered sufficient in the past has been one hospital bed for each annual death from this disease.

In 1936 there were 4,586 deaths in New York City from tuberculosis and the normal capacity of the tuberculosis hospitals was

5,184, while the average census of these hospitals during the year was 5,425 patients.

There are needed now a minimum of 2,500 more hospital beds for tuberculous patients from the resident population of New York City alone, and even with this addition we should fall far short of the provision made by a half dozen other cities of this country.

This would give New York City a ratio of 17 beds per annual death from tuberculosis while Detroit has 23, Milwaukee 20, Buffalo 21, and Seattle has 21 beds per death.

If we added 5,000 beds to our present hospital capacity we should just equal the provision those cities have made. The resulting 10,184 beds would prove none too many for our present population, and would be an economical investment which would suffice for all the hospital needs of the city for this disease until it reaches its expected maximum population in another twenty-five years, and probably for all time thereafter.

Hospital Air Conditioning

NOW IS THE TIME WHEN many hospitals are thinking of the desirability of air conditioning for the approaching summer, and the *Journal of the AMA* takes the occasion to review an article on it by C. P. Yaglou in the *Journal of Industrial Hygiene and Toxicology*. Of course the expense of air-conditioning an entire hospital hardly seems justified. At present it concerns principally nurseries for premature infants, anesthesia and operating rooms, oxygen therapy chambers, heat therapy rooms or cabinets and wards for allergic patients.

Comparative observations of premature infants in conditioned and unconditioned wards demonstrate conclusively the favorable effect of conditioning on stabilization of body temperature. The favorable effect apparently resulted from better control of temperature, superior ventilation methods, suitable provision for cooling the room in warm weather and the comparatively high humidity. Similarly, maximum gain in body weight after the first week of life occurred in the conditioned nurseries under high humidity in infants weighing less than five pounds. The incidence and severity of

digestive syndromes with diarrhea, persistent vomiting, diminishing gains or loss of body weight and other untoward symptoms were generally twice as high under low than under high humidity. Finally, the mortality of premature infants was found to be greatly affected by humidity, achieving its lowest rate in conditioned nurseries under a high humidity of sixty-five per cent or more.

Air conditioning in operating rooms is mainly concerned with the welfare of the patient, the comfort and efficiency of the surgeon and his personnel and the safety of the whole procedure. There is complete unanimity among all workers as to the effectiveness of high humidity on the prevention of accumulation of static, this is therefore an important measure of safety where explosive gases are used. The problem of operating room temperature is a difficult one and not much is known concerning the optimal air conditions necessary to maintain a normal body temperature under the influence of anesthesia and during the immediate post-operative period. What evidence there is, however, points to the

In addition to the sanatorium, the motion picture industry has also contributed memorial wards in the French Hospital and a large tract in Kensico Cemetery which, with the hospital will be administered by the Will Rogers Memorial Fund

. . .

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THE STAFF OF ST PETER'S HOSPITAL in Brooklyn gave a testimonial dinner to Dr Thomas A. McGoldrick, president of the Medical Society of the County of Kings, at the Towers Hotel, on Feb 8 Over 400 were present Dr McGoldrick was given a gold watch as a token of the esteem of his staff associates Many eminent guests attended

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ALBERT M LE MESSURIER was reelected president of the board of directors of the Syracuse Hospital Service Corporation at the annual meeting recently

THE NEW WING OF St. Joseph Hospital, Far Rockaway, will be placed in service probably the early part of April, it is announced. The wing, constructed at a cost of more than \$70,000, is nearing completion.

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PLANS FOR THE CONSTRUCTION of a \$500,000 addition to the present Glens Falls Hospital, to double its capacity of 100 patients, are announced by the hospital board of directors through the president, William H. Barber. A drive for funds will be launched April 15 and it is expected that the addition will be completed within a year. The new structure will take the form of a wing on the south side of the present Park Street building, which itself is to be remodeled. The hospital recently acquired a large piece of property on the corner of Sheldon and Park streets, on which the wing will be erected after three houses and the Nurses' Home located there have been demolished.

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A NEW CHILDREN'S UNIT has been added to the Homer Folks Tuberculosis Sanatorium at Oneonta, and the nurses' home is to be enlarged.

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PRELIMINARY PROGRESS is going forward rapidly for the construction of the proposed John Van Brunt Roe Hospital at Patchogue.

DEGRAFF MEMORIAL HOSPITAL at North Tonawanda is putting in a new laboratory.

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THE MUNICIPAL HOSPITAL at Niagara Falls is to be remodeled at a cost of \$45,000. A brick structure will replace the two present frame ones, and new equipment will be installed.

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THE WPA IS MAKING renovations and improvements at Sea View Hospital on Staten Island that will cost \$2,000,000. It is reported that 650 men are engaged in modernization and repair work on 113 buildings situated on 800 acres of hospital grounds.

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THE STATE PLANS to spend \$150,000 on a sewage disposal plant at the Gowanda State Hospital.

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THE BINGHAMTON CITY HOSPITAL is putting in a new interfloor call system, such as is in wide use in many large hospitals.

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THE NEW YORK POLYCLINIC Medical School and Hospital has opened its new X-ray Department. Entirely new and up-to-date equipment has been installed in the new building. The installation is completely shockproof. There are five radiographic rooms to cover all phases of diagnostic roentgenology, and a shockproof mobile unit is included, as well as a complete X-ray Therapy Department.

Newsy Notes

THE GOWANDA STATE Homeopathic Hospital has instituted a new boarding program, which was recently explained by Miss Jessie M. Decker, the hospital's Director of Social Service.

Miss Decker stated that a new plan for boarding patients in private homes, copied from the system used for the mentally ill in Belgium, had recently been inaugurated by the Gowanda Hospital, following successful experience with the plan by various other state institutions, and that at present, Gowanda had ten patients in private boarding homes. It has been found, said Miss Decker, that often a person could be adjusted outside the institution and away from former surroundings, very satisfactorily.

THE WILL ROGERS MEMORIAL Hospital tribute of the motion picture industry to the memory of the cowboy humorist, newspaper philosopher and motion picture star, came into official existence when the deed to the former N. V. A. Sanatorium at Saranac Lake was presented to Jesse H. Jones, chairman of the Reconstruction Finance Corporation and treasurer of the Will Rogers Memorial Commission on Feb. 25.

The presentation, on behalf of the industry and its allied arts, was made by Will H. Hays, head of the Motion Picture Producers and Distributors of America in a ceremony in the studio of Fox Movietone News in New York City.

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Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Proof Required to Establish Malpractice Case

Frequently when a patient undergoes a long period of suffering after an injury, due to his general physical condition, or due to complications over which his attending physician has no control, he seeks to hold the physician responsible on the theory that he should have been able to confine the period of disability to a minimum. An example of such a situation is found in a case very recently decided by the highest court of one of the Mid-western States*.

A young woman, twenty-five years of age sustained a comminuted fracture of her right tibia, five inches below the knee. She was taken promptly to a clinic conducted by Doctors S and A. X-rays were immediately taken, and as soon as the interpretation was available, the fracture was reduced and a plaster-of-paris cast was applied from above the knee to below the ankle. Within a short time she complained of pain, particularly complaining that the cast hurt her. The next day Dr. A. opened the cast to some extent to relieve pressure, and Dr. S. the following day loosened the cast further.

Treatment continued for two weeks with the cast in place, when additional x-rays were taken, and a slight overlapping of the ends of the bone was detected. The doctors thereupon applied a so-called Brown splint, which was described as consisting of a wire inserted through the skin back of the tendon of the heel, to which a weight was applied, with the limb left exposed to permit massage. This form of treatment was continued for nearly three weeks. At that time the bone was found in perfect position and another cast was applied, and the patient went home from the hospital.

At her home Dr. S. continued to care for her from time to time. She frequently complained of pain, but Dr. S. diagnosed no undue swelling or anything other than a gradual healing process. The cast was loosened by him in ten days and in four weeks it was removed. Check up three weeks later showed the patient's condition good.

The patient returned to her work as a

stenographer, and before another month had gone by, she again made complaints to the doctors about pain and soreness in the region of the injury and also in the knee and ankle. She was told to have diathermy treatments. Another period of three months elapsed and the patient went to Dr. L., who found the right leg swollen and red, and apparently painful. After examination, including x-rays, Dr. L. diagnosed an inflammatory process of the bone, above the fracture itself. Dr. L. concluded that care by a bone specialist was needed and sent the patient to the Mayo Clinic where she received treatment.

The patient, it is important to note, was one who in her childhood had suffered from infantile paralysis which had left her right leg somewhat abnormal. About eight years prior to the fracture, she had undergone two operations on the same limb which had been very beneficial to her, although before the fracture that limb was somewhat shortened, and she walked with a slight limp.

The patient brought a malpractice action against Dr. S. and Dr. A. charging them with improper care of her case. The specific charge was made that the defendants had negligently permitted infectious germs to enter the wound and leg of the plaintiff so as to cause her difficulties. Further it was claimed that defendants had negligently failed to diagnose and discover that plaintiff, while under their care, was suffering from an inflammation of the bone.

When the case was tried the facts were brought out to be substantially as outlined above. There was testimony by the plaintiff that, when the first cast was applied, she felt as if the ends of the bone had slipped, and that she had so informed the defendants, and that they had assured her that no such thing could have happened. The doctors called to testify in the plaintiff's case were Dr. L. and a Dr. M., one of the doctors from the Mayo Clinic. Dr. L. did not give any opinion as to the cause of the inflammation or infection, but testified that there is always some inflammation in connection with fractures of the type in question. Dr. M. made no criticism of the care rendered by the defendants. He con-

* Williamson v. Andrews 270 N. W. 6

ceded that Dr S had not caused the inflammatory process, and approved of diathermy as a method of treating the plaintiff's condition. He stated that it was speculative as to when the inflammation started or became manifest, and attributed some of the changes in the leg to the old infantile paralysis.

The Trial Court, however, submitted the case to the jury and a substantial verdict was returned in favor of the plaintiff. The defendants appealed to the highest Court of the State, and that Court determined that upon the record the defendants were entitled to a reversal, and judgment in their favor notwithstanding the verdict. In so ruling the Appellate Court said in part

It appears beyond question that it takes considerable time for a person to recover fully from a comminuted fracture. The healing process causes pain and discomfort. No one can state definitely the healing time. It differs in each individual case, and no rule can be laid down as to the time within which such fracture will fully heal. As a matter of fact we cannot find anything in the case indicating when the inflammation commenced or its cause.

With regard to the ultimate result, one counsel for plaintiff in closing the case to the jury candidly admitted that the bone "grew together in a way that has been praised by every doctor and is entirely satisfactory to us."***

The situation then simmers down to this. Dr L believed the case to be one requiring the expert services of a bone specialist. A recognized specialist was secured. The man so selected failed to find anything wrong either by way of commission or omission on the part of the attending doctor. The injured plaintiff has fully recovered. But she thinks Dr S should have done something (just what is left a dark secret) to discover an inflammatory condition in her leg. Liability is sought to be fastened because as said in her brief "We claim that it is not necessary for us to prove that Dr S caused by his negligence this inflammation. He is liable because he negligently failed to make any diagnosis or attempt to diagnose or discover that plaintiff while under his care, was suffering from inflammation of the bone thus extending and increasing the affliction, the period of the cure the pain and suffering and the expense."***

No one questions Dr S's qualifications. He is an experienced physician and surgeon in good standing and possessed of perhaps more than "the average skill" of members of his profession practicing in his community. Of course, this does not relieve him and his co-partners from liability if he failed to exercise the degree of skill and care required.

As we have already pointed out, the record is barren of expert medical testimony that the inflammatory process in and about the bone of plaintiff's leg was caused by anything done or omitted to be done by Dr S. Neither of plaintiff's experts gave any opinion as to when

this inflammation, other than such as naturally and necessarily resulted from the fracture, commenced or what caused it. Obviously this is a case where opinion evidence of competent medical experts is necessary to establish liability.*** The measure to be applied is whether the physician and surgeon in fact "conducted the operation according to an accepted standard of his profession."

In this, as in negligence cases in general, there must be proof of causal connection between the wrong complained of and the resulting injury. The burden of proving such negligent conduct rests upon plaintiff.

Plastic Surgery on Nose

A sixteen year old girl was brought to the office of a physician specializing in plastic and reconstructive surgery for the purpose of having an operation performed to correct certain conditions affecting her nose. Examination showed that the patient had a long, humped nose deviated to one side and that she had a thickened septum deviated to the right with pronounced obstruction of the nasal passage. The girl complained of considerable difficulty in breathing. The doctor suggested two operations for the purpose of endeavoring to correct the conditions which he found.

Under a local anesthesia, the doctor performed a submucous resection for the purpose of improving the patient's breathing. The patient remained in the hospital but a few days following the operation and her postoperative condition was satisfactory. Approximately three months later, the patient again entered the hospital and the doctor performed a plastic operation to correct the appearance of the nose. Under a local anesthesia, he removed the bony and cartilaginous hump and shortened the nose. He also narrowed the tip of the nose. The patient's recovery from the said operation was uneventful.

Subsequently, a malpractice action was instituted against the doctor in which the charge was made that the doctor had improperly performed the two operations so that the patient's condition was worse than before the operations were performed. The special claim was made that the defendant had undertaken the two operations in reverse order. A physical examination made of the plaintiff before the trial showed that her appearance was extremely satisfactory and that the plastic operation had in fact been beneficial to her.

The case came on for trial before a judge and a jury and during the course of the trial, the plaintiff's attorney consented to a dismissal of the case.

Across the Desk

The "Unsung Hero" of the Great Flood—the Doctor

"BOAT! BOAT URGENT! DOCTOR WANTED!" was the summons we often heard over the radio as we listened in to the calls relayed into our comfortable homes in January from the flood-ravaged regions along the raging Ohio river. And every call found a doctor ready to go. Out in the dark reaches of the swirling waters people were desperately ill, babies were born, epidemic threatened, and in every such need the doctors and nurses were always on the spot.

In fact, now that the medical journals are gathering and publishing the stories, it turns out that county medical societies located far back from the river stood ready, with relief corps fully organized and equipped, but were not needed. Such was the perfection of the medical service on the spot. A trained newspaper writer who never hesitates to throw the brickbat of criticism when deserved, has nothing but bouquets. Westbrook Pegler, visiting one of the deluged cities, wrote that "Evansville and the neighboring country are almost smothered in kindness and loving care." Doctors, he said, "lurk in every doorway with loaded needles, ready to skewer one and all with units of bug-juice against most of the ills that flesh is heir to."

He waggishly suggested that "it is a fine opportunity to have a baby or an appendicitis operation free, and honest ballyhoo against the plagues which used to follow floods probably will have the effect of preventing those plagues." And he frankly recognized what some overlook when he observed that "the heroic medicos have done themselves out of many an honest dollar in their priestly zeal to serve."

Physicians Are Rescuers and Sufferers Too

It must not be forgotten, either, that the physicians who were aiding the flood-sufferers were themselves losing thousands of dollars by the inundation. An Indiana doctor, working over a sick refugee, glanced out the window and remarked, "I think my house is drifting away," and calmly went on with his work. When some one offered

to help, he replied "Young man, what we need most is a good lettin' alone." The doctors were able to handle their job themselves, and did it in a style that will be talked about twenty years hence. Why wait twenty years? Why not give them their due now?

The enterprising Executive Secretary of the Indiana State Medical Association, Thomas A. Hendricks, made a trip in a coast-guard cutter through a part of the flooded area and saw for himself what the doctors were doing. He said over the radio at that time that "the unsung hero of the flood is the local family doctor. He was on the job before the state and national agencies were on the ground. Now he has joined forces and is working with the relief agencies. Long after the flood is gone from the headlines, and the relief agencies have withdrawn and the radios of the nation are turned in once again on Amos and Andy, the local family doctor will be down here in southern Indiana fighting disease and pestilence. He is the unsung hero." Later reports prove that his work was effective, for there has been a remarkably low incidence of contagious disease and very little loss of life.

The Indiana Secretary tells us only of the doctor's work in his own State, reports from other States will come in later, but we have merely to let our imagination duplicate the Indiana picture in Ohio, Illinois, and Kentucky, where the physicians were equally devoted and effective, to form an idea of the entire scene. A doctor working day and night at the medical headquarters in the Evansville coliseum spoke for hundreds more when he said

"As far as water is concerned, I don't even know there is a flood. I've only been out of the coliseum to go to the City Hall and I haven't had a bath for a week."

The "River Rat" and the Doctor

Schools, churches, Legion headquarters, public halls, were turned in a day into hospitals equipped with doctors and nurses. A "five star" feature, we are told, was an

emergency hospital in a church at Aurora Ind., where the records in the first five days of the flood showed 670 out-patients and thirty in-patients. Doctors and nurses worked in these improvised hospitals till they were asleep on their feet. And out on the racing yellow river were other physicians and nurses responding to the incessant calls "Boat urgent! Doctor wanted!"

Some day, says the Indiana Secretary, some genius will write an undying flood yarn of high water and high adventure entitled, "The River Rat and the Doctor." "River Rat" is a high title, it seems, higher than General or Admiral or Colonel for a River Rat is one who knows the channels and the hidden currents and how to compete safely day and night with Old Man River. It was the River Rats who piloted the doctors through the perils of the wild waters on their errands of mercy, and they should have a share in any bouquets that are being handed around. So off with our hats to the River Rats!

Public Health Service Stood a Terrific Test

A terrific strain fell upon the Public Health Service, and it stood up grandly. Urgent calls descended like an avalanche upon the State Board of Health for vast quantities of serums and vaccines, and every call was met. Rush purchases were made of sufficient quantities to immunize thousands.

Then came the hard problem of delivering the medical supplies into the flood area and to the refugee camps, where roads were either dangerous or actually impassable. As we are told by the Director of the Indiana State Board of Health, Dr. Verne K. Harvey, who was in charge of the situation, the state police, national guardsmen, legionnaires, Veterans of Foreign Wars, and many, many others "volunteered as messengers and braved untold dangers and hardships to get the supplies through."

As Dr. Harvey relates it in the state medical journal, he and his entire staff were on twenty-four-hour duty for several days. By a wise arrangement, an engineer, physician, and stenographer listened in on all emergency calls, so that expert attention could be given each situation. Later the purchase and distribution of medical sup-

plies were taken over by the Red Cross. Now the Health Board is busy overseeing the restoration of public and private water supplies, protection of milk and food supplies, disposal of sewage and pumping contaminated water from basements, wells, and cisterns.

A liberal education in health hazards is being given the people in posters and public notices tacked up everywhere.

"Multum in Parvo"

Some masterly examples of terse statement appear in the reports from the county medical societies. Think of the days and



"... what we need most is a good lettin' alone."

nights of heartbreaking labor behind these few words.

"In Mt. Vernon, 2,500 flood refugees were cared for through the efficient functioning of the Posey County Medical Society. Disease effectively held in check. Emergency hospital established in Memorial Coliseum. All refugees inoculated."

And read this crisp report from Spencer County.

"We were swamped with refugees, but with the aid of the State Board of Health, Red Cross, doctors, and nurses, more than 5,000 people were immunized, and no outbreak of contagious diseases developed."

Caesar wrote "I came, I saw, I conquered." Well might the doctors of the

flood region pen a far finer report "We came, we saw, we saved"

A Transformed Distillery

While mentioning the emergency hospitals set up in schools, churches, et cetera, it seems that we must not forget the distilleries. At Lawrenceburg the medical man of the hour was the plant physician of a distillery advertised every day in your newspaper. When the levee "busted," he moved the local medical supplies to the distillery and set up a temporary hospital and first aid station in the main office. A nearby building of the plant was transformed into a commissary and a warehouse blossomed out with 150 cots where wet and hungry refugees found rest and warmth. Local medical men and nurses were organized, and distillery officials put everything at their disposal. Two or three pneumonia patients were treated with oxygen with improvised nasal catheters—all recovered.

The medical situation was "never out of control," we are assured, although Lawrenceburg was almost completely inundated. The only power in town came from the distillery plant boilers, so we can imagine the feelings of everybody when the river rose

and drowned out the boiler fires! But we are reading about people who didn't know when they were licked. When the fires hissed out in a cloud of steam, the plant engineers hooked two locomotives to the plant steam line, and power was never interrupted! These locomotives were used for five days and at one time water was within a few inches of their fire boxes. Emergency surgical work was done at the emergency hospital and one appendectomy was done in a home, typhoid immunization shots given, and on February 3 no typhoid had been reported. Constant supply of good water was available from deep wells at the distillery and from Greendale. Local organization of physicians functioned smoothly, doctors and nurses sent by Red Cross and National Guard were invaluable.

Many pages of similar accounts might be written, not only of the physicians of Indiana, but of all the states where Old Man River was busy with his deviltry, and we may extend to them the salute given by Dr. Edmund D. Clark, President of the Indiana State Medical Society, at the close of a brief tribute.

"Doctors of southern Indiana, the State and the Nation are proud of you!"

DO YOU KNOW?

Animals that have been electrocuted can be saved by countershocks administered within four minutes, according to research by Prof. William T. McNiff and Dr. Leonard J. Piccoli of Fordham University.

Quality of meat can be recognized by its appearance, odor and texture. Good meat is firm and elastic to the touch, moist but not wet, and is red in color. It has a fresh, agreeable odor. The fat should contain no watery juices or jelly, and should be free from blood stains. Suet fat should be firm and white. Meat under the slightest suspicion as to its quality should never be used.

Says Dr. Richard C. Leonard, of the Maryland State Department of Health: "The teeth are built largely of mineral salts, notably those which contain calcium and phosphorus. The necessary tooth-building materials and the vitamins that are required for the maintenance of strong, healthy teeth are found in certain foods. Experience has proved that cow's milk, dairy products, eggs, green leafy vegetables, whole grain cereals,

and fresh fruit juices, especially of oranges and other citrus fruits and tomatoes, are the best sources of the construction elements necessary to the promotion of sound teeth and the maintenance of mouth health."

Ray Lyman Wilbur said: "The quality of medical care is an index of a civilization."

The habit of kissing a bruise or other hurt to make it well arose from the worldwide custom of sucking wounds to further their healing.

Persons who go from the northern clime to the tropics should avoid alcohol, eat simple food, get plenty of sleep and drink a great deal of water. Two years is the longest period northern people can live in the tropics without deterioration of health.

Baked beans, popularly thought of as the main diet of muscular men of the woods, contain a minimum of muscle-building proteins.

—*Excerpts from a press bulletin issued by the Bureau of Public Relations of the Medical Society of the State of New York*

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

The Intimate Side of a Woman's Life By Leona W. Chalmers. Octavo of 128 pages, illustrated. New York, Pioneer Publications, Inc., 1937. Cloth, \$1.50.

This, another sex book for the public, is unique in that it advances the idea that vaginal discharge is the source of nearly all the ills to which a woman is subject. The author calls it "the thief of womanly charm," and advocates plenty of douching which should be carried out by means of a spray which has been developed as scientific douching equipment for "unclean, unlovely wives." Pictures of it are shown, but the manufacturer's name is not mentioned. Presumably it may be bought in any drug store.

CHARLES A. GORDON

Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis By E. Noble Chamberlain, M.D. Octavo of 424 pages, illustrated. Baltimore: William Wood & Company, 1936. Cloth, \$8.00.

This will be of special help to students who, having mastered their theoretical knowledge of medicine, are yet confused by the similarity of signs and symptoms existing in various diseases. With the assistance of this book they will be able to coordinate their knowledge better, and to apply it in a practical manner in approaching the proper diagnosis, and hence the proper treatment.

The outstanding feature of the book is the way in which the author has described each symptom and has then proceeded to enumerate the conditions wherein these symptoms occur. The technique of eliciting symptoms is explained, the institution of special investigation described, and useful instrumentation illustrated. Dr. Chamberlain has thoughtfully provided numerous tables and the book is amply illustrated, containing 282 plates, 17 of which are in color.

It seems that in a work of this wide scope the author might have briefly outlined his preferred course of treatment. However, this is the only adverse criticism to be made of an otherwise excellent volume.

WILLIAM LINTZ

Cystoscopy and Urography By Jas. B. Macalpine, F.R.C.S. Second edition. Octavo of 478 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$9.00.

This is the second edition of an excellent work published in 1927.

It covers the entire field of diagnostic and therapeutic cystoscopy in a comprehensive manner. An especially fine quality of paper is used. This adds materially to the clearness of the illustrations, which are numerous and excellent, particularly the colored plates, which show beautifully a number of cystoscopic pictures frequently noted in actual practice.

We are sure that a copy of this book should and will find its way into the library of every student and practitioner of urology.

N. P. RATHBUN

Toxicology or the Effects of Poisons By Frank P. Underhill, Ph.D. Thoroughly revised by Theodore Koppanyi, Ph.D. Third edition. Octavo of 325 pages. Philadelphia, P. Blakiston's Son & Co., 1936. Cloth, \$2.50.

Underhill's *Toxicology* has been thoroughly revised by Theodore Koppanyi, Professor of Pharmacology and Materia Medica at Georgetown University School of Medicine.

A number of substances of toxicologic importance not included in previous editions have been added, chief among which are avertin, cinchophen, dinitrophenol, ephedrine, mercurial diuretics, newer barbituric acid derivatives, quinine and its substitutes, and thyroid.

Only essential facts of clinical importance are given; no attempt is made to enter into details of chemical reactions involved in the isolation and identification of poisons. Doctors Underhill and Koppanyi have displayed the unusual faculty of condensing their information in a very short space. The description of most drugs is adequately covered in one or two pages. A brief bibliography follows the presentation of each drug.

This book is highly recommended and should be in possession of every physician.

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St., N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

who prescribes drugs. It is a mine of information especially adapted to needs of the general practitioner and, indeed, might well be used as a standard text in our medical schools.

The practicing physician is interested chiefly in treatment, and since the treatment of drug poisoning is included, the reviewer suggests that in subsequent printings the title of the book be changed from "*Toxicology, or The Effects of Poisons*" to "*Toxicology or the Effects of Poisons and Their Treatment*"

CHARLES SOLOMON

Urology By Edward L. Keyes, F.A.C.S. & Russell S. Ferguson, M.D. Sixth edition. Quarto of 707 pages, illustrated. New York, D. Appleton-Century Company, 1936. Cloth, \$10.00.

In 1874 the Senior Keyes and Van Buren wrote a book on Surgical Diseases of the Genito-Urinary Organs. In 1888 Van Buren had passed on, and the Senior Keyes wrote a revision of the 1874 Book.

In 1903 we see an edition of the Book published by the Senior Keyes and associated with him his son E. L. Keyes Jr., who is the Senior author of this present sixth Edition of Urology.

In 1917 the Urology appears with the name of E. L. Keyes alone, the father having passed on. Subsequent editions of this appeared and now we have this one with a Junior Urologist associated with the Keyes who was the Junior Author in the 1903 edition. It is this continuity of experience that helps to make this book one of such great value to the clinician.

It is a far cry from the '74 edition which states that "gonorrhea is a local disease, that cancer is rarely seen in the bladder and that in desperate cases one might even open the bladder suprapubically to give relief," to the 1936 volume which speaks of gonorrhea as a systemic disease and discusses the treatment of the common bladder cancer by means of radium implantations through suprapubic or cystoscopic approach.

This present edition by reason of its beautiful English, its precise technical descriptions, and its mellow wisdom, not only that of a great urologist but of a wise and humane physician, is for this reviewer, the perfect flowering of all the editions since 1874.

Most of the illustrations are in black and white and are quite satisfactory. The drawings of Miss Freret are fine. These with the compact text and the arrangement of contents by one who has been a great teacher all his life, make the book one of especial value for medical students. We prophesy that many medical schools will

make it their standard textbook and that all will place it on their required reading list.

STURDIVANT READ

A Preface to Nervous Disease By Stanley Cobb, M.D. Octavo of 173 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$2.50.

This brief manual is intended as an introduction to the study of nervous diseases. As a matter of fact it does not treat of nervous diseases but is in the main a summary of anatomical and physiologico-pathological considerations in health and disease of the nervous system. The author devotes a chapter to the subject of consciousness and the "mind-body" problem. Consciousness, we are told, is an integrative process. This integration can take place at any level of the cerebro-spinal axis. Consciousness is awareness and may be present in the lowest forms of vertebrates, and even in plants. Does not the sunflower turn toward the sun as if aware of the source of light? It is our humble opinion that no one will be benefited by adopting such conception of consciousness. Freud's postulate of the unconscious as a storehouse of repressed experiences, with unpleasant content and intolerable situations, is not mentioned. This book can be read with interest by all students of neurology.

JOSEPH SMITH

Oral Diagnosis and Treatment Planning A Textbook for Students and Practitioners of Dentistry and Medicine. By Samuel C. Miller, D.D.S. Octavo of 620 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., Inc., 1936. Cloth, \$7.50.

This book is one of the new type, dealing with oral diagnosis and treatment planning, and should be in the possession of all those practicing dentistry or any of its branches. Beginning with a chapter on The Science of Oral Diagnosis, it follows through with chapters on Pain of Dental Origin, Dental and Periodontal Diseases in Children, Diseases of the Oral Mucous Membranes Exclusive of the Neoplasms, Radiographic Interpretation, Diagnosis of Surgical Conditions, Caries, Its Detection and Diagnosis, Diagnosis for Bridgework and Bridge Design, Diagnosis in Orthodontia, Mouth Infections and Their Relation to Systemic Disease, and ends with a chapter on Salivary analysis. It is exceedingly well edited and makes a great effort to systematize oral examination. Contributions of great value, by men well versed in their subject, have been included. It is well illustrated and can be considered one of the finest works of its kind as yet published.

LAWRENCE J. DUNN

IODIZED OIL TECHNIC IN PTERYGIUM CASES

T J DIMITRY, M D, New Orleans, La

*Professor of Ophthalmology and Director of the Department, Louisiana State University,
Professor of Special Anatomy Loyola University*

The distention produced by the injection of iodized oil and the therapeutic effect are of value in solving the pterygium problem, for the first establishes it as a loose tissue growth, and the second that it is a type of tissue which can be made compact by the action of the oil.

The pterygium when injected with oil is in consequence made to balloon, and if iodized oil* is used for the purpose it will act upon this distensible tissue and flatten it.

If the oil is injected to the side or against the sclera under the growth, the pterygium will not enlarge, for the oil so placed will spread, and to have the ballooning, it must be into the pterygium stroma where it is restricted. Therefore the pterygium is a restricted loose tissue growth in the conjunctiva.

These observations may be added to by demonstrating the attained effect when the growth is grasped and almost encircled by forceps and moving it about on the globe, showing that it does not make attachment to the sclera.

The same loose tissue nature exists in the head of the pterygium, however both the head and the body are under a comparatively healthy epithelial covering. The head as it progresses into the cornea remains always under this covering, and

as the growth advances, destroys the homogeneous membrane of Bowman. It is as it was, a loose tissue mass that balloons, and when grasped with forceps made to advance into the cornea.

Such a fibrillated tissue—both body and head—makes up the pterygium and offers no resistance to the flow of the iodized oil, for the oil can be made to insinuate itself into this loose fabrication and to excite a mild inflammation of the lymphoid type. The growth becomes dotted with the oil and macrophic cells increase greatly.

The attributes of the oil show that it will permeate into and excite an inflammation in the loose tissue which is most desirable for this type of pathology. This action topples the loose tissue and makes flat an otherwise distensible tissue.

To prove that the action of the oil was as stated, the author by physical means obtained the same razing after inserting a probe into the pterygium stroma. He broke up the loose fabrication and it became levelled, the same effect as attained from the action of the oil. In consequence of such effects, one physical and the other chemical, both flattening the loose tissue, he made the deduction that the transplantation operation on the pterygium accomplishes its excellent results by the undermining and the breaking up of the tissue, and not by the change in its

* Lipiodol (Lafay) was used in this study.

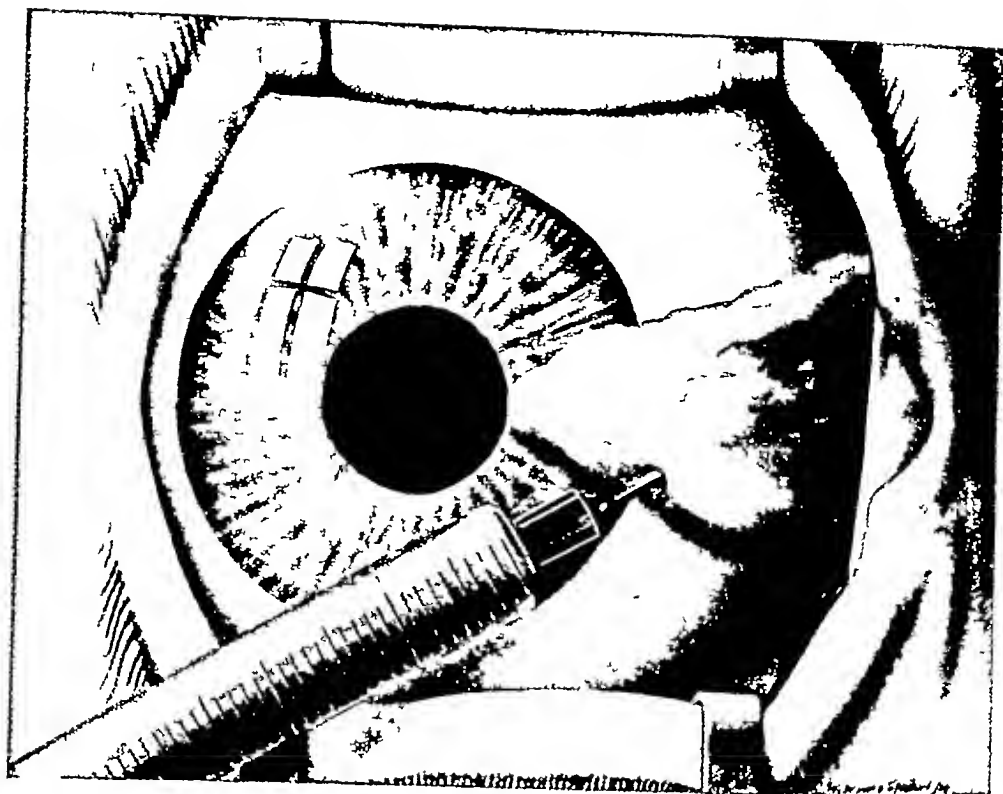


Fig 1 The pterygium is injected with iodized oil

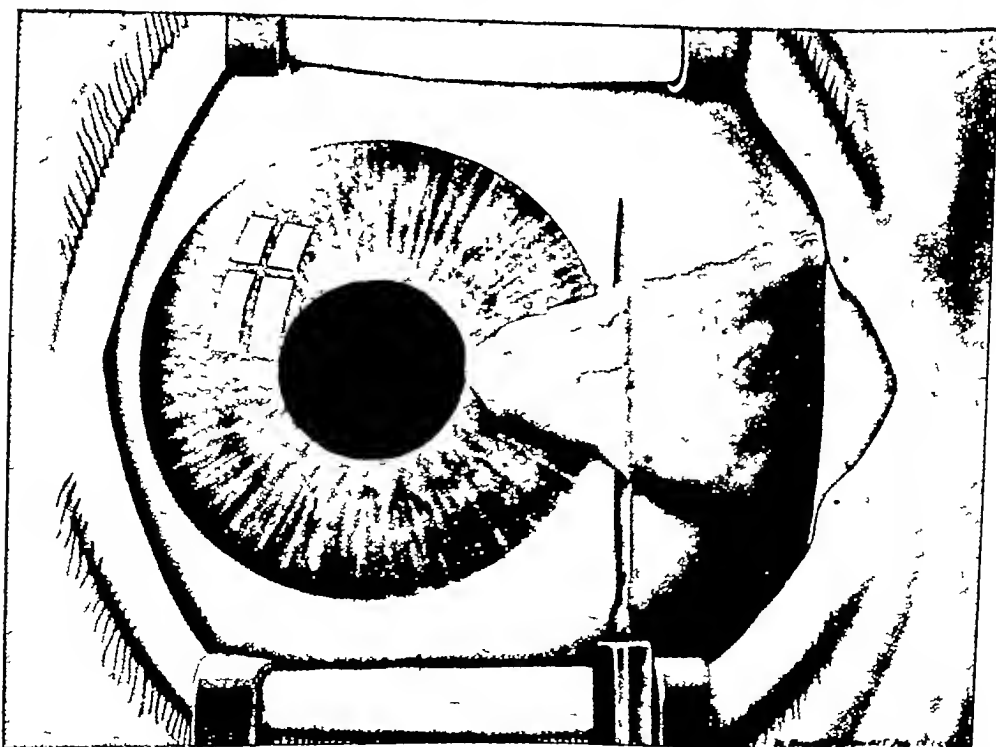


Fig 2 The distention is proof of a loose tissue and makes it possible to sever the head from the body

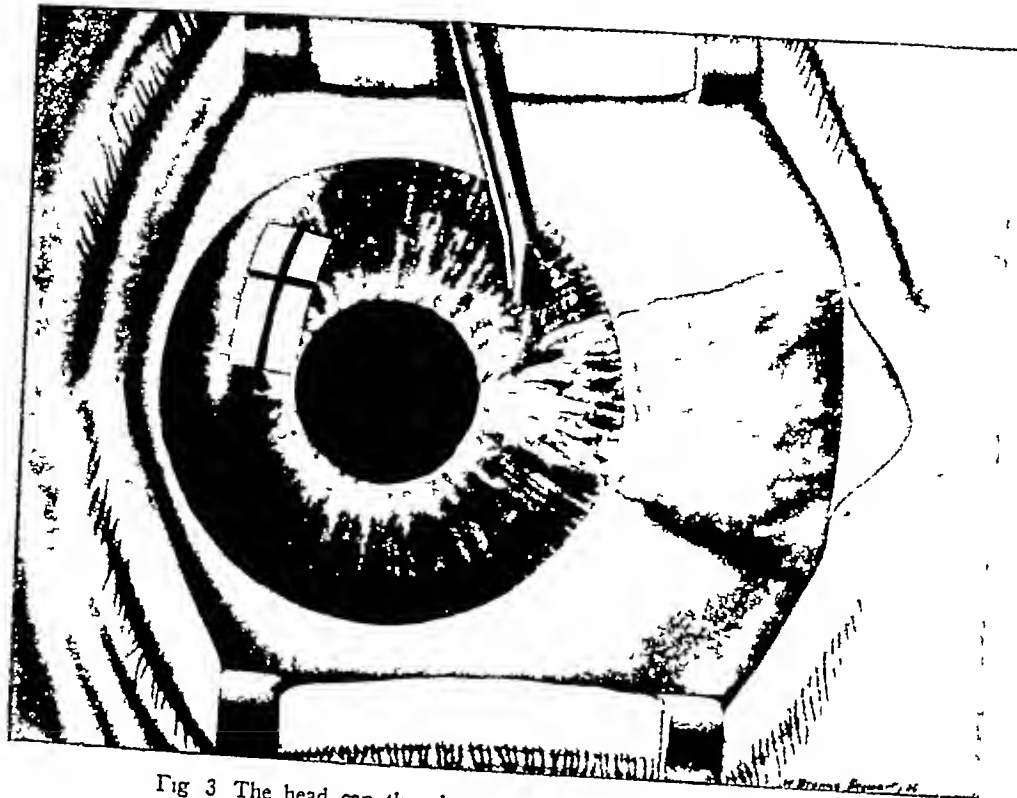


Fig 3 The head can then be pulled by forceps from the cornea.

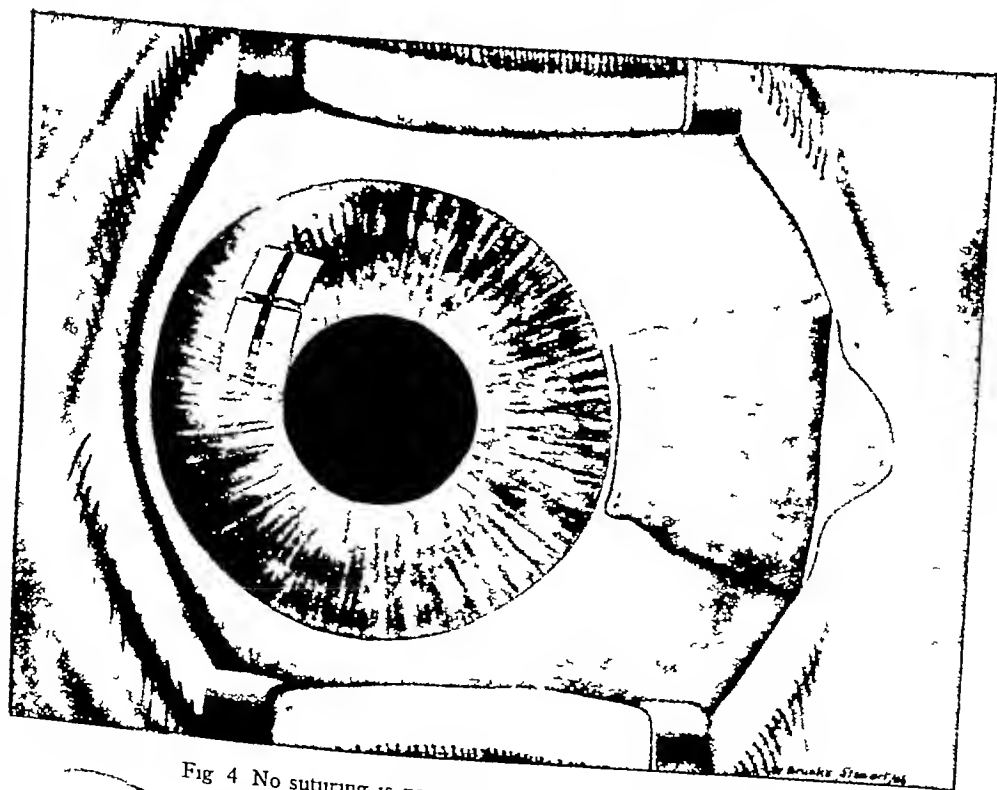


Fig 4 No suturing is necessary Excess oil is expressed

course. Whatever procedure is adopted for the flattening of the growth, the head should always be removed. Not that the iodized oil might not accomplish the head's flattening in time, yet it is more gratifying not to have to wait.

Iodized oil is nonirritating when instilled into the eye, it is also nonirritating when injected into the conjunctiva. However, to be able to insert the needle that carries the oil, the conjunctiva should be anesthetized. The iodized oil—although a product of an iodine activity or the unsaturated fatty acids—is an agent that is neither iodine nor a fatty acid. It is not caustic as the halogens are, nor as irritating as olive oil. It is bland and one is inclined to believe that it has an analgesic property. This viscid substance is usually warmed before being injected, so that it may flow more readily through the needle. The amount required to distend the pterygium is small. Once having accomplished the infiltration, a skiagraph may be obtained.

The skiagraphs (Fig 1-4) reveal that the oil spreads throughout the growth and becomes limited by the side walls and at the nasal end by the third lid. There are no opaque lines extending from the growth in any direction that would indicate channels.

Modus Operandi

An injection is made of iodized oil starting at about three millimeters in and three millimeters away from the corneoscleral margin. The injection of the iodized oil will produce a ballooning of the pterygium from the head down to its base, as shown in Fig 1. This clearly shows the pterygium in its full outline and with elevation as before mentioned.

A Wheeler knife is then introduced beneath the pterygium about three millimeters from the corneoscleral margin, cutting same in a see-saw movement from behind forward, as in Fig 2, thus severing the head from the body of the pterygium.

With a fixation forcep, the head can now be pulled or stripped from the cornea, from the limbus to the apex. If some fibers or tissue remain, it is well to curette the entire surface occupied by the head as in Fig 3.

The author has on different occasions permitted the head to remain undisturbed other than to make certain that the oil had infiltrated into its loose tissue to determine if it would flatten by the oil's action, and if delicate corneal tissue would suffer. It does not irritate the corneal tissue and the head flattens, although very slowly.

When the head of the pterygium is severed at the neck, little or no bleeding occurs and the distention offers assistance in permitting the extraction from the cornea. Only the epithelial covering offers resistance to the pulling and there is left a surface which is quite smooth. A knife should not be used, the desire being to leave the stroma of the cornea undisturbed preventing thereby a macula cornea.

After the neck has been severed and the head torn from the cornea, there is left purposely and without any desire to transplant the body or close the wound, the opening into the pterygium's body. Oil can be seen oozing from the opening and is to be encouraged by pressure upon the distended growth, for such procedure removes excess oil. There is a disadvantage in leaving excess oil remain, for it is slow to be absorbed and may even become fixed for a long period of time in the tissue.

The bandage is then applied and after a few days, is removed, the corneal wound is observed to be covered with epithelium and the body flattened.

It is not quite certain to the author that a particular iodized oil is required though he is partial to lipiodol. The objection to the iodized oil is the protracted period that is sometimes required for its absorption. This is easily overcome if excess oil is pressed from the growth. However, there can be no harm if it remains for it is ultimately to become absorbed. It is to be seen that breaking up and rubbing will hasten its absorption.

When adopting the use of the oil, it is more economical to make purchase in small ampule packages for there is greater certainty of the purity and that oxidation of its fatty acids have not come about. Fig 1-4 reveal the surgical procedure and the description of the plates readily carries the story.

SERUM THERAPY FOR PNEUMOCOCCUS TYPE I PNEUMONIA

JESSE G M BULLOWA, M.D, *New York City* and MURRAY J HANIGSBURG,
M.D, *Brooklyn*

If only the patients suffering from pneumonia due to pneumococcus Type I were treated with specific serum, there would be a very definite saving of illness and of lives. Despite convincing statistics and dramatic experiences demonstrating the efficacy of specific antipneumococcus serum therapy, many physicians still hesitate to employ it. The reasons for this attitude may be

- 1 The belief that determination of the type of pneumococcus responsible for the pneumonia is a complicated procedure and requires the aid of a very experienced bacteriologist.

- 2 The costliness of serum

- 3 The supposed great hazard of intravenous therapy

- 4 General ignorance of the details of administration of the serum

We wish to present concisely the method of serum treatment employed at Harlem Hospital and correct misunderstandings concerning serotherapy in pneumonia.

Pneumococcus typing and the determination of agglutinins in the blood may be performed without elaborate equipment. As demonstrated at the Atlantic City Convention of the A M A, and at the recent Graduate Fortnight of the New York Academy of Medicine the Neufeld swelling reaction and the test for the determination of the agglutinins may become office procedures performed as simply and as rapidly as a white blood cell count. For the efficient use of serum in pneumonia, these two laboratory procedures are required, one for prompt typing, the other for control of serum dosage

1 Neufeld swelling reaction for Pneumococcus Type I A tiny fleck of sputum is mixed on a glass slide with undiluted

These studies receive support in part from the Metropolitan Life Insurance Company and the Maurice Levin Fund.

From the Littauer Pneumonia Research Fund New York University College of Medicine and the Medical Service, Harlem Hospital (Department of Hospitals)

Pn I rabbit serum containing standard methylene blue solution (The dye stained rabbit serum is supplied in a convenient capillary tube) When the reaction is positive, there is visible under the oil immersion lens, swelling and a definite outline of the capsule. In pneumococci showing a negative reaction, the capsule will appear as a narrow halo without definite outline. The reaction is so specific that the diagnosis of the type may be made if a single swollen capsule is seen. A positive reaction usually occurs within a few minutes, though sometimes it may require twenty to thirty minutes to appear.

The great source of error is the use of too much sputum and too little typing serum. Seventy-five per cent of the cases which can be typed from the sputum may be typed directly by the Neufeld reaction.

2 Determination of agglutinins for pneumococcus Type I (as a marker for excess antibody in the patient's blood)

- (a) Prick patient's finger as for a blood count, and collect blood in a capillary tube, two and one half inches long

- (b) Permit blood to clot, to separate serum (this may require twenty minutes)

- (c) Mix a drop of the patient's serum with a drop of pure formalized suspension of pneumococci Type I (the latter may be purchased in capillary tubes for individual tests)

- (d) The formalized organisms of a different type are mixed with a drop of serum on the same slide as a control

- (e) Air dry the slide

- (f) Pass through dehemoglobinizing solution to dissolve any red blood cells present. (water, 94 c.c. glacial acetic acid, 1 c.c. formaldehyde, forty per cent, 5 c.c.)

- (g) Then stain for one minute with alkaline methylene blue or diluted carbol fuchsin

- (h) Blot and observe under oil immersion lens

The degree of agglutination is indicated as follows (See accompanying figure)

+ Strong agglutination (all organisms tightly clumped)

± Moderately strong agglutination (most organisms clumped but in loose aggregates)

≡ Slight agglutination (most organisms unclumped)

— No agglutination

The presence of agglutination is evidence of protective antibodies in the blood. If there is strong agglutination, ample protective antibodies have been supplied, and additional serum is useless.

An hour's practice may be sufficient for the acquisition of skill. Typing of sputum may be done by private hospitals or in state or municipal laboratories. For the agglutination tests, the capillaries of blood laboratory strapped to a wooden tongue blade.

Expense of Serum

The cost of serum depends on the amount of capsular substance to be neutralized and the number of organisms to be sensitized. The earlier treatment is instituted the less serum is required. There is no advantage in leisurely administration.

The primary mortality from pneumonia is far greater than from appendicitis. The complications are more frequent and severe. Hospitals do not deny patients surgical intervention because of expense. When administered early, the cost of serum is not greater than the usual cost of the operating room. Complications are more frequent without serum. Because the cost of surgical care may be averted if patients are treated on the first and second day, the treatment of pneumonia due to pneumococcus Type I without serum, is only an apparent economy. The value of the saved human lives in money may be computed with the help of Dublin's* "Money Value of a Man." The public hospital saves in overhead, nursing care, and oxygen. The individual is returned to work sooner at less expense.

New York City, through its Department of Health, New York State, the State of Massachusetts, the State of Connecticut, and the State of Maine

furnish serum without cost to those unable to purchase it.

Hazards of Intravenous Therapy

Serum reactions may be classified as (1) Immediate—which present themselves during the injection or within one half hour. They include dyspnea, cyanosis, low lumbar back pain, urticaria, restlessness, and severe coughing. These symptoms are usually controlled promptly by epinephrine, 0.5 cc.

(2) Chill reactions are less frequent with refined and concentrated serum, when they occur they may be shortened by inhalations of amyl nitrite. (3) Late (serum sickness) usually occurs from three to eight days after the first dose of serum. These include joint pains, itching, urticaria, fever, and generalized enlargement of lymph nodes.

Sudden anaphylactic death following the initial dose of serum (in patients with negative skin and ophthalmic serum tests) is extremely infrequent. Deaths attributed to serum following serum injections in the course of treatment are rare and occur in severely ill patients with overwhelming bacteremia. *A syringe containing epinephrine should always be on hand when serum is administered.*

Serum should never be administered without intradermal skin and conjunctival tests*. If in the course of the serum therapy there has been a lapse of three days or more in the administration of serum, the sensitivity tests should be repeated. Slightly positive skin tests without pseudopodia do not necessitate withholding serum. Positive reactions (large wheal with pseudods) require either (1) the use of rabbit serum if available and the patient is insensitive to it and (2) production of antianaphylaxis by administering epinephrine ten minims and a dose of $\frac{1}{4}$ cc of serum slowly and very well diluted eight to ten minutes later. Afterwards subsequent doses should be given in great dilution and very slowly, preceded by epinephrine.

The incidence of serum sickness with refined serum was thirteen per cent in our Type I cases. These reactions, for the most part, have not been severe and

*By Louis H. Dublin and Alfred J. Lotka, New York: Ronald Press, 1930.

*This refers to horse serum administration. A blood pressure test is used for rabbit serum.

are easily controlled. Skin manifestations—e.g., wheals and itching—are adequately relieved by subcutaneous injections of epinephrine hydrochloride gm 0.5 to 1, and headaches are relieved by acetylsalicylic acid grains V-X q three to four hours, for twenty-four hours.

Administration of Serum— Dosage and Frequency

Insufficient serum given at infrequent intervals is the chief cause of failure in the use of antipneumococcus serum.

Because of this many physicians have not achieved results comparable to those seen in Type I pneumonias treated with serum, in the large pneumonia clinics.

Different lots of serum may contain from 1,000 to 4,000 units of antibody for Type I per c.c. When administering a less concentrated serum the doses should be larger or more frequently given. We rarely employ more than forty c.c. of serum at one dose. Serum should be given slowly, no faster than one c.c. per minute.

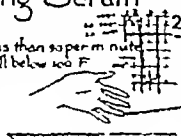
Control of Serum Dosage

Indications for stopping Serum

1 Sustained

Decrease of pulse rate — less than 90 per m. n.
 Reduction of temperature — fall below 100 F.

Time	Co. test
1 hr.	1 hr.

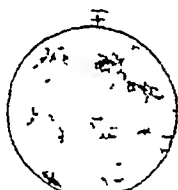


2 Agglutinins

(Absent in blood before first dose — present immediately afterwards)
After re-injection of (1) 3 hours after last dose and later.
Finger blood collected in capillary, mixed with homologous formalized bacterial emulsion (five 100 million organisms a fluid with formaldehyde 1%).
When bactericidal serum is given the mixing of agglutinin drops and more serum is needed like the standard emulsion, there being no reaction for pathogen agglutination and excretion and destruction of fellow.



No agglutination on
Allergens disc test



Some organisms clumped



Most organisms clumped



Tight agglutination

3 Francis test (confirmatory) Inject specific soluble substance (1:1000) Emulsion: saline or lyophilized fraction



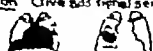
Saline

Francis +

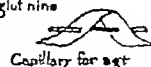
Test Saline — with SSS + flare 20
Control Saline — without SSS = no flare
Size of reaction test is in sq. cm. usually not accompanied by any reaction with 1

Persistent rapid pulse or elevated temperature indicate

1 Continued infection Give additional serum



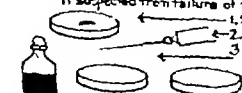
2 Complications may prevent appearance of agglutination Remove fluid from pleura pericardium or elsewhere



3 Incorrect type

a Laboratory or bedside error
b type from head discharge not from sputum
c Patient a carrier of type recovered all with different and traditional organisms

If suspected from failure of therapy Repeat



1. Sputum by direct specimen directly collected
2. Lung swabs
3. Blood culture

4 Serum sickness Elevated temperature and accelerated pulse may be side symptoms or with vague or transient evidence in skin joints or nodes. Skin becomes sensitive to horse serum (dilute on 1:10)

5 Invasion by additional type of pneumococcus or other organisms

Retype and do type exclusion test (Griffith)

The usual errors in therapy are (1) Size of the total and individual doses—We have found that the average early (1–3 days) non-bacteremic Type I case responds to a total of from 125,000 to 200,000 units of serum. A late case (3–6 days) may need 250,000 to 350,000 units. A bacteremic Type I case is given between 400,000 to 600,000 units of serum.

Except in the first two doses, the amount should be as large as possible, in order to terminate the case promptly. In bacteremic cases we frequently give forty c c at a dose. The unitage mentioned is that actually present. Trade packages may contain as much as fifty per cent more than is stated on the label. Manufacturers should state the unitage per c c. (2) Frequency of administration—Probably reasoning from their experience with meningococcus therapy, physicians frequently give ten to fifteen c c of serum at six to twelve hour intervals to acutely ill pneumonias. This accounts for their poor results. Recently we have been giving serum at two to three hour intervals, with excellent results.

A typical serum treated case due to *Pneumococcus* Type I pneumonia is managed as follows:

Immediately following the clinical diagnosis, the sputum is collected, and a blood culture is taken. If pneumococcus Type I is found by the Neufeld reaction, an intracutaneous skin and an ophthalmic test for sensitivity are performed. If negative after twenty minutes, the first dose of five c c of the serum is given intravenously but not more rapidly than at the rate of one c c per minute. During this time, the respiration is carefully watched and if there is dyspnea, marked weakness or complaint of sudden low lumbar pain, the needle is immediately withdrawn and five c c of epinephrine 1:1000 solution is given subcutaneously. If the first dose of serum causes no reaction, it is probable that subsequent doses will be well-tolerated.

An hour later a second dose is administered usually about fifteen c c. The following doses of serum from twenty to thirty c c in amount are then given at two to three hour intervals, depending on the size of the dose, the frequency of the injection, and the unitage of the serum. A total of 125,000–200,000 units can easily be given in a period of six to ten hours.

Five hours after the last dose of serum, the agglutinins in the blood are determined.

If negative, there may be either a bacteremia, a very virulent pneumococcus infection or a complication. The first two require additional serum. By this time the blood culture may have given information concerning bacteremia.

If, eight to twelve hours following the last dose of serum, the temperature drops to 100°F, and the pulse has not fallen, the serum should be continued unless there is plus agglutination. In that case serum is useless and another explanation for the temperature and pulse must be sought.

The first clinical indication of the patient's improvement is frequently subjective, usually there is the lowering of the pulse followed three to four hours later by a drop in the temperature, and still later a decrease in the respiratory rate. Even though the patient's pulse and temperature are high, if the agglutinins are plus or minus, serum is withheld and the patient is watched for the next eight to twelve hours for clinical improvement. If the agglutination becomes minus-plus, more serum is given. The test should be repeated at two to four hour intervals after the last agglutination determination, unless the temperature remains low.

Serum in Late Cases

The impression exists among physicians that Type I serum is of little value in late cases of pneumonia. (Cases due to pneumococcus Type I, after 4 days or later). This is not true. We have found that these cases may be terminated with serum and that the mortality is decreased. They frequently require more than 200,000 units of serum.

Bacteremia may appear early in the disease, though frequently it is not present until the third or fourth day. Bacteremias and complications may be prevented by sufficient serum given early in the disease.

Pneumonias of different etiology are distinct diseases, with distinctive habits and course. Nostrum vendors seek to perpetuate the outworn view that "pneumonia" is a complete and final diagnosis and urge physicians to use so-called general immunity stimulating substances (vaccines and immunogens and quinine derivatives). Those who have had the most experience know that these substances have no beneficial effect on the severe blood invaded cases, and that the others usually recover uninfluenced by

such treatment The effect of the newer para-aminosulphonamide dyes has not yet been evaluated in the pneumococcic pneumonias

The serum treatment of the pneumococcic pneumonias depends upon careful differentiation of the pneumococcus types Each serum has effect on its own type of pneumococcus and on no other No serum is potent against pneumococci

as a group Serums valent against two or three types of pneumococci have been manufactured but they are potent only against the types for which they have been prepared It is desirable to use sera of high unitage and those which do not produce chill reactions in patients

62 W 87 St

368 MILFORD St

MEDICAL RADIO BROADCASTS

The following broadcasts have been scheduled by the New York Tuberculosis and Health Assn under the auspices of the Medical Information Bureau of the New York Academy of Medicine

Saturday, April 17, 8 30 P.M., Station WNEW—*Speaker* Mr Frank Kiernan Director, New York Tuberculosis & Health Association *Subject* "The Goal is in Sight"

Tuesday, April 20, 1 00 P.M. Station WOR and network of the Mutual Broadcasting Co.—*Speaker* Dr Israel Weinstein, Assistant Director, Bureau of Health Education, New York City Department of Health *Subject* "Is Your Child Safe?"

Tuesday, April 20, 4 00 P.M. Station WNYC—*Speaker* Dr Abraham E. Jaffin, Chief of Hudson County Tuberculosis Clinics *Subject* "Advances in Treatment of Tuberculosis"

Tuesday, April 20, 2 30 P.M., Station WHN—*Speaker* Mr Bernard S. Coleman, Secretary, Tuberculosis Committee, New York Tuberculosis & Health Association *Subject* "Fashions in Tuberculosis Control"

Thursday, April 22, 4 30 P.M., Station WJZ and blue network of National Broadcasting Co.,—*Speaker* Dr Kendall Emerson, Managing Director of National Tuberculosis Association *Subject* "How Long Will It Take?"

Friday, April 23, 11 00 A.M., Station WNYC—*Speaker* Dr Peyton F. Anderson, Attending Physician, Sea View Hospital *Subject* "Modern Methods in Treating Tuberculosis"

Saturday, April 24, 8 30 P.M. Station WNEW—*Speaker* Dr William J. Ryan, Medical Director, Summit Park Sanatorium, Pomona, New York *Subject* "Modern Treatment of Tuberculosis"

Tuesday, April 27, 1 00 P.M. Station WOR and network of the Mutual Broadcasting Co.—*Speaker* Dr Foster Murray, Director of Tuberculosis Service, Kingston Avenue Hospital, Brooklyn *Subject* "Pulmonary Tuberculosis—Important Diagnostic Points"

Tuesday, April 27, 4 00 P.M., Station WNYC—*Speaker* Dr Maurice Kovnat, Physician in Charge, Richmond Tuberculosis Clinic, St George, Staten Island *Subject* "Heed the Tired Signals in Tuberculosis"

Tuesday, April 27, 2 30 P.M., Station WHN—*Speaker* Miss Amelia Grant, Director, Bureau of Nursing New York City Department of Health *Subject* "The Child in a Tuberculosis Family"

Friday, April 30, 11 00 P.M., Station WNYC—*Speaker* Miss Mabel E. Grover, Supervisor, Henry Office, Henry Street Visiting Nurse Service *Subject* "The Public Health Nurse in a Tuberculosis Program"

DO YOU KNOW?

Accident statistics show that the most dangerous place in an automobile is the seat beside the driver Divorce Court records prove it to be a dangerous place, too

Do not laugh at children's fears, for this only makes them seem ridiculous, it does not help them to understand A little girl afraid of her shadow was taught to inspect it while in her father's arms Children need friendship and explanation, to rob them of their fears, impatience or condemnation will increase the trouble besides developing resentment.

Ultraviolet rays help form Vitamin D and exert a beneficial effect on the health

Sunshine is best, but the quartz lamp is a good substitute, never equalling sunshine itself

Drafts do not cause colds Colds are definitely caused by infection from another person Disease does not float about in drafts Bacteria in minute droplets of moisture issuing from human beings in crowded places can infect persons within five feet or more during conversation, or when coughing or sneezing

—From a press bulletin issued by the Bureau of Public Relations of the Medical Society of the State of New York

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EDITORIALS

American Medicine—"Expert Testimony Out of Court"

The American Foundation Studies in Government published on April 4 its report of its medical inquiry. We have previously commented on the character of this report. We stressed the fact that the Foundation had no preconceived idea or scheme to bolster up for which it collected the data and opinions which constitute the report. No idea contained in this report is the handiwork of any layman, except the putting together, the classification of the information, and the necessary editorship to accomplish these ends.

The report actually has been written by the profession itself. It is not written by the officially organized profession. No vote was taken on the views expressed. No one argued with anyone else and evolved an opinion which represented compromise in judgments. Many who hold official position in organized medicine gave their own personal, individual views. Likewise both general practitioner and specialist find full representation. The cross-section of professional opinions show evidence of coming from all sections of medicine—from medical teachers, deans of medical schools, laboratory and research workers, group practitioners, hospital administra-

tors as well as public health officials. Over 270 contributors are presented which came from the State of New York alone, to say nothing of the thousands from the rest of the country. The list of New York contributors will be found on page 831 of this JOURNAL. In other words, this is the first, and as far as we know, the only report written by the profession on pending medical questions which deeply concern not only the profession itself, but also the public.

Somewhat near 5,000 letters have been classified, analyzed, and their ideas correlated and presented—a very fair "sampling" of the predominant medical opinion of the country. The report is sponsored by 134 medical men associated in a Medical Advisory Committee who joined with the American Foundation in presenting the report to the public. The men who constitute the Medical Advisory Committee assume no responsibility either individually or collectively for any of the ideas quoted or presented. The Advisory Committee, on the other hand, does endorse the report as a fair summary of the views of those of their colleagues who replied to the Foundation's inquiry. They endorse the integrity of the work, and commend the

report to the study and consideration of medical men generally and the public particularly

Among the Medical Advisory Committee are the following New York men: Louis Casamajor, Russell L. Cecil, Walter T. Dannreuther, Cary Eggleston, Smith Ely Jelliffe, Samuel J. Kopetzky, William S. McCann, James H. Wyckoff, James A. Miller, Walter L. Niles, and Nathan B. Van Etten. The list of contributors reads like a medical "Who's Who."

We welcome the report and bespeak for it a considered judgment by organized medicine.

Dangerous Privilege

The Feld-Milmoe bill extends the privileges of osteopaths beyond the demands of osteopathic theory or the qualifications of osteopathic training. If the distinctions between medicine and osteopathy are to be broken down by an extension of osteopathic prerogatives, there should be a frank acknowledgment of the therapeutic limitations of osteopathy.

The osteopath, no more than any one else, can expect to have his cake and eat it. If osteopathy contains within itself the fundamental principle of healing, as its disciples claim, they should be satisfied with their system and not seek to employ alien methods. If, on the other hand, they acknowledge the superiority of medical catholicism, they should forswear narrow sectarianism and take the regular medical course.

There is an intellectual dishonesty about the whole method of the Feld-Milmoe bill. Its proponents defend it on the ground that osteopathic schools now approximate the medical course and their graduates will be required to take the same examination as physicians. They neglect to state that in order to qualify for the state board examinations physicians, unlike osteopaths, must have studied pharmacology and materia medica.

After graduation, moreover, the physi-

cian usually serves an internship, where he learns to perform surgery and employ drugs under strict supervision. What similar protection against inexperience do the osteopaths offer the public to justify their demands? Where can they acquire practical experience in the numerous surgical procedures, the delicate therapeutic technics, the Feld-Milmoe bill would permit them?

Suppose the osteopathic schools have stiffened their courses and future candidates for osteopathic license will have to pass the same examinations as physicians! Fully fifty per cent of the osteopaths in practice today were graduated from schools which referred to drugs only to deprecate them and which disputed the necessity or desirability of surgery. This fifty per cent, with no further preparation, without any pretense of adequate training, would be authorized by the Feld-Milmoe bill to perform a wide range of surgical operations, to employ powerful drugs, and to administer anesthetics that are highly dangerous in inexperienced hands.

In no field is unearned power more hazardous than healing. The prerogatives conferred on osteopaths by the Feld-Milmoe bill offer a serious threat to the public health by placing potentially dangerous instruments in the hands of a group unqualified by training or experience to use them safely.

Help Save the Lien Bill

The attack launched on the physicians' and nurses' lien bill by various bar associations shows more regard for technicalities than for justice. Not one of the hostile resolutions has been successful in impugning the purpose of the Kleinfeld-Fite Act or the fairness of its basic provision.

Under existing laws the physician who aids accident victims has little chance of recovering the value of his services. During the emergent period, financial questions remain in the background. Once the emergency has passed, it fre-

quently develops that the patient is unable or unwilling to pay for the care he has received

When an award is made in accident cases, the intent is to repay the victim for the medical expense he has sustained, among other damages. There is however nothing to enforce this purpose. All too often the recipient considers the grant a sort of bonus, to be used for his own enjoyment or profit without regard for the moral claims upon it. By the time a physician or nurse secures legal affirmation of his rights, the money may be spent or transferred to a third party, to prevent execution of the judgment.

A lien bill enacted last year protects the hospital in such cases. The Kleinfeld-Fite Act extends this protection to the physicians and nurses of the state, who are equally entitled to it.

All of the technicalities on which the bar associations base their opposition can be obviated by the correction of loose phraseology or the addition of clarifying provisions. None of them is important enough to warrant rejection of a basically sound bill. The physicians and nurses of the state are entitled to this safeguard and are in need of it. Let them make themselves heard in defense of a measure which guarantees them at least a measure of justice.

American Foundation Report

To any one who reads the voluminous report of the American Foundation on its medical inquiry, it becomes apparent at once that the solutions for the problems inherent in the easy availability and delivery of medical care to the American people, as well as the sustained maintenance of high general health standards (which of course must include extension of preventive medicine) cannot be obtained by any easily devised short-cuts.

It is also evident that organized medicine must revise a few of its hitherto strongly held conceptions. A clearer comprehension of the implications of the

doctor-patient relationship seems in order. The integration of the general practitioner with preventive palliatives seems warranted. The concept "that adequate medical care is, and always has been available to all the American people" needs further study and elucidation. Is it not true that we, as physicians have too little personal contact with the "medically indigent" because we usually are not wont to meet them individually as our patients, but rather meet them as a class-group in our clinics and wards, because financial barriers hinder them from reaching us personally? Does doctor-patient relationship come before, or only after we meet them in our wards and clinics? They too need and want the factors in medicine which we as individual physicians could give them, to handle an incipient illness and prevent its progression toward serious consequences. It is in just such instances, that the availability of adequate medical care is hampered and hindered by financial barriers, and perhaps this is gradually becoming more important than the actual restoration to health of those who are sick. Here then, is another problem—how to provide high quality, easily available medical care to the medically indigent. But why stress details now?

Elsewhere in this issue will be found (page 821) an abstract of the report. From the mass of evidence presented, there emerges an emphasis, as it were, *on ten outstanding principles*. To read these ten principles and comprehend their significant import is to sense the high quality of the contribution made by this report. We believe that it will evoke much discussion and provoke medical thought and perhaps action to the end that a start at least will be made toward solving some of the complexing questions of the instant problems.

We, of organized medicine, are now faced with an obligation to the profession as well as a duty to the public. We shall have to alter our general attitude. We cannot continue our hitherto "passive" position. We were fully justified to

remain either "passive" or "in opposition" when the *only solution* tendered us was one comprising *compulsory health insurance*. It must be apparent even to the casual reader of this report that the problem is much larger, has greater implications, and must reach elements and factors in our population not even touched upon by the most ambitious compulsory health insurance scheme ever devised. Compulsory health insurance only touches upon the economic barrier separating the lower wage-earning groups from medical aid. It does nothing for the actually indigent, nor does it encompass any solution to the medical problems inherent to the situation of the rural and farming communities. It is totally unconcerned with the *quality* of medical care, and the many facets of the general medical problems which the report illuminates are left entirely unapproached to say nothing of even making a crude attempt to solve them. The entire question of preventive medicine is not even envisaged in compulsory health insurance schemes.

As a unit of organized medicine there is another consideration to which we must give thought. This is the political implication of the present situation in Washington. Were we, unfortunately, to have compulsory health insurance foisted upon us at this time, while the other elements and factors of the larger and more widespread questions remain unprovided for, unanswered and unplanned for—this very much larger field—revealed by the report as demanding serious consideration—would remain for a long time uncorrected, without intelligent planning, and without even an honest effort at seeking solutions for its problems. This would happen because there would result a complete cessation of all further endeavors to meet the medical issues of larger and more significant import. *Compulsory health insurance must be stopped while we, the organized profession, take the necessary positive steps to meet squarely these greater issues.* We know that all further efforts aiming at health standards, and the delivery of a

high quality of medical care would cease because legislators, having enacted the health insurance laws with their inevitable tax burdens, would conceive that they had "done enough for health." Government instead of setting out to study and evolve solutions to the greater medical questions raised by this report, would be too busy and too concerned in establishing the necessary bureaucracy to make compulsory health insurance work, in the face of a recalcitrant medical profession only half-heartedly assisting to establish a scheme of delivering medical care which it knows beforehand will reduce its quality, and will actually sell the population a "gold brick" for the money paid in direct, indirect and hidden taxes. And what about the medical institutions which produce doctors—the laboratories, the wards, and the operating rooms—the workshops of the profession—their financial status rendered progressively more precarious because of the failure of private endowments and awards to support them, would find existence increasingly difficult. There is a very paramount issue therefore facing us now. We must perforce take a positive stand. The report of the American Foundation, spreads opinions before us on the many complexities of the problem. From the study of these opinions we must have proposals ready which must encompass the whole field now opened to our scrutiny. When we have further studied this report, let us formulate a proposal upon which government, the profession, and the enlightened public can unite.

As we study this report further it becomes evident that the health of the community, as a whole, is a more paramount issue of the state than it is a problem of physicians whose first concern is the individual. Organized medicine can determine standards, and decide qualifying conditions under which the best of medical care may be obtained. It naturally must be the concern of the State to see that this high quality of medical service is easily obtainable by the citizenry. We have consistently held that the indigent are

properly the charge and wards of the local communities. This report repeats this stress. We have contended that the medical care to these must necessarily be a charge against funds raised by taxes, and the physician treating these indigents be paid so that the doctor serving the indigents is not twice taxed while his lay neighbor pays only one tax for the same purpose.

Of the "medical indigent" we have already spoken above. They need education to teach them *how to reach the doctor* when financial barriers seem to bar the way. This too is a local community problem more than one confronting nationally organized medical units. The community must establish agencies to arrange the finances necessary to pay the charges incurred by the "medically indigent" to cover the physician's services and the hospital costs. Perhaps some variation of the so-called DeSanctis plan holds the answer to this problem. This entails the establishment of a locally supervised bureau to determine what these medically indigent shall pay toward the discharge of their obligation, and yet it seems to us, that the local community too must contribute toward the delivery of high quality medical care to this underprivileged class-group. The rate of fees which the physician shall charge, to make the best services available to this group is another problem facing organized medicine. In the cooperative era upon which we are entering, such planning is not only in proper order but urgently necessary.

Since taxation in the present era is depleting private philanthropy, state aid through Federal grants will soon become necessary if we are to maintain and sustain many existing fine medical institutions including hospitals and laboratories.

If we desire to meet the instant problem presented by the practitioners in rural and outlying areas, and in sparsely settled communities, laboratory and consultative services must be made available to the country general practitioner. Can

such laboratories and medical consultative service exist without governmental aid?

Finally, it is very evident that a large and more active evolutionary development of preventive medicine is impending. We would welcome this were we to see it worked out so that the private practitioner would actually become the health official who would deliver the palliatives which medical science has won for the benefit of better health for the community. In the evolution of this larger health program—a program which must envisage sanitation and hygiene and reduce health hazards in field, mine, factory, school, store, and home—it would seem almost axiomatic that there must be established a *Federal Department of Health*, under a competent physician, separate and apart from all other welfare agencies. This item is now pending in our national legislature.

Finally we conclude from our perusal of the report, as the problems are touched upon by our leading medical men, that the private practice of medicine shall continue, and that it is feasible, possible, and workable to integrate this private practice of medicine with the ideas and principles here but briefly sketched.

One Phase of Continence

The fate of the millions of spermatazoa which are produced in the testes of a continent male has been a matter for conjecture. Spontaneous ejaculation accounts for the release of some but the means whereby the seminal vesicles and the vas deferens guard against overstorage remained in the realm of theory.

Based upon studies made with lipiodol injected into the seminal vesicles by Wilhelm,¹ he and Selgmann² examined specimens of urine obtained from abstinent men and were able to demonstrate

¹ Wilhelm, S. F. Observations on the emptying of the vasa deferentia and seminal vesicles, *Jour. Urol.*, 34: 284, 1935.

² Idem. Spermatazoa in Urine, *Amer. Jour. Surg.*, 35: 572, 1937.

the presence of spermatazoa in approximately three-quarters of the specimens taken at frequent intervals. These findings were present independent of an ejaculation having taken place. It proves definitely Oslund's¹ belief that the seminiferous tract empties itself by means of a slow, constant flow into the urethra in addition to mass emission.

From these observations it would seem as if there is no appreciable amount of storage of spermatazoa in the genital tract and that continence *per se* does not lead to atrophic changes in the testes due to disuse.

The Conference on Fever Therapy

The use of induced fever as a therapeutic agent has made remarkable strides since Wagner-Jauregg first employed it in the treatment of general paralysis of the insane. At the First International Conference on Fever Therapy held recently in New York City in commemoration of his eightieth birthday, a galaxy of physicians, physicists, and physiologists famed the world over, presented data on all phases of fever therapy. Among the diseases benefited by artificial fever are rheumatic fever, arthritis, chorea, certain ophthalmological diseases, neurosyphilis, and gonorrheal infections. The results obtained in these conditions warrant further investigation into other fields and the Conference has furnished this stimulus.

It is a far cry from the earlier means of inducing fever by vaccines and malaria without accurate control, to the present exact method furnished by the short waves. In the development of this type of therapy, considerable credit must be given to the physicists who collaborated with the medical profession in the perfection of the mechanical devices utilized in its administration. The physician, however, was and is the only one capable of estimating its value, indicating its uses, and evaluating the effects.

¹ Oslund, R. M. The physiology of the male reproductive system. *J. A. M. A.* 90 829 1928

Progress in Medicine through Photography in Rochester

We have repeatedly called attention to the unusual features which will mark the one hundred and thirty-first annual meeting of our State Society this year in Rochester. We cannot nevertheless forego adding another note calling attention to a program of events arranged by Dr. Leo Simpson. This will constitute a public forum on the "Progress of the Art and Science of Medicine through Photography" and will take place in the Eastman Theatre. It is a cooperative enterprise between the State Society, the University of Rochester, and the Eastman Kodak Company. Additionally the Eastman School of Music is contributing the services of Messrs. Leo Godowsky and Leopold Mannes, who are concert musicians of high merit and general recognition. Both these artists are also inventors of the Kodachrome process of color photography.

On the purely scientific side of this program there will be Dr. Arthur Bedell of Albany with color photography of the eye, Dr. Warren H. Lewis of the Carnegie Institute, who will show movie photography of cell growth, including also "stills" of various diseases such as leprosy, small-pox, and other skin irritations. Under the direction of the Strong Memorial Hospital, there will be shown a film called "Birth of Anesthesia." From the Department of Parasitology, Professor Oliver R. McCoy will give the life history of the Anopheles, a movie film, and Dr. James M. Flynn, Vice-Speaker of the State Society, will discuss normal and abnormal roentgenological findings.

Kodachrome pictures depicting the circulation of the blood, and a moving picture of the bacteria of the mouth, also moving pictures of types of pneumonia, sputum and the use of sera in pneumonia will be shown.

There is also to be shown a moving picture on milk pasteurization, and a sound-movie illustrating the heart-beat so that those in the audience will be en-

abled to hear what the doctor hears through his stethoscope

There are many to whom visualization leaves a deeper and sharper memory-picture than when hearing about it. To all, physicians and public alike, this program presents entertainment and education. You cannot afford to miss the sessions of the annual meeting this year at Rochester, from May 24 to 27.

The House of Delegates

As the season approaches when the delegates of our State Society again convene, it must be apparent to all who think at all upon our organization, that grave responsibilities lie here. The constitution of this governing body of medical legislators is truly democratic and representative. Their officers and officials have carried out the sundry mandates imposed on them, and now come back again to give an account of their stewardship. We hear less and less of the "medical trust" and the "dictatorship" of organized medicine. Likewise we see less and less of political log-rolling and political jockeying from the purely personal standpoint. Committees of major importance have carried on a great and heavy burden. The Committee on Economics, under the able leadership of Dr. Frederic Elliott who has almost made of his committee-ship a life-work, the fine and far-reaching work of the Committee on Public Health and Medical Education, under the guidance of Dr. Thomas P. Farmer, Dr. Augustus J. Hambrook's excellent handling of the Committee of Public Relations, and the important work and strategy by which the Committee on Legislative Work mastered and held the Society's viewpoint before our state legislators, and the masterly manner in which its chairman, Dr. Homer L. Nelms, interpreted state legislative trends to us, are but a few important items in pointing the tale.

The work of the newer Committee on Trends under Dr. Terry M. Townsend's

directing genius, and the work of Mr. Dwight Anderson are familiar enough because of the releases which come to us with singular regularity. Of Dr. William A. Groat's work we shall see visual evidence at the meeting.

In view of the smoothness, harmony, and team-work of Dr. Winslow's administration forces, it is hoped that the delegates will assemble in like harmony and accept the obligations which their professional colleagues place upon them. Let us have all topics fully and freely discussed, with little heat and much light, and let us face the future together, a fully united professional unit, not one of the weakest, but one of the strongest links in the nationwide chain constituting organized medicine.

Resolution for Action by the House of Delegates

Because a preview of the amount of work which confronts the next meeting of the House of Delegates shows that every effort must be made to conserve the delegates' time, so that full and considered deliberations may be accorded every topic brought before its sessions, the Executive Committee, at its regular March meeting, passed a resolution presented by the Speaker to facilitate the consideration of business.

Stripped of its parliamentary verbiage, the intent of the resolution is, that resolutions originating officially in county societies may be sent to the office of the Secretary and be assigned to reference committees by the Speaker before the House meets. Such reference committees, according to our present By-Laws are appointed one month prior to the meeting of the House of Delegates. The reference committees, which receive such resolutions prior to the assembly of the House, will meet on the Sunday prior to the meeting and thus will be able to study such topics and projects, and be ready to report promptly after the House convenes. Of course, the resolutions must be presented *pro forma* at the open-

ing session and then officially referred to make the matters legal and parliamentary. In other words, a procedure has been worked out, this year, to facilitate the transaction of business, in regard to resolutions emanating officially from component county societies. This is exactly analogous to what has heretofore been done in regard to the official reports of our officers and standing committees.

If your county society has any official resolutions to present, send them as soon as convenient to the Secretary.

CURRENT COMMENT

"IT IS AND WILL BE A SAD DAY for the intellectual life of a nation and society when creative and logical thinking in an unhampered atmosphere is destroyed. Equally sad will be the day when we do not listen to the tempering warning from those who are trying to 'get the job done.' Blending of the two is the deterrent to dogmatic slavery. * * * We can prove but one thing, that our problem will be solved by recognizing the absolute dependence of academic thinking and practical application upon one another. The closer we can draw these together in mutual understanding the sooner a real social democracy will flower."—A statement of opinion voiced by H. L. Wells, writing in *Commerce*, of recent issue.

"* * * OUR OPPORTUNITIES in organized medicine are obvious. One would scarcely qualify as a major prophet on the basis of the prediction that political effort will be made to extend the activities of government in the field of medicine. Medical men will do well to study the implications of the social theories which are being so freely aired today. * * * Politicians who perform the actual work of legislation frequently are not acquainted with either social or medical science and are not inclined to heed expert advice unsupported by political power. They are adepts at adjusting conflicting forces to make a temporary structure. In the important social changes which are impending we ourselves must see to it that the physician is not relegated to the role of the 'forgotten man' * * *"—From the Presidential Address delivered at the meeting of the Alumni Association of the Mayo Foundation by Dr. Stanley J. Seeger.

"* * * THE FIGHT WILL LAST LONG and will require both courage and patience. It must be a matter of personal responsibility undertaken willingly in memory of those who have suffered and for the protection of hundreds of thousands who need no longer do so. No one is so busy that he can afford to neglect his part in the united effort to check the silent inroads of a cruel killer. * * *"—Editorial comment on the National Cancer Campaign in the March issue of *Illinois Medical Journal*.

"REBEL SPANISH TROOPS who captured a hospital from Loyalists last month were surprised to find a Russian, his abdomen laid open, stretched out on an operating table. Apparently the surgeon had fled when bullets whined too close. Rebel operators finished the job, removing a sizable shell fragment."—The irony of war commented upon by *Medical Economics* of March 1937.

"THE JOB OF STAMPING OUT SYPHILIS will pay for itself and pay dividends. Our economic stresses are difficult enough without the extra load of a syphilis-ridden population. Syphilis cannot be downed in a year, or a decade, but we have already dragged the specter of the spiral death into the light, seen it to be conquerable and it will be strange indeed if we do not prevail against it."—Thomas Parran, M.D., writing in the April 1937 issue of *Readers Digest*, and stating that "Syphilis Can Be Stamped Out."

MEDICAL RADIO BROADCASTS

The Medical Information Bureau of the New York Academy of Medicine announces the following broadcast from Station WABC and the Columbia broadcasting system network.

Wednesday, April 21, 4 45 P.M.—
Speaker Dr. Robert L. Levy, Director of Cardiac Dept., Columbia Presbyterian Medical Center. *Subject* "The Symptoms of Heart Disease."

Annual Reports

MEDICAL SOCIETY OF THE STATE OF NEW YORK

1936-37

REPORT OF PRESIDENT

To the House of Delegates, Gentlemen

In conformance with established custom, as President of your Society, I hereby tender to you my annual report for the year 1936-7

General Activities of the Society

Developments of the past year have served to emphasize the changing order in medical society affairs throughout this country. The Autumn of 1936 saw this nation again locked in the throes of a national election. This election was especially significant because it saw the proponents of marked social changes in our fundamental system of government engaged in a struggle with their opponents. Probably never before has a national election presented issues so vital to the profession of medicine. Coincidentally there developed upon the profession the duty of placing before the doctor and before the public, the position which medicine should take with regard to the questions at issue. In the days gone by it was enough for the doctors to meet for the discussion of their problems distinct and separate from any other group. They were strictly a deliberative assembly and enough had been done when a resolution had been passed and every one went home to forget about it. In these days, however, with mass movements representative of various interests and causes, it is incumbent on medical societies to be organized for the active carrying out of the results of their deliberations. Part of this activity must be the persuasion of other individuals and groups, to our way of thinking, if the standards which have been continued throughout the years are to be maintained.

The officers and committees of your

society have actively participated in the discussions of the problems at issue, in the field of organized medicine and we have faithfully endeavored to set before the public, in spoken and in written word, the methods of maintaining professional ideals and in advancing the interests of the public and the doctor.

The result of the recent national election is well-known and can never be recalled. Whatever the ultimate settlement of the issues involved on this occasion may be, it is hoped that, as a result of the activities of the representatives of your society, the American public has an increased knowledge of and respect for the principles which underlie the practice of our profession.

District Branches

Your President attended all but two of the district branch meetings and in all instances an increased interest in the proceedings of these branches of the parent organization was experienced. Beyond question, the sentiment of our membership is strongly in favor of the preservation of the District Branch meetings together with an effort to make these meetings an increased source of scientific inspiration to the practicing physician.

County Societies

Your President has been particularly interested in the progress of the component county medical societies throughout the state and has made an effort to attend their meetings on every possible occasion. It becomes increasingly apparent that, everywhere throughout the field of medicine in America, the County Society is the most vitally important unit of that great structure which we recog-

nize as ORGANIZED MEDICINE. Your officers and your committees have vigorously directed their efforts toward building up these county societies during the past year throughout the state. We feel that the annual meeting of the secretaries of these societies is a valuable agency in advancing their work. We commend the efforts of the county society officers and bespeak their further constructive efforts in the conduct of their organizations.

Executive Committee

This year, for the first time, the Executive Committee has been favored by the attendance at its meetings of the members of the Board of Trustees and also by the attendance of the Chairman of the standing committees. These representatives have been invited to express their views on all questions involving the procedures of their particular subdivisions of the executive structure. They were, however, without vote. We feel that this has been a valuable method of procedure because at each meeting it gave the trustees opportunity to correctly evaluate the needs of the society in the way of budgetary appropriation. Furthermore, it gave an opportunity for the committee chairman to gain direct knowledge as to the desires of the Executive Committee in advancing the work of the society. A further notable advantage of this plan has been the fact that it furnished the opportunity to allocate the work of the different committees and to prevent the overlapping of committee work which has been apparent in the past. Publication of the proceedings of the Executive Committee in the JOURNAL has provided a satisfactory method of carrying promptly and directly to the membership an outline of the work being carried on by their representatives together with an indication of the stand taken by the Executive Committee on important current problems. This plan has also served to cut down the number of committee meetings.

Standing Committees

Scientific Work Under the capable leadership of Dr. William A. Groat, this

committee has carried on a year of steady, conscientious work in arranging the program for the oncoming annual meeting. As a result of this activity the program for this meeting will bring to our membership opportunities for improving their professional equipment hitherto not experienced.

Public Relations Dr. Hambrook and his committee have interested themselves in such problems as the examination of school children and the problem of the care of the deaf and hard of hearing of the State.

Economics Under the Chairmanship of Dr. Frederic E. Elliott, this committee during the past year has endeavored to carry the active discussion of economic matters to the local County Society meetings.

Among other issues prudently considered by this very active committee has been the problem of the possibility of the adoption within this state and by this society of some plan of Medical Expense Indemnity Insurance. While up to this time no plan has been found by the Executive Committee to be ideal or completely applicable to our needs, nevertheless the thoughtful consideration by this committee of the problems involved has placed our society in an advantageous position with regard to future action on this issue.

Public Health and Medical Education This committee, of which Dr. Thomas P. Farmer is Chairman, has promoted the health and well-being of the citizens of the State by the conduct of the following sub-divisions of its work:

- 1 Courses in Graduate Education
- 2 Pneumonia Control
- 3 Cancer control and investigation
- 4 Syphilis
- 5 Maternal Welfare
- 6 Child Hygiene
- 7 Nursing Education

These activities have increased our professional capacities and have also increased the popular acceptance of our capacities. Your attention is hereby called to the growing importance in the field of medicine of the subject of Cancer Control and Maternal Welfare. Leadership in the investigation and control of

these subjects is logically the responsibility of our society and the hope is hereby expressed that, profiting by the successful handling of these subjects in the past, our society, through its appropriate committees, will reach new heights of leadership in the future

Committee on Legislation Under the Chairmanship of Dr Homer L Nelms About six thousand bills are introduced into our State Legislature each year It is the duty of the Legislative Committee to scan each of these bills in order to protect the public against the passage of legislation providing for inferior medical care and so far as possible to further legislation favorable to the proper development of matters of public health The outstanding activities of this committee during the current year are as follows

- 1 Study of the Cancer situation in the State

- 2 Conferences with the State Board of Regents providing for rulings on the examination of foreign physicians

- 3 The Medical Lien Bill

- 4 An attempt at passage of amendment to the law so as to discontinue the licensure of physio-therapy technicians

- 5 Efforts to prevent medical advertising by licensed physicians who are not members of the county society

Committee on Arrangements Under the leadership of Dr Leo F Simpson, preparation of the plans for the annual meeting of the Society are rapidly being completed and we confidently believe that the 1937 meeting of the Society will be one of the most satisfactory ever held

Special Committees

Committee on the Revision and Reconstitution of By-Laws (Dr O W H Mitchell, Chairman) At the Annual Meeting of the House of Delegates in 1936 a measure was passed providing for the appointment of this committee This mandate of the society placed an imposing burden of responsibility upon the personnel of this committee However, in accepting this appointment for service, the members of this committee have demonstrated the very highest ideals of devotion to the interests of the society throughout this year of arduous effort As a result of their unremitting efforts

throughout the year, they currently present to the society a well thought out plan for simplifying and modernizing the rules of conduct of this society I commend them for their sincerity and their earnest efforts and bespeak your prudent consideration of their suggested plans

Bureau of Public Relations In the year 1935, during the administration of Dr A J Bedell, having for its chairman, Dr J F Rooney, this society established the Bureau of Public Relations This Bureau was placed under the charge of the Committee on Trends and since its inception has had as its director, Mr Dwight Anderson The purpose of this Bureau was to interpret the trend of public opinion on medical matters It inaugurated a policy of constructively placing before both the members of the State Society and the public, the facts in connection with various subjects affecting organized medicine Under the leadership of its present Chairman, Dr Terry M Townsend, and with the able support of its Director, Mr Dwight Anderson, this committee has completed a year of successful work This committee has numbered among its members the chairman of each of the standing committees and this construction of the committee has been a powerful element in the advancement of the work of this bureau and the society as a whole It has the following advantages

- 1 It has served as a means for providing the director of the Bureau with an exact knowledge of the current work of the standing committees

- 2 It has furnished an opportunity for each chairman to clearly outline his function

- 3 It has prevented overlapping of committee work

- 4 It has given opportunity for each chairman to keep abreast of the work of the Bureau

- 5 It has materially cut down the number of committee meetings and has thus been an economic asset to the society

Profiting from its inception through the leadership of Dr Rooney, Dr Townsend, and Mr Anderson, this committee has risen rapidly in its value and service to the society It is now able to place before an interested public the facts in-

volving the consideration of the medical profession. Furthermore, this Bureau furnished opportunity for a uniform expression of opinion among those who publicly speak for the society and to a large extent it eliminates the lack of conformity previously existing among the expressed views of the leaders of our society. Naturally, the conduct of such a bureau involves considerable expenditure and if our members expect to continue to reap the benefit of such a department of our organization they should expect to provide adequate financial support. Recently the formation of a speaker's bureau has been completed. This is another favorable asset to the society. From all over America and from both laymen and professional men I have had expressions of commendation for the work this bureau is doing in advancing the interest of organized medicine and I know of no other similar organization in existence of equal value.

Committee on Hospital Relations. A special committee of this society has held several conferences with a similar committee representing the State Hospital Association. Considerable advancement has been made toward the solution of the mutual problems of these two organizations and it is hoped that in the near future still further progress will be made.

Committee on Workmen's Compensation Procedure. This committee has consolidated the plans previously developed and has ably represented the society in the deliberations involving the other agencies interested in this problem, namely, Labor, the Employer, and the Insurance Carrier.

Finances

In common with other organizations and under the direction of our Treasurer, Dr. Kosmak, this society shows signs of steady recovery from the effects of the recent economic adversity. Dr. Kosmak's report shows our financial status to be sound.

Reading the JOURNAL since the changes in the methods of the publication of the JOURNAL were inaugurated in 1934, this publication has steadily improved in character. Two objectives were sought

and both have been reached, viz, the cost of production has been reduced and professional interest in this publication has increased. Now attracting deserved attention from the profession both within and without the State, it is hoped that this publication will continue to still further reflect the scientific advancement of our society. The editorial department of the JOURNAL has abandoned its former attitude of "passive resistance." It has adopted a positive attitude in its expression of the position of this Society on medical matters. I believe the time has come when everybody will accept a positive program in this respect if organized medicine will have the courage to evolve one.

Recommendation

Recently a bill was introduced in the Legislature of our state providing for an increase of one hundred beds in the State Institute of Malignant Diseases in Buffalo and also for the construction of two hospitals for the investigation and treatment of cancer. Naturally, our Society was approached with regard to their stand on this bill. Unfortunately, we did not have at our disposal adequate facts relative to this subject and therefore our ability to give constructive advice was greatly hampered. Other similar projects have further demonstrated their need along this line. Some of these projects are

- Hospital Insurance
- Tuberculosis Program
- Care of Crippled Children
- Administration of the TERA and Welfare Laws
- Nursing Problem

It is therefore my recommendation that this society take steps to place in the hands of one of our present committees or in the hands of some special Committee, the responsibility of, so far as is possible, looking ahead in matters of Public Health, thereby accumulating the necessary facts and being able to better cooperate with other agencies working toward the development of Public Health.

In closing, it now becomes my pleasant responsibility to express to the members of this Society, my appreciation of the

loyal support I have enjoyed from my Associates within the Society during the past year. No serious contention has arisen within our ranks. From each member of the Society, each committee member, each chairman and each officer I have received that degree of constant loyalty, support and inspiration which has made the memory of this year imperishable. Miss Baldwin, Executive Officer Lawrence, Secretary Irving, Director Anderson, their assistants, and all my fellow officers have applied themselves to the advancement of the interests of the Medical Society of the State

of New York with unwavering devotion. While other years may have seen greater advancement in the work of the Society, nevertheless, in turning the administration over to my successor, Dr. Goodrich, I know that I present to him a group of earnest, devoted workers adequately sensitized to the needs of the Society and anxious to yield to him the same degree of inspired support which I have enjoyed during the past year.

Respectfully submitted,
FLOYD S. WINSLOW, *President*

April 1, 1937

REPORT OF SECRETARY

To the House of Delegates, Gentlemen

It is the purpose of this report to place before you the main features of the secretarial work of the past year, the manner in which the office has met its calls, and to offer some personal comments by your present Secretary.

It was obvious in April 1936 that the mechanism of administration was meeting a demand for a gearing up adjustment to provide not only greater speed in operation but a far wider range of activity not only then and now but for the future. The membership has increased in the last two years by over 2,000 or about fifteen per cent. Changes in the Workmen's Compensation Laws have called upon the Society and its component County Societies to actually assist in the application of the laws as they involve the physicians of the State, not only the members but all non-members. The closer relationship of the Departments of Health and the State Society in efforts to promote public health in such fields as reduction of pneumonia mortality, syphilis control, cancer control, maternal and child welfare implies coordination of committee work through the Executive Committee and the Society's office along these lines. In the field of Public Relations between the Society and the public an extraordinary situation exists which has called for action plus foresight plus wisdom and always close attention on the part of all concerned as well as your Secretary through whose hands instructions of the administration pass. Consideration of medical trends

and social trends of today have led the Society to the conclusion that it could aid the people of the State by a skilful and faithful presentation to the public of the doctor's interest, of his desire and capacity to supply the service they need to get well and to keep well. All these activities, many of them well-known objectives of the medical profession for a long time, have recently grown in amazing fashion.

That the rapid increase in membership which began in 1935 continued in 1936 will be seen from the following table of

MEMBERSHIP STATISTICS

Membership December 31, 1935	13,536	
New Members, 1936	963	
Reinstated members, 1936	315	14,814
Deaths	152	
Resignations	76	228
		14,586
Dropped for nonpayment of dues December 31, 1936		378
		14,208
Elected and reinstated after October 1, 1936, and dues credited to 1937		454
		14,662

Honor Counties include Chemung, Clinton, Columbia, Fulton, Genesee, Jefferson, Madison, Orange, Otsego, Putnam, Rockland, Schenectady, Schoharie, Schuyler, Seneca, Tioga, Warren, Yates, and Saratoga.

With this enlargement of the Society roll in mind and with full knowledge of the other needs which cannot be expressed in figures the administration set forth immediately after your 1936 meeting to do its bigger job

Your President inspired the Executive Committee to take the first step toward more concerted action, and the event has proved him wise. He suggested bringing in to Executive Committee meetings the Chairmen of the Standing Committees, the Trustees, the Directors of Workmen's Compensation and Public Relations Bureau, and others. It has been found useful and time-saving to send the full minutes to each member of the Executive Committee. Agenda of all meetings of the Executive Committee have been sent not only to members but to all invited guests. These changes in method have meant some increase in travel expense, a great addition to the stenographic labor of the office, but, in the opinion of your Secretary, the effectiveness of the work of the administration has been enhanced to a degree far outweighing the extra cost and effort.

With this new gear ratio installed the car has gone faster and further. Compensation changes have gone into operation with astonishing rapidity. Public Health cooperation has achieved a notable success particularly in Pneumonia Control. The profession and the public have been educated in the imperfections of the system called compulsory health insurance. Finally, perhaps best of all, the public of the State—and indeed elsewhere—has been supplied through the press with a picture of the doctor as he really is in a way never done before.

Your Secretary begs to report on his own part in the work and craves your indulgence to make personal comment. He has attended over fifty meetings of the many committees, including conferences of county society secretaries and legislative chairmen, the eight district

branch meetings, the Annual Conference of State Secretaries and Editors in Chicago, etc., etc. He has been in constant supervision of the central office and the publication of the *STATE JOURNAL*, and has been in almost daily contact with the Bureau of Public Relations. He is fully aware of the size and importance of the work and the pressing need for more effort.

He begs to submit his opinion that the District Branches are of scientific and social value and is happy that the Revision Committee has retained them. He is convinced that the Secretary should be in closer contact with the officers of County Societies than has been possible this year.

He felt deeply honored to be selected as Secretary and has been happy to do the work. He has felt to the full the inspiration which comes from acting for an organization whose efforts are worth while because they help people to maintain health.

Your Secretary offers two comments. The first, is that the moment has come when the Society should employ a Secretary on full time. Private practice and the Secretaryship are, in his opinion, no longer compatible. The second is that the Society would do well to realize that for thirty-seven years its office has been managed by one of the most effectual, most responsible and most delightful personalities that it has been your Secretary's privilege to know, Miss Baldwin, who will retire on June 1 next. Your Secretary recommends that you make permanent the action of the Executive Committee in appointing Miss Baldwin to the position of Office Manager Emeritus with a salary of \$3,000 a year as long as she lives.

Respectfully submitted,

PETER IRVING, *Secretary*

April 1, 1937

REPORT OF COUNCIL

To the House of Delegates, Gentlemen

The Council has the honor to report on its conduct, as the executive and administrative body of the Society, of the

affairs and business of the Society during the year that has passed since your last meeting on April 27, 28, 1936.

The Council first decided to accept the

invitation of the Chamber of Commerce of Rochester to hold the next Annual Meeting in 1937 in Rochester

It proceeded to elect five members of the Council to complete its Executive Committee as provided in the By-Laws, Drs James M Flynn, Samuel J Kopetzky, John P J Cummins, H Wolcott Ingham, Thomas W Maloney The Executive Committee thus formed is

Dr Floyd S Winslow, Rochester, the President

Dr Charles S Goodrich, Brooklyn, the President-Elect

Dr Frederic E Sondern, New York, the immediate Past President

Dr Peter Irving, New York, the Secretary

Dr George W Kosmak, New York, the Treasurer

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Dr Thomas W Maloney, Geneva, (also Councillor Seventh District Branch)

Dr John P J Cummins, Ticonderoga, (also Councillor Fourth District Branch)

Dr H Wolcott Ingham, Jamestown, (also Councillor Eighth District Branch)

The Council held its two statutory meetings on April 28 and December 10, 1936, and its Executive Committee has carried on the work in the interim by monthly meetings, nine up to time of going to press (April 1) held in April, May, June, September, October and November, 1936 and January, February and March, 1937, with two yet to come in April and May

Most of the work of the year has been done by the Executive Committee as will appear below The Council itself on December 10, 1936, took definite action in a matter of more than ordinary importance to the hospitals and the medical profession of New York State, namely *Limitation of Administration of Anesthesia to Licensed Physicians and Dentists*

The House of Delegates in 1936 issued a mandate for introduction of a bill in the 1937 session of the State Legislature to prevent others than licensed physicians and dentists from administering anesthesia except in emergency The Council

received reports from various sources, particularly from the Committee on Legislation, which carried conviction that it would be this year at least unwise to press for this desirable legislation The Council, therefore, formally resolved to rescind this mandate subject to a referendum vote by mail of the 1936 House of Delegates The following ballot with informative memorandum was sent to the members of the 1936 House of Delegates

EVENTS AND INFORMATION considered by the Council in deciding that it would be unwise to attempt in 1937 to effect legislation looking toward limitation of "administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency"

I The mandate of the 1936 House was duly passed to the Committee on Legislation, and that Committee has been prepared to act in accordance—unless instructed to the contrary

II The Legislative Committee has at times since April 27, 1936 reported to the Executive Committee and finally to the Council certain facts of which it had been earlier aware and which it later learned It has found that there is much opposition to the passage of a law at this time because of these facts It has drawn up a memorandum which accurately states the present status of the matter in the following words

"In anticipating legislation on this subject, the Committee has encountered certain important facts which are of special interest at this time This matter was sponsored under the so-called 'Crawford Bill' and failed of enactment two years ago There are on file in the Legislative Bureau letters of protest from some of the most representative members of the State Society vigorously opposing legislation of this nature We also have protests unanimously adopted by the attending staff of representative hospitals throughout the State opposing this legislation

"The Committee has also interviewed many physicians at random throughout the State and finds that there is a general conflict of opinion as to the wisdom of this proposed legislation at this time The Legislative Committee undertook to consult with many leading anesthetists of this

State, who are members of the State Society, and who represent recognized state and national organizations on anesthesia, and found them to be of the unanimous opinion that this is not an opportune time to seek such legislation. These specialists in anesthesia asked that action be postponed for several reasons. First, that there is not now a sufficient number of medical men willing to take up anesthesia to take over the entire work, second, that there are still many prominent physicians, surgeons, and hospitals which prefer nurse anesthetists (of whom there are now about 700 in the State), and if given time they feel that they can remove a great portion of this opposition. We have a letter from the Chairman of the new Session on Anesthesia of the State Society, advising that action be postponed.

"From a practical standpoint we must conclude that the profession itself is divided as to the wisdom of this proposed legislation at this time. In this connection we can also anticipate the vigorous and sustained objections of certain hospital and nursing groups. Such militant and widespread opposition has a way of crystallizing itself in legislative halls, and with these hazards already facing such a bill, only the most visionary optimist could hope for its enactment into law at this time.

"The legislative Committee is in entire accord with the principle that anesthesia should be developed as a special branch of medicine. We believe that true progress in this field can come only through original observation and research by medical men. From a scientific standpoint we believe that progress is being retarded because this field has been taken over by others. We recommend that the State Society through all its agencies—educational, scientific, and publicity—stress the scientific phase of the practice of anesthesia, encourage and sponsor facilities through which physicians can equip themselves to assume the growing responsibilities which the administration of not only the older, but the newer anesthetic imposes upon us. This done effectively, the proposed legislation will then stand a better chance of enactment."

III On December 10, 1936, there appeared before the Council Dr T Drysdale Buchanan, representing the New York members of the American Society of Anesthetists, and Dr Paul Wood of the American

Society of Regional Anesthesia. These gentlemen counselled postponement of action for this year, at least—if not longer. Both were strongly in favor of limitation of anesthesia to physicians only, but both were of the opinion that no legislation to that effect should be supported this year, or until a sufficient time has passed to allow for training of sufficient physicians to replace the large number (700) of nurses now regularly giving anesthesia in the State.

IV With this gradually increasing information, culminating in the counsel of the anesthetists themselves, the Council, although in full sympathy with the idea of eventual limitation of anesthesia to physicians and dentists only, found itself wholly in favor of delay in pressing for legislation. It, therefore, took the action for 1937 indicated in its formal rescinding resolution.

FLOYD S WINSLOW, *President*
PETER IRVING, *Secretary*

January 11, 1937

Referendum Ballot

To Member of 1936 House of Delegates
From The Secretary of the Medical Society of the State of New York

As directed in Chapter IV, Section 5 of the By-Laws, a question is submitted below which requires your vote as a member of the 1936 House of Delegates.

The By-Laws state that the Council "shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Constitution and By-Laws. Such legislative action of the Council shall not become effective or binding on the Society until approved by a majority of a referendum vote of the House of Delegates, provided a majority of the House of Delegates vote thereon within fifteen days after the mailing of the question submitted for referendum. The Secretary shall send the question for referendum vote to all the members of the House of Delegates."

On April 27, 1936, the House of Delegates recorded a mandate "That the proper committee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a bill to limit the administration of anesthesia to duly licensed

invitation of the Chamber of Commerce of Rochester to hold the next Annual Meeting in 1937 in Rochester

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received reports from various sources, particularly from the Committee on Legislation, which carried conviction that it would be this year at least unwise to press for this desirable legislation The Council, therefore, formally resolved to rescind this mandate subject to a referendum vote by mail of the 1936 House of Delegates The following ballot with informative memorandum was sent to the members of the 1936 House of Delegates

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"The Committee has also interviewed many physicians at random throughout the State and finds that there is a general conflict of opinion as to the wisdom of this proposed legislation at this time. The Legislative Committee undertook to consult with many leading anesthetists of this

Standing Committees

Legislation

Homer L. Nelms *Chairman*
James L. Gallagher
B. Wallace Hamilton
John J. Masterson
Leo F. Simpson

Albany
Buffalo
New York
Brooklyn
Rochester

Advisory to Legislation

Harry Aranow
Blinn A. Buell
Henry C. Courten
George M. Fisher
William W. Hall
Horace M. Hicks
Homer J. Knickerbocker
Morton Ryder
C. Scott Towne
Earle W. Voorhees

New York
Binghamton
Richmond Hill
Utica
Watertown
Amsterdam
Geneva
Rye
Saratoga Springs
Poughkeepsie

Scientific Work

William A. Groat *Chairman*
Charles D. Post
Thomas M. Brennan
Nelson B. Sackett
Lloyd H. Ziegler
Frank J. Williams
Albert R. McFarland
Walter S. Atkinson
Thomas P. Farmer
Fedor L. Senger
James M. Flynn
Cassius H. Watson
Clarence V. Costello

Syracuse
Syracuse
Brooklyn
New York
Albany
Albany
Rochester
Watertown
Syracuse
Brooklyn
Rochester
New York
Rochester

Public Health and Medical Education

Thomas P. Farmer *Chairman*
Leo F. Schiff
Russell LaF. Cecil
Martin B. Tinker
Edward G. Whipple
Clayton W. Greene
Oliver W. H. Mitchell
James K. Qungley
Edward J. Wynkoop

Syracuse
Plattsburg
New York
Ithaca
Rochester
Buffalo
Syracuse
Rochester
Syracuse

Sub-Committee on Pneumonia Control

Russell L. Cecil *Chairman*
Oliver W. H. Mitchell
Clayton W. Greene
Peter Irving

New York
Syracuse
Buffalo
New York

Sub-Committee on Maternal Welfare

James K. Qungley, *Chairman*
Martin B. Tinker
Oliver W. H. Mitchell

Rochester
Ithaca
Syracuse

Sub-Committee on Child Hygiene

Edward J. Wynkoop, *Chairman*
Leo F. Schiff
Oliver W. H. Mitchell

Syracuse
Plattsburg
Syracuse

Sub-Committee on Nursing Education

Clayton W. Greene *Chairman*
Oliver W. H. Mitchell
Russell L. Cecil
Martin B. Tinker

Buffalo
Syracuse
New York
Ithaca

Sub-Committee on Cancer Control

Edward G. Whipple *Chairman*
Martin B. Tinker
Oliver W. H. Mitchell

Rochester
Ithaca
Syracuse

Public Relations

Augustus J. Hambrook *Chairman*
William H. Ross
Herbert H. Bauckus
Arthur F. Hoyl
Edward T. Wentworth
Frederic W. Holcomb
Thomas H. Cunningham

Troy
Brentwood
Buffalo
New Rochelle
Rochester
Kingston
Glens Falls

Sub-Committee on Deaf and Hard of Hearing

Augustus J. Hambrook, *Chairman*
Leo F. Schiff

Troy
Plattsburg

Economics

Frederic E. Elliott *Chairman*
Frederick S. Wetherell
Joseph P. Garen
Alfred E. Shipley
Joseph C. O. Gorman
Cassius H. Watson
Frederick M. Miller
George C. Vogt
Chester O. Davison
Walter W. Mott
Morris Maslon
Warren Wooden

Brooklyn
Syracuse
Olean
Brooklyn
New York
Utica
Binghamton
Poughkeepsie
White Plains
Glens Falls
Rochester

Arrangements

Leo F. Simpson *Chairman*
James M. Flynn
Austin G. Morris
Henry B. Crawford
Warren Wooden
Benjamin J. Slater
John R. Williams
Albert D. Kaiser
Mrs. J. Craig Potter

Rochester
Rochester
Rochester
Rochester
Rochester
Rochester
Rochester
Rochester
Rochester

Special Committees

Revision of Constitution and By-Laws

Oliver W. H. Mitchell *Chairman*
Thomas H. Cunningham
Charles H. Goodrich
Walter W. Mott
Joseph C. O. Gorman

Syracuse
Glens Falls
Brooklyn
White Plains
Buffalo

Trends in Medical Practice

Terry M. Townsend *Chairman*
Augustus J. Hambrook
William A. Groat
Homer L. Nelms
Thomas P. Farmer
Frederic E. Elliott
Leo F. Simpson
Samuel J. Kopetzky
David B. Jewett
George W. Kosmak

New York
Troy
Syracuse
Albany
Syracuse
Brooklyn
Rochester
New York
Rochester
New York

Journal Management

George W. Kosmak *Chairman*
Thomas M. Brennan
William A. Groat
Samuel J. Kopetzky
Nathan P. Sears
Peter Irving *Secretary*

New York
Brooklyn
Syracuse
New York
Syracuse
New York

Medical Research

John J. Morton Jr. *Chairman*
John Wyckoff
Joshua E. Sweet
Allen O. Whipple
Simon Flexner
Augustus B. Wadsworth
Edwin MacD. Stanton
Herman G. Weiskotten
Winfield W. Scott
Burton T. Simpson
Peyton Rous
George J. Heuer
Marshall Clinton

Rochester
New York
New York
New York
New York
Albany
Schenectady
Syracuse
Rochester
Buffalo
New York
Buffalo

Workmen's Compensation Procedure

David J. Kaliski *Chairman*
Frederic E. Elliott
B. Wallace Hamilton

New York
Brooklyn
New York

Advisory Committee to Workmen's Compensation Procedure

Joseph P. Henry
Harry C. Guess

Rochester
Buffalo

Prize Essays

James Alexander Miller, *Chairman*
Edward G. Whipple
Burton T. Simpson

New York
Rochester
Buffalo

To Confer with Saratoga Springs Commission

John Wyckoff *Chairman*
George S. Towne
Alfred W. Armstrong

New York
Saratoga Springs
Canandaigua

physicians and dentists except in cases of emergency."

On December 10, 1936, the Council rescinded this mandate by the following resolution "That the action of the 1936 House of Delegates which gave the mandate to the Committee on Legislation to support a bill limiting the giving of anesthesia to physicians be rescinded—this action to be submitted (as provided in the Constitution and By-Laws) to a referendum vote of the 1936 House of Delegates, and that as an aid to voting, a circular be formulated and distributed to the members which shall set forth the reasons why the Anesthesia Societies advise delay."

THE QUESTION IS SHALL THE ACTION OF THE COUNCIL IN RESCINDING THE ABOVE MANDATE OF THE HOUSE OF DELEGATES BE APPROVED?

In order to aid you to make a decision as directed by the Council, there is attached a memorandum of the events and information which led the Council to its conclusion to rescind.

Please indicate your vote hereon, *sign*, and return at your earliest convenience to me, before January 26, 1937, (when the statutory fifteen days will have passed)

YES

NO

Action of Council approved

Signature

Date

Respectfully submitted,
PETER IRVING, M D, Secretary

Memorandum

to

Members of 1936 House of Delegates

Of the 192 members of the House, 165 replied, eight disapproved rescinding the mandate, but 157, far more than the majority required by the By-Laws, approved the action of the Council. It was, therefore, ordered by the Council that no such legislation be sought during the period before the meeting of the House in 1937.

Information for New Licentiates

The Council, at its meeting on December 10, 1936, on recommendation of the

Committee on Public Health and Medical Education resolved

That the State Department of Education be asked to prepare a pamphlet for issuance to all new licentiates—the pamphlet to contain the essential information in regard to technicalities in the Education Law to be observed by all physicians, particularly in the matters of local registration and annual registration, and

That the State Department of Health be asked to issue to all new licentiates a revised pamphlet to contain information essential for every physician to know in regard to the Public Health Law and to obtain through proper authority a similar statement of the Sanitary Code of New York City

Executive Committee

The bulk of the Council's administrative work has been conducted by the Executive Committee as indicated in the following report

In addition to routine matters such as remission of dues on account of ill-health, approval or disapproval of changes in their Constitutions and By-Laws proposed by County Societies, communications of minor import, the Executive Committee of the Council has taken action within its province in various matters that have come to it either by recommendation of Standing and Special Committees or from other sources or from within its own membership. It has carried out its duty to supervise malpractice defense and the group plan for insurance against malpractice through its Insurance Committee. It has carried out its duty to supervise publication of the NEW YORK STATE JOURNAL OF MEDICINE and the Medical Directory of New York, New Jersey, and Connecticut. The report of the Journal Management Committee is presented herewith in full.

The obligation of the Executive Committee to select personnel of all committees other than elected Chairmen of Standing Committees resulted in appointment, on nomination by the President, of all the necessary members so that the working committees were finally constituted as follows

of possible legislation in the matter have been made by the Committee on Legislation as well as by the Committee on Economics. The Executive Committee has repeatedly discussed the matter during the year and adopted the following resolutions on Feb 11, 1937

1 We define Medical Expense Indemnity Insurance as a form of insurance whereby an individual, by making payments of stated premiums, purchases a definite sum of money *in cash*, which is thus made available to him for the payment of the individual's physician's charges for professional services. We recommend endorsement of such a form of insurance

2 We would add that in our opinion the physician's claims for his professional services should be a first lien on the cash indemnity

3 That the Medical Expense Indemnity Insurance Plan must be carried out on an actuarial basis

4 That philanthropy has no place in a Medical Expense Indemnity Insurance scheme or plan to deliver cash benefits to those who pay its premium requirements, so as to have funds to meet physicians' charges for services

Following this declaration of its belief the Executive Committee called for and received a proposed draft of an Enabling Act. At the time of writing this report (April 1, 1937) the matter is still pending before the Executive Committee

Group Practice

The Committee on Economics, after a study of the implications of what is called "group practice" made recommendation that the Society go on record as to behavior of such groups. The Executive Committee adopted the recommendation in the following words

That it be the expressed opinion of the Medical Society of the State of New York that groups of physicians, practicing as such, should remain within the same framework of restrictions as to their conduct as though the activity were that of an individual physician. In other words, we feel that a group may not obtain publicity, by any means, in lay publications, that it should not solicit or advertise, that it should not claim superior quality or service and it

should not practice competitive fees against the individual physician of the community. If the group conforms to this and relies solely upon the recognition of its service by the people of the community as its sole means of acquisition of patronage, it would seem to be a proper and fair activity. On the other hand, if the group by subterfuge courts the patronage of the community by enjoying any form of publicity, it would seem to us that each member physician should be considered personally guilty of misconduct

Workmen's Compensation

The Executive Committee, on recommendation of the Committee on Workmen's Compensation Procedures, went on record as favoring the promulgation of a state-wide fee schedule, the same as already set for the Metropolitan area. So far Commissioner Andrews has not seen fit to promulgate any fee schedule for the State outside the Metropolitan area.

In the matter of indicating in the Directory the qualifications of physicians for general and special work under the Compensation Act, as set by County Society Boards, the Executive Committee directed the JOURNAL Management Committee to arrange appropriate designations for the 1937 Directory. This instruction was carried out. Necessarily, in the first year there have occurred errors, but the JOURNAL Committee is perfecting the mechanism for future editions

New Session on Regional and General Anesthesia

The Executive Committee acted favorably on the suggestion presented to the House of Delegates and passed down through the Council for the creation of this new Session. There were appointed for the year 1936-1937

J Lewis Amster, Chairman	New York
S LeRoy Sahler, Secretary	Rochester

Section or Session on Pathology?

The Executive Committee *recommends* to the House the creation of a Section or a Session on Pathology. The suggestion came to the Committee from Dr James Ewing of New York and the recommendation followed discussion by

On Malpractice Defense and Indemnity Insurance

James M. Flynn, <i>Chairman</i>	Rochester
Chas. Gordon Heyd	New York
Milton J. Goodfriend	Bronx

World's Fair

James R. Reuling, Jr., <i>Chairman</i>	Bayside
Thomas A. McGoldrick	Brooklyn
Joseph P. Henry	Rochester

Advisory Committee to Woman's Auxiliary

H. P. Mencken, <i>Chairman</i>	Flushing
Frederic C. Conway	Albany
John L. Bauer	Brooklyn
William H. Ross	Brentwood
Herman W. Galster	Scotia

Abraham Jacoby Committee

H. L. K. Shaw, <i>Chairman</i>	Albany
Chas. Gordon Heyd	New York
J. Richard Kevin	Brooklyn
Grant C. Madill	Ogdensburg

On By-Laws

Peter Irving, <i>Chairman</i>	New York
Samuel J. Kopetzky	New York
Lorenz J. Brosnan	New York

Censors

Floyd S. Winslow, <i>Chairman Ex-officio</i>	Rochester
Peter Irving, <i>Secretary ex-officio</i>	New York
Terry M. Townsend	New York
Carl Boettiger	Flushing
Bertran W. Gifford	Saugerties
John P. J. Cummins	Ticonderoga
Murray M. Gardner	Watertown
Leo P. Larkin	Ithaca
Thomas W. Maloney	Geneva
Henry W. Ingham	Jamestown

Session on Physical Therapy

Madge C. L. McGuinness, <i>Chairman</i>	New York
Harold J. Harris, <i>Secretary</i>	Westport

Legal Counsel Lorenz J. Brosnan Reappointment
Attorney Thomas H. Clearwater Reappointment
Executive Officer Joseph S. Lawrence Renewal of Contract.

Director of Bureau of Public Relations Dwight Anderson
 Renewal of Contract.

At its first meeting on April 28, 1936, the Executive Committee decided, on suggestion of the President, Dr. Winslow, to invite to its meetings the five Trustees, the six Chairmen of Standing Committees, and later extended the invitation to the Executive Officer, Dr. Lawrence, the Assistant Secretary, Dr. Podvin—as had been customary in former years—and also as a new departure, to the First Vice-President, the Director of Workmen's Compensation, the Chairman of the Committee on Trends, the Director of the Bureau of Public Relations. All these guests received the privilege of the floor for discussion in the hope that the Executive Committee could thereby be aided in reaching conclusions on all matters before it for consideration. The Executive Committee, after eight meetings, is convinced that these guests have contributed largely

Health Education

On recommendation of the Committee on Public Relations, the Executive Committee resolved

That a survey by the State Education Department of health education programs through the State be endorsed, as well as the proposed selection of Dr. Cyrus H. Maxwell of Auburn, to direct the survey

Pneumonia Control Program

In connection with the extension in the summer of 1936 of the Pneumonia Control Program to New York City, a request was received from the Pneumonia Committee of the five Metropolitan County Societies for appointment of a representative to sit with that body. Dr. Peter Irving, New York, was designated. The Executive Committee signified its approval of the establishment of this Committee, which had been followed by the appointment by Dr. John L. Rice, Commissioner of the Department of Health of New York City, of an Advisory Council on Pneumonia Control for his Department in New York City. The entire State thus is now included in this public health effort which was initiated by the Medical Society of the State of New York, and the two large Departments of Health now have Advisory Councils on Pneumonia Control composed of members from the various organizations most concerned. Many of the members serve on both of these advisory councils so that a beneficial "interlocking directorate" can now advise both Health Departments.

Federal Department of Health

It was resolved that

The Medical Society of the State of New York urge that the reorganization of the Federal Government combine in one Department all medical and health activities, making this a separate and distinct Department, and urge especially the nomination as Chief Executive Officer of such a Department of a qualified physician with a record of achievement in administration.

Medical Expense Indemnity Insurance

Studies on this subject over a long period of time have been made by the Committee on Economics, and studies

(e) In each community under the supervision of its organized medical group there shall be developed the details of this plan so as to meet local conditions and make it workable.

On recommendation of the Committee on Economics a *re-statement* was adopted which would rescind sub-sections (a), (b), (c), (d), (e) of Proposition No 3 above and substitute the following

(a) Hospital care shall mean provision of bed, board, general nurse service, customary surgical dressings and medicines, and other facilities of the institution not including medical care, as defined in (b)

(b) Medical care shall mean any procedure or service by a licensed physician acting under authority of Section 1250 of Article 48 of the Education Law of the State of New York.

(c) Hospitals making contracts with organizations, acting under Chapter 595 of the laws of 1934—the Insurance Law of the State of New York—shall not implicate themselves with conditions inconsistent with the principles and definitions herewith stated.

(d) The operation of such hospital insurance in any community shall not discriminate against any reputable institution, whether voluntary or proprietary

(e) Admission of patients for care under the benefits of such hospital insurance shall be only through reference by a private physician. Exemption to this provision shall be made for the exigency of any emergent need.

(f) Certificates of membership in such association shall specifically state that the insurance does not provide for any medical care as defined in (b). Actual wording of the certificate to be approved by the local County Medical Society or Societies

(g) Every hospital insurance plan operating under the egis of this Proposition shall develop the details of its operation to conform with such principles and policies as from time to time may be determined by the local County Medical Society or Societies

(h) When it is so desired by the local County Medical Society satisfactory representation from the membership of the local County Medical Society on the Board of Management of the hospital insurance shall be arranged

Protest on Walch Pamphlet

On March 11, 1937, the Executive Committee received and filed without action the following resolution

Whereas, the State Medical Society has recently distributed among the profession through its Public Relations Bureau a pamphlet entitled, "On the Witness Stand," and

Whereas, the said pamphlet is purported to be an impartial statement concerning socialized medicine, and compulsory health insurance, and

Whereas, this so-called impartiality is certified and attested to by the State Society insofar as the State machinery and funds made possible both the printing and distribution of said pamphlet, and

Whereas, so far from being impartial, this pamphlet contains numerous distortions of facts easily ascertainable, as well as statements that are almost untruths, thus giving it a decided and deliberate bias, and

Whereas, we, the members of the Bronx County Medical Society, were never informed beforehand of the intent to distribute such a pamphlet, be it therefore

Resolved, that the Bronx County Medical Society register its protest against the State Society's lending its prestige and endorsement to a campaign of misrepresentation, and be it

Further Resolved, that a copy of these resolutions be submitted to the State Medical Society

Licensing of Foreign Physicians

The Executive Committee heard with gratification that the Board of Regents had resolved

That on applications filed after October 15, 1936, no license of a legally constituted Board of Examiners in any foreign country shall be indorsed, pursuant to the provisions of Section 51 of the Education Law, until the applicant shall pass the licensing examination prescribed by law or Regents' rule

Malpractice Defense Insurance

Because frequently there is an interval of months between application for membership and election, it was thought wise to adopt the following resolution

That a temporary binder be issued to any

the Committee with Drs M J Fein, Nathan C Foot, and Ward J MacNeal, members of the New York State Committee on Economics of Pathology. The Executive Committee believes that pathology is fundamental in medicine and that such a Section or Session would be advantageous.

Nomination to Board of Psychiatric Examiners

In response to formal request by Dr Frederick W Parsons, Commissioner of the State Department of Mental Hygiene, there was nominated Dr Israel Strauss, New York, to serve under the new law on the newly created Board of Psychiatric Examiners. Dr Strauss later received formal appointment.

Nominations to Grievance Committee

In response to formal request by Dr Harold Rypins, Executive Secretary of the Grievance Committee, there were nominated to fill two vacancies on the Grievance Committee of the State Department of Education, created by conclusion of the terms of office of Drs Frederick H Flaherty and Austin G Morris.

To succeed themselves

Dr Frederick H Flaherty, Syracuse
Dr Austin G Morris, Rochester

Alternates

Dr Samuel J Kopetzky, New York
Dr Frederic E Sondern, New York
Dr George W Kosmak, New York
Dr Peter Irving, New York

Dr Flaherty and Dr Morris later received formal reappointments.

Nomination for Honorary Membership

The Executive Committee received the following nomination signed pursuant to the By-Laws by three members

December 22, 1936

Executive Committee
Medical Society of the State of New York
2 East 103rd Street
New York, N. Y.

Gentlemen —

The undersigned members desire to nominate for Honorary Membership in the

Medical Society of the State of New York
Dr Jose Arcé, Professor of Surgery,
University of Buenos Aires, Buenos
Aires, Argentina

We beg that you present this at the meeting of the House of Delegates in May, 1937, as prescribed by the By-Laws, Chapter I, Section 4.

Very truly yours,
FLOYD S WINSLOW
JOSEPH J ELLER
CHAS GORDON HEYD

The Committee *recommends* that the By-Law requiring a wait of one year be suspended so that the House may proceed to elect Dr José Arcé to Honorary Membership at its 1937 meeting.

Re-Statement of Proposition No 3 of the Booth Report

This part of the Booth Report, which was adopted by the House of Delegates in April 1933, reads as follows:

Proposition No 3

There is in every community a group of people below the "comfort level," on whom the costs of medical care impose a heavy burden. These are self-respecting people of the salaried class in most instances, whose living expenses are met from their weekly earnings. For them the greater part of medical costs comprise charges for hospital and nursing care.

To lessen the burden of hospital and nursing care for this wage-earning group, *your Committee recommends* the adoption generally of a plan of hospital insurance, whose principles may be stated as follows:

(a) Members of employed groups may receive for the payment of a small annual sum hospital care in semi-private accommodations for a period of 21 days in any one year, such care to include bed and board, general nursing service, x-ray and laboratory examinations.

(b) All reputable voluntary hospitals and some proprietary hospitals be entitled to participate in this plan.

(c) Except in emergencies, all admissions of patients cared for under this plan must be made through the patient's personal physician.

(d) Certificates of membership issued to subscribers shall state specifically that the service does not cover the fee of the patient's physician.

the new Workmen's Compensation Law. Necessarily, there have been mistakes in these data in the first year. Next year these errors should not occur, because the yearly card sent to each doctor will carry a blank space where he can insert his own letters and numerals.

In the matter of listing certification by National Boards of Specialties new designations have been inserted. Next year each member can indicate his status on the card.

The Committee has carefully considered many suggestions from members for listing of membership in various organizations, of past hospital affiliations, etc. The Committee has deemed it wise to record membership only in scientific medical organizations, local or national, but not foreign. Past hospital positions would, it is thought, make very interesting reading on the order of "Who's Who", but such inclusions would make an unwieldy book. After all, the Committee thinks, the purpose of the Directory is to supply information of assistance to physicians in reference work for traveling patients.

Respectfully submitted,

GEORGE W. KOSMAK, *Chairman*

SAMUEL J. KOPETZKY

THOMAS M. BRENNAN

WILLIAM A. GROAT

NATHAN P. SEARS

PETER IRVING, *Secretary*

Retirement of Miss Baldwin to the Position of Office Manager Emeritus

At the meeting of the Executive Committee on June 11, 1936, Dr. Nathan B. Van Etten, Trustee, asked and was granted the privilege of the floor. He said:

"I have been in the active work of organized medicine for a great many years and in the work of the State Society, directly or indirectly, for thirty years. I have seen the State Society grow until it has become a great powerful organization. I suppose this is one of the best organized Societies in the world, except the American Medical Association, which is the largest Medical Society in the world. I have seen this Society develop through the work of a good many people, I have seen it especially develop

through the work of one person. When I first became acquainted with the Society I felt, as most of us did, that one person was very largely responsible for the supervision, for the faithful attention to every detail in this Society, for the conservation of our resources, as well as the conservation of our ideals. This was due to one person—Presidents, Secretaries, Treasurers—officers of all kinds have come and gone during the time that I have been connected with organized medicine in the State of New York. This one person is Miss Baldwin.

"It is with considerable emotion that I speak at this time, and I had hoped to live long enough to be able to make the suggestion that I am going to make to you gentlemen today. It is very nice to say 'Thank you' to people when they retire from office and that you are very glad they have accomplished so much for medicine—and we very often wait before we do these things until the person whom we think we are honoring is ill, incompetent to proceed, or perhaps has even passed away, when our thanks are expressed by a subscription to a wreath or a floral decoration. I think that in view of the long and marvelous services that have been given to the Medical Society of the State of New York by Miss Baldwin, it would be most fitting and appropriate to retire her, adding an Emeritus to her title. I, therefore, would suggest that someone make a motion to that effect, with recommendation to the Board of Trustees for a salary of \$3,000 per annum as long as she lives."

On motion by Dr. Kopetzky, seconded by Dr. Goodrich, and unanimously carried, it was decided that Miss Baldwin be retired with the title "Office Manager Emeritus" at such time as may be set by a Committee consisting of the President, the Treasurer and the Secretary, and that recommendation be made to the Board of Trustees that from the date of retirement she receive, as long as she lives, a salary at the rate of \$3,000 per annum.

* * *

The Executive Committee *recommends* that the House make permanent this action of the Executive Committee.

applicant for membership in the Medical Society of the State of New York as soon as the Secretary of the County Society advises the Secretary of the State Society that his application for membership, together with his check for dues has been received and placed on file with the County Society, provided that when the applicant is finally elected the binder is to be closed by the issuance of a certificate of insurance dated as of the date of issue of the binder, provided that if the applicant fails of election the binder will be cancelled as of the date of the issuance of the application, and the applicant would enjoy no protection thereunder

Journal Management Committee

Expansion of both publications—the NEW YORK STATE JOURNAL OF MEDICINE and the Medical Directory of New York, New Jersey, and Connecticut—was achieved in 1936

THE JOURNAL

The page content for the last three years has been as follows

	1934	1935	1936
Total text	1104	1296	2036
Advertising	554	757	1076

On October 1, 1936, a magazine size of 160 pages became possible. Not only has more scientific material been published, but more news about various subjects relating to the practice of medicine, public health, Society activities, medical economics, comment in the section "Across the Desk," medical news from counties, book reviews, medicolegal comment, and recently there has been added a new section on "Hospital News." It is planned to record events in the field of maternal and child welfare as time goes on. It is hoped eventually that the magazine may reach a size of 192 pages and cover

Last November the Secretary, with Dr Kopetzky representing the Editorial Board, attended the Annual Meeting held by the American Medical Association of State Society Secretaries and Editors, and they were accompanied by Thomas R Gardiner, Business Manager of the JOURNAL, William Seaver Woods, writer for the JOURNAL, and Dwight Anderson

of the Bureau of Public Relations of the State Society. The group was welcomed at the headquarters of the American Medical Association in Chicago by Dr West and Dr Fishbein, and was conducted through the plant—particularly the editorial and printing offices. This experience led to formulation of plans that will contribute, it is thought, to further improvements in the JOURNAL.

In the field of scientific writings the JOURNAL seeks original material concerning all phases of medicine, scientific and clinical, for attention of both general practitioners and specialists of all kinds. In 1936 there were submitted 368 scientific articles of which 211 were selected to fill space available.

The cost of production to the Society remained in 1936 below the budgetary \$1.00 per member. In 1934 it was 70 cents per member, in 1935 it was 90 cents, and it rose in 1936 slightly to 95 cents. This increase is trifling when it is compared with the enlargement of the JOURNAL.

The members of the Committee find the work of supervision of steadily increasing interest and wish to extend their thanks to the membership for the growing attention that the magazine is receiving. It is gratifying to be able to report that references to editorials and other text by other medical journals are more and more frequent.

THE DIRECTORY

The Committee was able to arrange with the State Societies of New Jersey and Connecticut to provide full data about their members along the same lines as appear for physicians in New York State. The two other Societies have done this at their own expense, and the Committee extends its sincere thanks to Dr LeRoy A Wilkes, Executive Secretary of the Medical Society of New Jersey, and to Dr Creighton Barker, Administrative Secretary of the Connecticut State Medical Society. The book has been made with their help far more valuable to everyone.

There have been, for the physicians in New York State, designations devised which indicate general and special qualifications for each physician listed under

the general financial condition of the country more or less uncertain and future returns from the sources of our income possibly affected by changing conditions, it remains essential to conserve to the highest degree the principal of your assets. This may demand for the time being larger cash holdings without attempting investments at higher but more doubtful interest returns. Possibly lower returns must therefore be compensated by a carefully prepared budget and adherence to its allotments. An additional and extraordinary item of expense during the present year, which will increase annually, is the payment of Social Security

taxes for the unemployed and for the employees of your Society.

Your Treasurer desires to express his obligations to the Board of Trustees for their faithful supervision of the Society's funds and constant cooperation, likewise to the certified accountants, Messrs Wolf & Company, whose annual statement is attached to this report, as well as to Miss Baldwin and the office staff for their efficient handling of the details of his office.

Respectfully submitted,

GEORGE W KOSMAK, *Treasurer*

April 1, 1937

REPORT OF BOARD OF TRUSTEES

To The House of Delegates, Gentlemen

During the course of the year following the last previous meeting of the House your Board has carried out the duties imposed upon it by the Constitution and By-Laws. The manner in which they have been performed and the results of their policies as regards the investments of the Society will be adequately shown in the report of the Treasurer and need not be duplicated here.

There is no need to inform the House concerning the period of financial uncertainty through which this country—and indeed the whole world—is passing, it is mentioned merely as a foreword to some of the statements which follow. In relation to investments the most serious consideration must be given to the recent rapid change in the governmental attitude to the status of private ownership of property, the condition of its own budget with the resultant threat of, if not actually the presence of inflation, the inevitable effect of these policies on investments and finally the credit situation due to the government's continuing policy of large borrowings upon its own securities which are held in the main by the banks of the country, which bonds constitute a large if not a major part of the banking reserves. For these reasons especially, the task of investment and re-investment of funds accruing to the Society has been an onerous and difficult one, and for the present at least, your Board believing that their most important function is the

protection of the safety of the principal of the Society, has deposited in a number of savings banks at a low rate of interest in the neighborhood of twenty per cent of its total investment funds. The remainder in accordance with the will of the House has been invested in bonds and mortgages and not to exceed twenty-five per cent of the total in corporate stocks. As may be noted from the Treasurer's report some of the earlier bond purchases are in default and have been so from the early or later years of the depression, fortunately these bonds are in small amounts and some of them will probably be redeemed. At any rate the total loss to the Society if none are redeemed will not exceed six or seven per cent of the amount invested prior to 1929. The investment in industrial securities authorized last year has already shown a satisfactory increment both in value and dividends.

The expenditures of the Society have increased in the neighborhood of thirty per cent in the past eight years, its normal income from dues and other sources not including investments has increased a little less than ten per cent. Until this year we have lived within our income, it is quite doubtful that we will maintain that record, and unless it be maintained by careful limitation of expenditures proportioned to their actual value to the Society, by the Executive Committee and the Council whose duty it is, subordinate to the orders of the House, to adopt and approve policies in-

Conferences with State Hospital Association

Present hospital customs having been the subject of much study by the Committee on Economics and consideration by the Executive Committee, it was deemed wise to enter in conference with the State Hospital Association on such matters as affect both hospital and physician. For this purpose the following Committee was appointed

For the State Society

Floyd S Winslow, <i>Chairman</i>	Rochester
Frederic E Elliott	Brooklyn
Thomas P Farmer	Syracuse
William A Groat	Syracuse
Augustus J Hambrook	Troy
Leo F Simpson	Rochester
Homer L Nelms	Albany
David J Kaliski	New York
Peter Irving—(<i>ex-officio</i>)	New York

For the State Hospital Association

Frederick MacCurdy, Supt. Vanderbilt Clinic	New York
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Sigmund S Goldwater, Commissioner Department of Hospitals	New York
Basil C MacLean, Director Strong Memorial Hospital	Rochester
John H Hayes, Supt. Lenox Hill Hospital	New York
P G Savage, Supt. Niagara Falls Memorial Hospital	Niagara Falls
Carl P Wright, Supt. General Hospital of Syracuse	Syracuse
Ernest McKay, Supt. Arnot-Ogden Memorial Hospital	Elmira
James U Norris, Supt. Woman's Hospital	New York
Mabel Davies, Supt. Beekman Street Hospital	New York

Two conferences have been successfully held and progress made in phrasing advice in various matters for presentation to both organizations when completed.

Respectfully submitted,

PETER IRVING, *Secretary*

April 1, 1937

REPORT OF THE TREASURER

To the House of Delegates, Gentlemen

In accordance with the provisions of the By-laws, there is presented to you herewith the report of the Treasurer of your Society for the current year as well as the auditor's statement for the twelve months ending December 31, 1936. The details of this carefully prepared statement should be given earnest consideration by the members of the Society. Attention may be called to the following items. The income of the Society is based on dues and interest payments. The former show an increase during 1936 of \$3,373. The income from invested funds was \$9,679.66, in comparison with a similar item of \$3,075.75 in 1935.

The security holdings of your Society have undergone considerable change during the past year owing to the necessity for reinvesting the proceeds from the bonds called for redemption. Of the latter proceeds, some \$33,000 have been placed in savings banks for lack of suitable investment opportunities and about

\$50,000 have been used for the purchase of high grade preferred and common stocks. Bonds of a par value of \$23,000 have defaulted in interest since 1932 but none since December 1, 1935. The total interest lost up to December 31, 1936, is \$4,220 but the bonds themselves have a market value.

For the purpose of simplification, the various fund divisions in previous balance sheets have been eliminated and have been consolidated with the General Fund which, with other current assets, constitutes a grand total of \$266,792.48. While the stocks purchased during the year show an increase of \$1,910, the bond holdings disclose a gross depreciation of \$3,614.87 when comparing costs with market values as of December 31, 1936. This net depreciation of \$1,714 (omitting cents) may be compared with a similar figure of \$10,440 as of December 31, 1936, and indicates an increase in market value during this period of \$8,725.

The status of your Society's treasury may be termed as satisfactory but with

JOURNAL ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1936

Expenses

JOURNAL Management Committee

Salary	\$2,200 00	
Expense	4,450 38	\$6,650 38
		<hr/>
Cost of Publication		7,516 34
		<hr/>
Total cost of JOURNAL		\$14,166 72
		<hr/>

DIRECTORY ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1936

Expenses

DIRECTORY —

Salaries	\$6,065 44
Stationery	530 23
Postage	1,136 40
Expense	502 14
Publication	8,985 00
	<hr/>
Total cost of DIRECTORY	\$17,219 21
	<hr/>

STATEMENT OF INCOME AND EXPENSES FOR TWELVE MONTHS ENDED DECEMBER 31, 1936

*Expenses**Income*

Committee on —		Annual Dues Received	
Legislation	\$7 108 61	Arrears	\$1 320 00
Public Health and Medical Education	5 765 07	Year 1935	10 270 00
Economics	5 087 11	Year 1936	131 500 00
Public Relations	883 79		<hr/>
Scientific Work	909 78		\$143 090 00
Medical Research	38 70	Clerical Work	116 18
Trends	\$22 440 16	Interest Received —	
Less Sale of Pamphlets, Etc.	1 658 36	From Bonds	7 346 62
	<hr/>	From Deposits	172 18
Workmen's Compensation	20 781 80		<hr/>
Less Sale of Tickets	\$6 389 22	Dividends Received	7,518 80
	25 00	Gain from Sale of Securities	1 175 00
	<hr/>		2 420 77
	6 364 22		
County Secretaries Conference	\$46 939 08		
District Branches	790 01		
Special Appropriation for District Branches	\$2 119 38		
	<hr/>		
	250 00		
Executive Officer — Salary and Expenses	2 369 38		
Secretary Eminentus — Honorarium	9 509 39		
Traveling Expenses —	1 000 00		
A. M. A.			
General	\$1 584 20		
President	3 261 91		
Secretary	1 149 07		
	618 25		
	<hr/>		
Secretary — Salary and Expenses	6 613 43		
Medals for Past Presidents	3 850 00		
Annual Meeting — Year 1936 — Net	1 320 00		
Legal — Fees and Expense	1 128 48		
Rent	12 174 39		
Auditing	2 600 00		
Stationery and Printing	2 500 00		
Postage	1 059 91		
Telephone	395 66		
Custodian Fees (Securities)	188 70		
Office and Sundry Expense	215 05		
Insurance	1 514 89		
Salaries — General	11 70		
Cost of JOURNAL Transferred from JOURNAL Account	14 108 20		
Cost of Directory Transferred from Directory Account	14 166 72		
	<hr/>		
	17 219 21		
	<hr/>		
Excess of Income over Expenses Transferred to Surplus	\$136,674 20		
	<hr/>		
	17 646 55		
	<hr/>		
	\$154 320 75		
	<hr/>		
			\$154 320 75
			<hr/>

The above accounts have been audited and found correct by Wolf & Company,
C P A New York State

Respectfully submitted,
GEORGE W. KOSMAK, *Treasurer*

REPORT OF THE TREASURER

Balance Sheet, December 31, 1936

ASSETS				
CURRENT ASSETS				
General Fund —				
Cash —				
Petty Cash Fund		\$34 06		
On Deposit —				
General Funds		14,360 87		
In Savings Accounts		33,172 18		
			\$47,567 11	
Securities — At Market Value —				
Stocks		53,437 50		
Bonds and Mortgages	\$158,111 95			
Accrued Interest on Bonds	1,710 87			
		159,822 82	213,260 32	\$260,827 43
TRUST FUND ASSETS				
Cash on Deposit —				
In Savings Bank —				
Lucien Howe Prize Fund Account		\$1,063 61		
Merritt H Cash Prize Fund Account		437 56		
			\$1,501 17	
Securities — At Market Value —				
Lucien Howe Prize Fund —				
Bonds	\$2,864 61			
Accrued Interest	13 13			
		2,877 74		
Merritt H Cash Prize Fund —				
Bonds	1,354 61			
Accrued Interest	6 05			
		1,360 66	4,238 40	5,739 57
INTER-SOCIETY ACCOUNT				
Due to General Fund from —				
Lucien Howe Prize Fund			137 69	
Merritt H Cash Prize Fund			86 79	
				224 48
FIXED ASSET				
Furniture and Fixtures —				
Carried at Memorandum Value				1 00
				<u>\$266,792 48</u>
LIABILITIES, TRUST FUNDS AND CAPITAL				
DEFERRED INCOME				
Dues for Year 1937 Received in Advance				\$2,410 00
TRUST FUNDS				
Due to General Fund for Advances —				
Lucien Howe Prize Fund		\$137 69		
Merritt H Cash Prize Fund		86 79		
			\$224 48	
Capital —				
Lucien Howe Prize Fund		3 803 66		
Merritt H Cash Prize Fund		1,711 43		
			5,515 09	5,739 57
SURPLUS (GENERAL FUND)				
Balance — January 1, 1936			232,320 85	
Add				
Excess of Income over Expense				
Year 1936	\$17,646 55			
Increase in Market Value of Securities	8,675 51			
		26,322 06		258,642 91
				<u>\$266,792 48</u>

izing their work in refraction only. It cannot discriminate against the optometrists in refraction work. Where disease conditions exist, however, it is a matter for the medical specialist, and we feel that a change in the law is advisable by the amendment that any child whose central visual acuity cannot be corrected better than 20/30 by lenses, be referred to his physician for examination and treatment. We feel this is sound in principle, and recommend its adoption.

Formation of Community Health Relations Councils. This was recommended by the House of Delegates for study, and after extensive investigation by the members of the Committee, it was found that in many counties of the state coordination of health activities was in the hands of a council of Social Agencies, and through its division on health, the medical work, both preventive and curative, was undertaken with the consent and approval of the County Medical Society. It is the opinion of the Committee that leadership in all health activities should be in the County Medical Society, that it is a matter that rightfully belongs to the Public Relations Committee of each County Medical Society, and where no such coordination is now in effect that it is strongly suggested for local consideration.

Joint Meeting of Legal and Medical Professions by County Associates Once a Year. This was recommended by the House for study. The Committee is in entire accord with the idea that agreeable contacts be made with members of the legal profession in each county. It has suggested that at least one meeting a year be held to which members of the legal profession are invited to attend and to discuss problems of mutual interest to both the medical and legal professions. In this way, a better understanding of the problems of the medical profession will undoubtedly be engendered in the minds of our associates in the legal profession. Many of the County Medical Societies have held such meetings for several years, and have found them not only of friendly interest, but productive of much better understanding. We recommend each County Society to arrange for at least one meeting each year with

the members of the legal profession in that county.

Relationship Between Grievance Committee, Legal Department of the State Medical Society, and Public Relations Committee. This matter was referred by the House of Delegates and applies principally to malpractice cases and the need for classified material, most usual causes for malpractice actions, and the dissemination of such information to the members of the Medical Societies of the State for their guidance and information. The Committee, after considering this very thoroughly, recommended to the Executive Committee the data be assembled with the assistance of the Grievance Committee and the legal division of the Medical Society, and that after approval, it be collated, printed, and sent to members of the State Medical Society. Because of the extreme difficulty in obtaining accurate information on this all-important matter, and having to depend on records of insurance companies, briefs in the Grievance Committee and in the legal department it has proven a very difficult assignment. To be right and informative, it must be thoroughly done, and your Committee feels that further time will be required for actual statistical figures.

Examination of School Children. This matter was referred by the House of Delegates, and was the result of a recommendation that a special committee be appointed to investigate the entire matter of school inspection and in particular to determine whether health matters in the school would be best served by remaining in the Department of Education or whether they should be transferred to the Department of Health. Within the Department of Education, there is a health and physical education division. Under it, some 1,500 school physicians undertake to care for over one million school children. The section on medical inspection is in charge of a physician. The section on physical education has as its function the teaching of dances, games, drills, athletics, and other body-building activities. We recognize the great importance of these latter activities for growing and developing children, but feel that the thorough physical examination either by the school doctor or the family

volving the expenditure of funds and recommend to the Board of Trustees such expenditure, your Board feels that a serious danger threatens. Most of these expenditures have been extra-budgetary and have been in the main due to Committees either exceeding the appropriation made in the budget or demanding an increase over that appropriated because of a presumed emergency. In a large part this has been due to the necessarily hasty preparation of the budget between the end of each annual meeting and the last week in June in order to render funds available to the incoming administration with the beginning of the fiscal year. To avoid this contingency your Board has recommended to the Executive Committee that a tentative budget which will require only minor changes be prepared for submission to the Board of Trustees in April of each year so that a more careful study can be made of the needs and propriety of the expenditures recommended. Your Board believes that the Society can maintain its efficiency and perhaps add to it as well as live within its ordinary income by a more careful scrutiny of the value either actual or potential it derives from certain of its ex-

penditures, not alone to itself as a corporate body of the whole profession but also to its individual members, for whose benefit and that of the public, in the end, lies the sole reason for its existence.

With one exception we refrain from making recommendations to accompany this report, the power does not rest with us. It rests in the House and its derivatives the Council and the Executive Committee to whom we have from time to time made recommendations concerning the matter discussed in this report, the exception we recommend is that

The House of Delegates direct that the Society maintain its expenditures within its ordinary income exclusive of the principal or income from its investments and that this policy be not departed from except by resolution of the House either in regular or special meeting assembled or by referendum vote.

Respectfully submitted,

JAMES F. ROONEY, *Chairman*
 GEORGE W. COTTIS,
 JAMES E. SADLER,
 HARRY R. TRICK,
 NATHAN B. VAN ETEN,

April 1, 1937

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

To the House of Delegates, Gentlemen

The Committee on Public Relations has met monthly during the present fiscal year in an endeavor to properly plan its activities and to care for the various matter brought to it for consideration and adjustment. All members of the Committee have given liberally of their time and effort, and have shown marked enthusiasm in developing the various plans and policies of the Committee. Its sole endeavor has been at all times to place organized medicine in the position of leadership in all matters pertaining to the health of the people of this state. The work of the Committee consists of the regular monthly meetings, conferences with other state committees and groups, specific detailed work for sub-committees, and this year for the first time the Chairman meeting with the Executive Committee monthly at New

York. This latter, I believe, has brought about a better understanding of the problems confronting the Medical Society in the state, it has made for more cooperation between committees, and has prevented duplication of efforts. I think the President should be commended for bringing about this better adjustment of Committee activities.

At the last meeting of the House of Delegates, several matters were referred to the Public Relations Committee.

Care of Children with Defective Eye Sight It would appear, after a careful study on the part of your Committee, that this matter was referred because of objections made on the floor of the House of Delegates to the Reference Committee's report. Optometrists are recognized by the regents of the State of New York, and are licensed after an examination, and given certificates legal-

under this law. The Executive Committee of the Medical Society empowered the Public Relations Committee to continue its good offices in the proper working out of the Crippled Children's Act. An opinion by the Attorney General of the State of New York allows that the Children's Court Act may be construed to include children who are partially deaf on the ground that such a child may be regarded as a physically handicapped child, and may receive the benefits which the state requires to be given to such afflicted children. The Revision Subcommittee has not completed its work. We realize some changes are required to bring it up to date. Some operations are unpopular or not generally used at the present time, and some new ones should be added. Meetings with the State Health and Educational Departments and the Subcommittee are being held. Harmonious relations exist between the Departments and the State Medical Society, and satisfactory agreements are anticipated.

License for Psychologists. The President referred to the Public Relations Committee proposed legislation to license properly trained psychologists as certified psychologists, and on invitation of this Committee several outstanding representatives of the Association were invited to present their claims for licensure. It was brought out they were desirous of securing the good will and friendship of other groups who might be interested, particularly the medical group, before approaching the legislature. The organization has 297 highly trained and experienced members of whom 187 are residents of New York State. Many undertrained, inexperienced individuals are practicing and set themselves up as psychologists. The public has no way of distinguishing between the real and the imitation or untrained and deserves protection. Most of their activities are in schools, hospitals, clinics, and institutions, particularly child guidance clinics. At a later meeting were present by invitation Commissioner Parsons of the Mental Hygiene Department of the State of New York, Dr Israel Strauss, and Dr Lloyd Ziegler—both members of the National Board of Neurologists and Psychiatrists. It was felt by the medical men present

that the proposed bill would encroach upon the Medical Practice Act. After careful study by the members and reviewing the opinions of those present, it was voted not to recommend the bill, and was so accepted by the Executive Committee.

Reports on Patients in State Institutions. It was brought to the attention of the Committee that frequently patients being treated at the State Institute for the Study of Malignant Diseases, Mental Hygiene Hospitals, and in State Tuberculosis Hospitals are sent home and receive little or no care because the physician is unaware of their return, and is not notified by the family. After conferences with Department heads, the Public Relations Committee offered to its Executive Committee the suggestion that for the better and continued care of patients in these state institutions, notice of discharge or parole be given to the family physician or the committing examiners. This will insure continued and correct care for the patient.

Proposed Revision of Rules of the State Welfare Governing Dispensaries. The Public Relations Committee was asked by the State Welfare Department to review proposed new rules governing dispensaries. After thorough discussion, several matters were brought up. The present rules governing the admission of the patient to a dispensary are not stringent enough. The patients need only to be recognized by the person in charge of the dispensary to be admitted. Many times, this admitting person is not competent and it was generally agreed that some principal officer with experience should be in charge of a dispensary. The present law does not permit the entrance of veterans as dispensary patients, but this is not clearly understood, and the following rules governing veterans and their families are for the guidance of all. A veteran according to State Law is not classed as an indigent, and to quote from Public Welfare Law, Art. 14, Sec 117, in part, "Such person when in need of relief and care shall be eligible for Veteran relief, and shall be given relief and care in their home, or if it is not practicable to care for such persons in their own home, they may be committed to a soldiers' home or institution or to

physician is infinitely more important. A new program and bulletin on the administration of school health service has been reviewed by the Public Relations Committee. Many suggestions were made regarding the new bulletin, all, we feel, in the interest of the school child. It is our opinion that more careful and complete physical examinations be made, and as many as possible by the family physician. In this way, physical defects will be found, more corrections made, the child will be enabled to use his school years more fruitfully, and less failures in school grades will occur. It is not always possible or practical for the school child to be examined by the family physician, and in many such instances regularly employed school physicians are doing the work thoroughly and conscientiously and with very satisfactory cooperation from school officials. It is to be hoped that proper and adequate facilities will be furnished for making these examinations in the schools. Many physical defects found will be corrected by cooperation between the physician and parent. The active cooperation of all interested in the welfare of the child is necessary to obtain the best results.

Studies Regarding Hospitals Interns
This was up for study last year, and we found that some hospitals carried men as interns for three and four years, thus preventing many young physicians from taking advantage of this very valuable form of postgraduate education. To quote Dr. Warren, past Chairman of this Committee: "In Massachusetts under the law, graduates of certain schools are licensed but cannot be interns in that state, and that is why they are over here where they can be interns but cannot be licensed."

The studies this committee made of the licensing of foreign graduates in medicine showed they were made up of three groups

- 1 Physicians educated in their native lands who come here and are admitted to the regular medical licensing examinations
- 2 Native foreign physicians who have been in practice for a certain number of years and come here and apply for licenses without any examination
- 3 American students who go to foreign countries for medical education, are licensed

in foreign countries and then return to this country to practice their profession.

The percentage of failures of the first group is very large or about thirty-five per cent.

Regarding the second group, we are informed that after the fifteenth of October, 1936, all have had to take an examination before a license is issued to practice medicine in this State.

Those in the third group are very small in number and rapidly falling off. This speaks well for our American Colleges of Medicine. Our main objection was against the second group and the decree of the Board of Regents has settled the disputed matter.

Physically Handicapped Children's Act
The Public Relations Committee has under consideration a revision of the compensation features of this law because of two important objections: *first*, the lack of uniformity of handling cases in many counties, and *second*, the inappropriateness of the schedule. About eight years ago, the Public Relations Committee was asked by the State Health and Educational Departments to set up a state-wide fee schedule as a guide to the county judges or judges of the children's courts for medical care under the Crippled Children's Law. After exhaustive study, the following principles were established: *first*, that physician should be compensated for the care of the indigent child under the Crippled Children's Law, *second*, that it is the duty of the state to determine who are permitted to receive state care, *third*, that it is recognized that professional work will be done on a minimum basis for care of the indigent, handicapped child, and *fourth*, since no two cases of sickness or injury are alike, fees may only be arranged for immediate conditions, and future compensation must be based on the time and effort expended by the physician. The schedule as arranged was intended as a guide rather than a fee regulation so as to promote a more harmonious administration of the Crippled Children's Act and yet protect the physicians of the state in doing work under this law. It was never adopted by the House of Delegates, and has been used as a guide by the state departments of Health and Education in approval of state aid for medical and surgical care.

Committee, has directed considerable attention to community control and early diagnosis of cancer. The program as outlined by the State Charities Aid Association had no reference to organized medicine, and was discontinued because of opposition of different cancer societies. Regarding the bill introduced in the legislature for the erection of three new state hospitals for the care of cancer, it was the opinion of members of the Committee that while this is a matter particularly for the Health Committee, it had a direct bearing on all members of the medical profession in the state. The Committee felt that the cancer problem is a grave one in this state, that there is extreme lack of coordination on the part of the different agencies working in the cancer field, but with a state budget of 365 millions this year, it did not seem wise or advisable to build three state hospitals for cancer patients when present hospitals could be utilized for their care. A subcommittee was appointed to study this bill, and later were invited by the Health Commissioner to attend a meeting at Albany. Present at the meeting were the Health Commissioner, Dr. Simpson, Director of the Buffalo Institute, Drs. Farmer and Mitchell of the Health Committee, and Drs. Cunningham and Hambrook of the Public Relations Committee. The bill was studied in detail, and some plans were discussed whereby state cancer clinics might be formed in different parts of the state providing, if necessary, radium and x-ray equipment. It was suggested that the cancer institute might be used for postgraduate instruction. This plan would save expensive duplication of hospital facilities. The family doctor would be utilized as he should be in the early diagnosis of cancer cases, and the patient would not have to travel long distances to hospitals for treatment. A commission was suggested to supervise the carrying out of details.

We wish to express to our Executive Officer, Dr. Joseph S. Lawrence, our sincere appreciation for his untiring efforts on behalf of the Committee, and his help and advice on many of the problems discussed by the Committee. To our President, Dr. Floyd S. Winslow and our Secretary, Dr. Peter Irving, we are indebted for wise counsel and advice. The

Subcommittee on the Deaf and Hard of Hearing wishes to express its sincere appreciation to Miss Estelle E. Samuelson whose loyalty and devotion to the work of this Subcommittee has made possible marked improvement in the care of the Deaf and Hard-of-Hearing children. To the chairman of the other standing committees, who have been most cooperative and helpful, the Committee desires to extend its gratitude and appreciation. Finally, the Chairman wishes to express his personal appreciation for the splendid cooperation and untiring effort on the part of each member of the Public Relations Committee. They have been loyal, worked diligently, and have aided in the constructive work of the Public Relations Committee.

Respectfully submitted,

A. J. HAMBROOK, *Chairman*
WILLIAM H. ROSS,
HERBERT H. BACKUS,
ARTHUR F. HEYL,
EDWARD T. WENTWORTH
FREDERIC W. HOLCOMB,
THOMAS H. CUNNINGHAM

April 1, 1937

In Memoriam

The Public Relations Committee of the Medical Society of the State of New York wishes to express its profound sympathy on the death of Dr. Luther Fiske Warren who died in Brooklyn, January 18, 1937. Dr. Warren was the immediate past chairman of the Public Relations Committee, and gave unsparingly of his time and talents to further better relations between the Medical Society and other organizations working in the field of preventive and curative medicine. A former president of the Medical Society of Kings County, he was physician in chief of the Long Island College Hospital and St. John's Hospital, medical director of the Brooklyn Home for Consumptives, and consulting physician at Methodist Episcopal Hospital, Coney Island Hospital, Harbor Hospital, Brunswick General Hospital, and Lutheran Hospital. He was professor of Medicine at Long Island College of Medicine and Chairman of the Board of Medical Ex-

another home or hospital, but no Veteran eligible for relief shall be committed to a public home as defined in this chapter." This has been interpreted to include dispensaries. Patients requesting care in dispensaries or clinics are governed by Sec 296, Chap 55 of the Consolidated State Laws which provide that "Any person who obtains medical or surgical treatment on false representations from any dispensary licensed under the provisions of this article shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than ten dollars and not more than two hundred fifty dollars." Imprisonment until fine be paid may be imposed. No specific cases are known where such has been enforced. It was also suggested by the Committee that the card given to each patient at the first visit should include not only a copy of this law, but also have the signature of the patient on it. Some other minor changes in the rules were suggested, and we feel that with a careful investigation of each case and carrying out the provisions as outlined, many will be prevented from seeking free care at dispensaries or clinics who are able to pay a private doctor for similar services.

Care of the Deaf and Hard of Hearing
The Subcommittee on the Deaf and Hard of Hearing has carried on its work to provide better care for these crippled children. Dr Hambrook representing the Public Relations Committee is Chairman, Dr Leo F Schiff is the other member representing the Public Health Committee. Miss Estelle E Samuelson has been secretary for the four years this Subcommittee has been active. Many problems concerning the Deaf and Hard of Hearing have been studied by this Subcommittee. During the past year, two laws were passed and signed by the Governor which provide for the annual examination of the hearing of all children by scientific methods and under supervision of the State Department of Education. Another law provides an amendment to the health laws of the state requiring the reporting of all Deaf or Hard-of-Hearing children by parent, guardian, teacher, physician, or other interested party to the health officer of the city, town, or village. Suitable instruc-

tion is given by said officer for the proper care of the crippled child. Legislation is being asked this year to provide for lip-reading instruction in the regular schools for children who need this additional aid in order to keep up with their grades, and special classes in the regular schools for children with hearing losses too great to profit by grade instruction unless aided by lip reading, hearing aids, and voice and speech training. The Governor has been petitioned to appoint a commission to study the care of the Deaf and Hard of Hearing and to coordinate and make more active present laws and to formulate such necessary legislation as may seem wise and practicable.

Motor Vehicle Accidents and What the Medical Profession can do to Improve Existing Conditions
Mr T J Fox of the State Motor Vehicle Department was present on invitation to discuss increasing number of deaths caused by motor accidents, and to obtain the advice and opinion of the Medical Society as to how they could cooperate. Some 3,600,000 drivers are licensed yearly in the State of New York. A very cursory physical examination is required. It is generally understood that a relatively large percentage of accidents is caused by a small percentage of drivers. They are the persistently careless or incapable, and are a menace to normally minded individuals. A classification of physical conditions sufficient to exclude from licensure was suggested. It naturally included severe types of blindness, or deaf or hard of hearing, mental conditions, such as, morons, some types of heart disease, and extreme nervousness. More practical eye tests are necessary. No accurate hearing tests are required. Color blindness is often times overlooked. Many accidents are due to the fact that the driver is unable to think and act quickly. A complete physical examination would require additional fees, and might prevent some from obtaining a license.

Legislation to Care for Cancer Patients
In September of the present fiscal year a proposed program for cancer as outlined by the State Charities Aid Association was discussed by the Public Relations Committee. The State Medical Society, through its Public Health

(b) The relations between the Society and the official agencies of Public Health and Social Welfare grow more cordial and cooperative. This condition is fundamental to the development of (a)

(c) We continue to observe the operation of such experiments as the Medical Economic Security Administration for the District of Columbia, at Washington, and the Medical Service Bureau of the Wayne County Medical Society, Detroit, Mich. They are proving their value for the solution of certain factors of the problem

(d) There is also evidence of an increasing number of patients who meet their medical care expenses thru "financed credit" and periodic budgeted payments to banks (The full development of the ideas (c and d) awaits "law revision" (a) to make full accomplishments possible and practicable.)

(e) Voluntary Insurance The Committee has prepared a proposed amendment to the Insurance Law. A similar amendment passed the Assembly and failed in the Senate last year (1936). The Committee has circulated "A Comparison of Compulsory Health Insurance and Medical Expense Indemnity Insurance" which sets forth the general idea of medical expense indemnity insurance and its application to the problem before us. Specific recommendations on this subject have been laid before the Executive Committee

(f) We have not had the time to devote to discussion with proper authorities the proposal of substituting "national health saving" for "Christmas Club Saving." We believe that such change can be accomplished.

4 It is gratifying to observe a trend of retreat by the Foundations from the activities in the propagandizing of undesirable types of "organized medical care"

5 The hazards of a politically controlled "compulsory health insurance system" still hang in the clouds which overcast the future. We hold to the hope that true statesmanship in high places will see the light and not plunge this country's medical service into general demoralization

6 The consideration of the deteriorating influence of institutionalism upon the field of private practice is now in the hands of a special committee. We feel there should be no change in the attitude of organized medicine on this question

7 The Committee finds great satisfac-

tion in the cooperative cordial relations with the United States Employees' Compensation Commission relative to the care of injured workmen. A broad-minded interpretation of their rules and regulations made this field of opportunity open to the profession of our State under terms practically identical to our State Workmen's Compensation Law and to those who have enrolled upon the various County Medical Society lists. This relation became operative early in 1936 for the State except the five metropolitan counties. Within the past two months arrangements have been made to extend this relationship to the entire state. We acknowledge with due appreciation the personal, cordial cooperation of Dr. Paul Stewart, Medical Director of the United States Employees' Compensation Commission at Washington, D C, Mr. C. M. Whipple, State Compensation Officer of Works Progress Administration of New York State, at Albany, and Mr. John F. Overend, State Compensation Officer of U. S. Works Progress Administration for the City of New York. No instance has been brought to our attention where any physician has been unjustly treated, and we are happy to report that in every case where a question has arisen between any physician and this public agency, the settlement has been prompt and satisfactory.

8 This Committee, by instruction of the Executive Committee, considered "Proposition No. 3" of the Booth Committee report. Our recommendations and the action of the Executive Committee thereon will be found in the *NEW YORK STATE JOURNAL OF MEDICINE*, January 1, 1937, page 75. We report here, that, to the best of our knowledge, none of the "hospital insurance" associations have corrected their methods and contracts to conform to this re-statement of Medical Society opinion.

9 By instruction of the Executive Committee, this Committee considered the question of "group practice" by physicians of our Society. Our recommendations to the Executive Committee thereon are herewith quoted: "That it be the expressed opinion of the Medical Society of the State of New York that groups of physicians, practicing as such, should

aminers of the Regents of New York State. He was intensely devoted to his work and to his family. He was a great man not only in his professional career as a physician, but in all the activities of his busy and useful life. By those who knew him best through years of in-

timate association, he was classed as a man of extraordinary brain power and strength of character. His death is a great loss to his family, to the city in which he lived, to the institutions he served so faithfully, and to the Medical Society of the State of New York.

REPORT OF COMMITTEE ON ECONOMICS

To the House of Delegates, Gentlemen

1 The principal feature of our program for the past year has been the effort to carry the active discussion of matters of economic import to the local County Medical Society meetings. This Committee has reached the conclusion that the economic salvation of the profession of medicine will rest upon one of two conditions. Either the whole of the profession must become familiar with medical economics and thus make a general concurrence of opinion possible, or, there must be a delegation of authority to and confidence in a small group which shall have the power to handle our economic relations with other social and organized groups. The following points have contributed to this opinion:

(a) The continued extension of the dole of free medical care to persons and families who are capable of self-reliance is unsound social economy.

(b) The creation of revenues for the financial support of hospitals thru charges for physicians' donated services is inimical to the public welfare.

(c) Medical care has a cost which must be met. Something cannot be created from nothing. Knowledge, training, and experience are not acquired without a cost in money, time, and effort. During the past half century medical standards of education, training, and practice have been increased and consequently costs have been multiplied and must be met. In spite of these difficulties the profession of America has met its obligations.

(d) The vital statistics of our State and Nation demonstrate the abatement of all major causes of death in the young and middle aged groups and our population statistics show an ever-increasing ratio of persons who are in the advanced age group. These mute figures constitute proof of the contribution of the medical profession to American life.

(e) Our profession cannot close its eyes to the fact that our socio-economic environment is changing. Vocationally the people whom we serve are becoming less agricultural, less individualistic, and more industrial and more mutually dependent and regimented. Individually and collectively we must adjust ourselves to these changes. And these adjustments must be made in such fashion that the past achievements will be retained and the progress of our service assured.

(f) The problem is to find a way to retain the quality of medical care and to pay the cost of it. And no solution of the problem can be worked out until and unless all official and other "survey" and "study" boards and committees are staffed with members of the medical profession, proportional to their knowledge, understanding, and interest in the scientific and economic aspects of medical care.

(g) Because of the trends cited above, the financial support of the medical profession has devolved progressively upon a smaller portion of the people, while the burden of such support has continuously increased.

2 In the report of this Committee on Economics for 1935 (NEW YORK STATE JOURNAL OF MEDICINE, April 15, 1935, page 357, section 4) we discussed the development of a program for the solution of this very complex problem. By instruction of the House of Delegates (NEW YORK STATE JOURNAL OF MEDICINE, June 15, 1936, page 953, item 84) we have continued the study of the development of the program outlined.

3 *The Program*

(a) The project of law revision in New York State is essential to a complete correction of wrongs and solution of the problem of maintenance of quality of medical care and proper financial support thereof. Informal discussions have been continued with satisfactory encouragement but the time has not been right for pressing this issue to legislative action.

REPORT OF COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

To the House of Delegates Gentlemen

Your Committee on Public Health and Medical Education begs leave to submit the following report for the current year, 1936-37

In the files of the Committee are the annual reports for the last seventeen years, excepting that of 1925. A perusal of these reports shows that the Committee on Public Health and Medical Education has made definite progress each year. Important activities at present include (a) the initiation of health activities, (b) cooperation with county societies in expanding health programs, (c) cooperation with governmental and other health groups, (d) improvement of medical practice through postgraduate education.

Graduate Education

As has been frequently mentioned in former reports, graduate education of the practicing physician constitutes the greatest single contribution which the medical profession can make to public health. Postgraduate education is a necessary activity in public health work, and it has received special emphasis in the Committee's work this year.

The following is a report of the graduate courses which either have been given, or will be given by the State Society for county medical societies during the current year.

* Cayuga	Internal medicine
Cattaraugus	Obstetrics
Chemung	Syphilis
Clinton	Internal Medicine
Columbia	Subject not determined
Franklin	"
Greene	"
Jefferson	Obstetrics
Madison	Subject not determined
* Monroe	Internal Medicine
* Rockland	Obstetrics
St. Lawrence	Subject not determined
Steuben	"
Sullivan	Orthopedics
Tioga	Internal Medicine
* Wayne	Internal Medicine

* Course has been completed

Owing to the early date at which time this report must be submitted, no detailed report can be given on these courses. Many of the courses will not start until shortly before the time of the State Society meeting, and it is probable that others will be arranged which will not be completed until after the annual meeting. There are no features regarding the Committee's program of graduate education for the current year which require particular comment. The list of courses available to county medical societies has been revised somewhat, some of the older courses being eliminated, others changed, and new courses added. It should be noted that most of the county societies continue from year to year to have courses. It can readily be seen from this statement that graduate education is a prominent feature of the work of these societies. The courses have been universally well-received and the work has progressed harmoniously. There has been excellent cooperation on the part of the county medical societies, and the lecturers have been most capable and kind in their willingness to serve.

Public Health

It has already been emphasized that the Committee is interested in expanding present activities and initiating new ones in public health work. This attitude has been praised by governmental health officials. The Committee has received assurances from county medical societies that its efforts and harmonious cooperation with other health groups have been approved.

The Committee has centered its major attention on the problems of Pneumonia, Maternal Welfare, Child Hygiene, Cancer, and Syphilis. As in the past, sub-committees have been created within the Committee for each of these subjects, excepting Syphilis Control. The personnel of these sub-committees has continued largely the same, with the principal exception of the sub-committee on Child Hygiene, where Dr. Edward J. Wynkoop, a new member of the Committee,

remain within the same framework of restrictions as to their conduct as though the activity were that of an individual physician. In other words, we feel that a group may not obtain publicity, by any means, in lay publications, that it should not solicit or advertise, that it should not claim superior quality of service and it should not practice competitive fees against the individual physicians of the community. If the group conforms to this and relies solely upon the recognition of its service by the people of the community as its sole means of acquisition of patronage it would seem to be a proper and fair activity. On the other hand, if the group by subterfuge courts the patronage of the community by enjoying any form of publicity, it would seem to us that each member physician should be considered personally guilty of misconduct." This expression of ethical principles was adopted by the Executive Committee at its meeting, January 14, 1937.

10 We now recommend that such statement of principle be adopted by the House of Delegates and that it be extended to apply to all hospitals and other institutions where medical treatment and/or diagnosis is rendered.

11 In compliance with the expressed and implied instructions of the House of Delegates, and responsible officials of the Society, this Committee has refrained, during the past year, from issuing periodic bulletins, etc., to the officers and committees of the County Medical Societies.

12 The Committee has wholeheartedly cooperated with the administrative officers in the promotion of their objectives. We now have in preparation a review of the past six years of work by this Committee. When this manuscript is properly assembled and indexed it will be submitted to the administrative office of the State Medical Society.

13 We conclude this report with an unqualified endorsement of the report of the special committee on revision of Constitution and By-Laws. The need of revision of the administrative machinery of the Society has been outstandingly evident to this Committee since its first meeting in 1931. At that time we were without guidance as to scope and range

of our proper activities, and without reasonable cooperative contact with other committees of the Society. Group concerns cannot be successfully and fully served by segregated autonomous committees independently engaged. There must be greater unity of thought and action.

14 The organized medical profession cannot retain its place in the present changing social environment without some adjustment of its administrative machinery to present conditions. Granted, for the sake of argument, that some details have not been thought through to perfection, we still feel that the recommendations of the Special Committee on Revision of the Constitution and By-Laws could well be adopted without essential change. This would represent such a definite improvement over the present structure of administration. Experience may well be the guide to the further development or correction of details. We believe that the "balances and checks" have been well designed. Under the plan proposed, we are sure that our collective or group interests will be served better than ever before. We urge support of the recommendations of Dr. Mitchell's special committee.

15 Again, we acknowledge with sincere thanks, the receipt of great encouragement and help from our friends in neighboring states who have provided this Committee with their bulletins, publications, and personal letters of comment on economic matters.

16 We conclude with sincere thanks to the officers and members of the other committees of the Society whose friendly cooperation we have enjoyed.

Respectfully submitted,

FREDERIC E. ELLIOTT, *Chairman*
 CHESTER O. DAVISON
 JOSEPH P. GAREN
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April 1, 1937

monia Control of the State Department of Health calls for particular acknowledgment. Summing up the Committee's activities in the field of pneumonia control, it is apparent that the greatest need from the standpoint of the State Medical Society at the present time is the participation in this work of active public health committees in county medical societies.

Maternal welfare Twenty-nine county medical societies have appointed maternal welfare committees. While this represents only about half of the county medical societies, and only a small increase over the number as reported last year, nevertheless there has been a decided increase in the effectiveness of the committees of some county societies which should prove stimulating to other county societies. Maternal mortality studies have been made in Erie, Monroe, and Westchester Counties, and a similar study is being made in Onondaga County. Reports of the studies in Erie and Monroe Counties have been published in their respective bulletins. Postgraduate courses in Obstetrics have been given in Cattaraugus, Jefferson, Rockland and Onondaga Counties. The latter course was sponsored by the local county society. In order to hasten the organization of maternal welfare committees in all county societies, and to make them active a group of obstetricians have been asked to act as advisors to the Committee and aid in the organization of this work in their districts. This group has met once with the sub-committee on Maternal Welfare. As a suggested program for county medical societies, the State Committee is prepared to offer postgraduate lectures in obstetrics, a supply of proper forms for the study of maternal deaths and pamphlets outlining the minimum standards of prenatal care for lay distribution. It is felt that the committees of county societies should study the need for prenatal care within its own county and the methods for conducting these clinics as well as the proper organization of obstetrical services in hospitals. The State Department of Health has promised to finance at least part of the work in postgraduate education, in obstetrics, and has offered statistical service in connection with maternal mortality studies. It is hoped that the Department will also undertake the publication of pamphlets for lay distribution, either formulated or approved by this Committee. A conference of the chairmen of maternal welfare committees of county medical societies will be held in connection with the annual meeting of the State Society. Representatives from the above men-

tioned counties will report on their maternal mortality studies and welfare programs at this conference. These reports will be included in a more detailed supplementary report from our Committee, similar to that on Pneumonia Control which was published last year. It is again emphasized that the most apparent need in connection with our work in maternal welfare is the organization of active committees in county medical societies.

Child hygiene Every county society has been informed of the increased governmental funds made available in the State Department of Health, through the Social Security Act for use in Child Hygiene work. This information was announced in a letter of October 26, 1936, and each society was urged to make plans for directing this work in its own county. A letter to the sub-committee from Commissioner Godfrey of the State Department of Health, outlining the Social Security Act as it affected New York State, was published in the February 15 issue (p 435) of the NEW YORK STATE JOURNAL. A copy of this letter was also sent to every county society by the sub-committee on January 27, 1937. Acknowledgements have been received from the following counties: Clinton, Kings, Nassau, Oneida, Onondaga, Queens, Richmond, Rockland, St. Lawrence, Tompkins, Westchester, and Wyoming. It is difficult to develop a definite program on Child Hygiene suitable for all counties. Consequently the sub-committee has planned to hold regional meetings in order to discuss these matters with representative physicians in the various districts. The sub-committee has had one meeting in Albany and is planning for future meetings in other districts of the State. Again the most important need for effective work in Child Hygiene is organization of effective committees in county societies.

Cancer control This sub-committee has been organized during the present year. Cancer control was reported on by a special committee of the House of Delegates at the 1931 annual meeting, after which time, this activity was delegated to the Committee on Public Health and Medical Education. The policies and plans embodied in that report have formed the basis of activity for the Committee since that time. The sub-committee is continuing its activities from that point. The sub-committee has held three meetings, to one of which a group of physicians particularly interested in this subject were invited. In addition officials from the State Institute for the Study of Malignant

replaced Dr Fairfax Hall, who found it impossible to serve on the Committee. This plan of having sub-committees has proven efficient and economical. The sub-committees have met as occasions required. Physicians, not Committee members, who, because of their particular activities, are qualified to advise on particular problems, have attended the sub-committee meetings. The sub-committees have reported their activities to the whole Committee for final approval. Thus, it has been necessary for the entire Committee to meet only twice, once before the Council meeting, and once recently before the annual meeting. Dr Schiff has been delegated to represent this Committee on the Joint sub-committee on the Deaf and Hard-of-Hearing. The sub-committee on Preventive Medicine, consisting of Dr O W H Mitchell, chairman and Dr Greene and Dr Whipple has been continued.

Pneumonia Control. The Pneumonia Control program sponsored by the State Department of Health, the State Association of Public Health Laboratories, the Metropolitan Life Insurance Company, the Commonwealth Fund, as well as the State Medical Society has progressed most satisfactorily. Our Committee published a detailed and informative report on this subject in the *NEW YORK STATE JOURNAL OF MEDICINE* (July 15, 1936, pages 1053-63). This activity of the State Society has elicited much commendation. In his address before the annual conference of the Secretaries of Constituent State Medical Associations of the American Medical Association, in Chicago, in November 1936, Dr Thomas Parran, Jr, the Surgeon-General of the United States Public Health Service described how this work in the State of New York was started by the State Medical Society, and described the liaison between the State Medical Society and the State Department of Health as "a fine example of mutual cooperation in the solution of a problem which could not be handled by the doctors working alone or by the health department working alone." The Pneumonia Control Program is being extended to the City of New York, under the direction of a local committee of which Dr Russell Cecil is chairman. This program has received the hearty endorsement of the New York County Medical Society and the New York Academy of Medicine.

Because of differences between New York City and the rest of the State, this is, ap-

parently, the best method of dealing with this situation. On January 1 of this year, the State Department of Health began to supply gratuitously to physicians anti-pneumococcus serum for Type II pneumonia. Only Type I serum had been supplied before. A program on pneumonia control has been formulated and sent to county medical societies. Briefly this program included suggestions as to topics for medical meetings, availability of laboratory service, cooperation of hospital staffs, reports from physicians of cases where serum has been used, reports of interesting cases treated with serum, consideration of nursing service, education of the public. A letter has been sent to the State Hospital Association requesting the cooperation of the management of hospitals in this program. Five county medical societies have arranged scientific programs dealing with pneumonia during the current year, bringing the total up to date to thirty-seven. It is hoped that before the end of the current year all county medical societies will have had at least one program dealing with this subject. A hand book on the "Nursing Care of Pneumonia" has been prepared under the joint auspices of the New York State Nurses' Association, the New York State Department of Health, the General Advisory Committee on Pneumonia Control of the New York State Department of Health, the Nursing Advisory Committee to the Bureau of Pneumonia Control of the New York State Department of Health and the Committee on Public Health and Medical Education of the State Medical Society. This hand-book has been distributed to every Registered Nurse in the State. The interest manifested by various nursing organizations and departments has been greatly appreciated. Attention is directed to the prize of one hundred dollars offered through the Advisory Committee on Pneumonia Control of the State Department of Health for the best report of a series of cases on pneumonia. Announcement of this prize was made in the February 15, and March 1 issues of the *NEW YORK STATE JOURNAL OF MEDICINE*. Frequent references to the Pneumonia Control Program have appeared in our *NEW YORK STATE JOURNAL*. It is realized that so far our work has only been a beginning and there is still much to be done in this program. During the year 1936, only fifty per cent of hospitalized cases of pneumonia had bacteriological examinations. It is evident that there must be some cases suitable for serum treatment where this therapy is not carried out. The cooperation and aid of Dr Edward S Rogers, Director of the Bureau of Pneu-

The Committee wishes to acknowledge the cooperation received from the President and Secretary of the State Medical Society, the members of the Executive Committee and the other committees. It is also appreciative of the aid which has been given by the various physicians in

the way of advice and support. The chairman is deeply grateful to the members of the Committee for their continued and active service.

Respectfully submitted,

THOMAS P. FARMER, M.D., *Chairman*
April 1, 1937

REPORT OF COMMITTEE ON ARRANGEMENTS

To the House of Delegates, Gentlemen:

The Medical Society of the County of Monroe, the Rochester Academy of Medicine, and the City of Rochester welcome the opportunity to entertain the Medical Society of the State of New York at its annual meeting on May 24, 25, 26, and 27.

We consider ourselves most fortunate in having secured the magnificent Chamber of Commerce building which will be adequate to house our scientific meetings in exceptional comfort, as well as take care of all of the exhibits. It is centrally located at 55 St. Paul Street, just a few steps from Main Street, and in close proximity to all of the leading hotels.

The scientific program will be one of the finest that has ever been presented at an annual meeting. Both the general practitioner and the specialist will find plenty of new material here, thus compensating and justifying his attendance at the Rochester convention.

The scientific exhibits will be of their usual high quality, and great care has been exercised in the selection of the commercial exhibits.

Through the courtesy of the University of Rochester we will have the use of the Eastman Theatre for the Wednesday night public meeting. The theme of this meeting is "The Relation of Photography and Motion Pictures to the Science and Practice of Medicine." Our committee has developed a program that will be long remembered.

This year we have deviated slightly from the program of other years and have planned a fourth day of entertainment. For those interested in golf, the facilities of the Oak Hill Country Club will be available. This club has two of

the finest eighteen-hole golf courses in the United States. The Lilly trophy will be competed for by the various academies of medicine, and, in addition, many other individual prizes have been donated, and will be available in competitive matches of sundry types.

For those not interested in golf, arrangements are being made for visits to the research laboratories of the University of Rochester Medical School and to the five other Rochester hospitals. The executives of the many industrial concerns located in Rochester, famous throughout the world for their manufacture of scientific apparatus and materials so essential to the practice of medicine, are enthusiastic concerning the convention and extend a hearty welcome to the doctors to visit their plants.

The Ladies Entertainment Committee has arranged a program for the wives which is full of interest and promises to give them much pleasure. In addition, they are cooperating with the Woman's Auxiliary of the Medical Society of the State of New York, so that the only ladies we cannot guarantee a grand time during the convention will be those who remain at home and do not even give us a chance to demonstrate what Rochester hospitality really means.

Our banquet committee has secured speakers of prominence and of great appeal. The Chamber of Commerce has the largest and finest banquet hall in the city, and we expect to fill it to capacity. Spring flowers, soft music, fine cuisine, stimulating speakers—all to be followed later by dancing to music that will make one forget all care—leads us to believe you can't afford to remain away.

The hotel committee stands ready to give assistance to those who are not

Disease and officers of the State Committee of the American Society for the Control of Cancer were invited. The Committee has communicated with each county society, requesting that the subject of cancer control be delegated to some already existing committee, or a special committee appointed for this purpose. Such arrangements have been perfected in fifteen county societies. Subjects suggested for consideration by these committees include the following: One regular or special meeting of each society to be devoted each year to the subject of cancer, to which the members of the dental profession shall be invited, establishment of consultation clinics, by and under the auspices of the county society, for service to the indigent patient, as well as for the purpose of post-graduate education for the physician, organization of a list of speakers properly qualified to give talks on cancer. The sub-committee has invited the chairmen of county committees to seek special counsel when needed and to request periodic reports on the progress made in county societies. In any of these programs the cooperation of the New York State Committee of the American Society for the Control of Cancer should be requested, and maintained, as has been the custom in the past. At a meeting of the sub-committee with the group of advisors, it was suggested that instruction regarding cancer in medical colleges might be more effective by giving a course on neo-plastic diseases. The Committee expects to confer with the deans of the medical colleges of the state regarding this matter. The success of a program on the part of the State Society will depend upon the organization of active committees in county medical societies.

Syphilis control There are no special matters to be reported as regards Syphilis Control. A member of the Committee, Dr Mitchell was delegated to attend the conference called in Washington on December 28-30, by the Surgeon-General of the United States Public Health Service. Judging from the program adopted at the conference, apparently the work of the Committee a year ago had fulfilled all the purposes, so far as New York State was concerned. A questionnaire regarding this matter submitted by the Surgeon-General has been answered. A series of graduate lectures on Syphilis has been arranged, to be given in Chemung County, and will be repeated in other counties when requested. The purpose of this course of lectures is to provide the general physician with information which will prepare him to participate in the present nationwide campaign to control this disease. It is advisable that the public

health committees of all county societies inform themselves of the program of the State Department of Health regarding syphilis control, and of the action taken by this Committee in regard to that program, which was approved by the council of the State Medical Society.

Nursing education The sub-committee on nursing education met in Albany on January 9 as guests of the directors of the New York State Nurses Association. The subject was the new bill about to be introduced to amend the nurse practice act in this State (the so-called Esquirol Bill, No 368). Present were Drs Peter Irving, Joseph Lawrence, Clayton Greene, and Homer L. Nelms, chairman of the Legislative Committee. The bill was read in its entirety and each portion was discussed. It was pointed out that a strict interpretation of the definition of nursing would prevent orderlies in hospitals from giving an enema and similar procedures. There was considerable discussion of the best term to use for the second grade of nurse. The bill proposes nurses' aide, but it was suggested that domestic nurse be considered as a substitute. In general the subcommittee felt that the bill was a proper one and designed to improve the character of nursing service provided for the people of New York State. This report was accepted by the Committee.

General Comment

The Committee has aided county medical societies in the preparation of their scientific programs, and has advised with societies regarding their local public health programs. During the current year, the Committee has again supplied information to other state medical societies regarding its work in graduate medical education. A questionnaire received from the American Medical Association requesting detailed information as to the activities of the New York State Medical Society in graduate education has been answered. The Committee has recommended to the Executive Committee that they request the State Department of Health to issue to each new licensee in medicine a circular of instruction regarding registration of new licenses and annual re-registration of physicians as well as the preparation of a pamphlet containing information essential for every physician regarding the Public Health Law and the Sanitary Code.

REPORT OF COMMITTEE ON LEGISLATION

To the House of Delegates, Gentlemen

As this is written the Legislature has not yet adjourned. The report, therefore, covers our activities, observations, and recommendations to date only and is subject to such further modifications as the changing panorama of legislative activities demand. A brief supplemental report will be issued at the close of the legislative session.

The present Legislative Committee came into existence before the 1936 session of the Legislature had actually closed. Adequate study and mature deliberations had already been given to pending bills by the previous Committee so that no change of policy was thought necessary nor desirable.

Our Committee has carefully reviewed the mandates of the House of Delegates and made an honest effort to follow not only the spirit but the letter of your instructions to us. We have also carefully studied the matters referred to us by the Executive Committee and rendered reports which we believe are in keeping with sound professional and public policy.

Licensing of Foreign Physicians

One of the first major problems to engage our attention was the excessive number of foreign physicians that were being licensed by endorsement in New York State. In anticipation of legislation correcting this evil, we made a study of the problem. During the five-year period, 1931 to 1936, 843 foreign physicians were licensed in New York State and 478 in thirty-six other states studied. Of the 843 licensed, 364 were licensed without examination by endorsement of their license under Section 51 of the Education Law. Without detailing the extent of our activities, let it suffice to say that the Board of Regents, in full appreciation of the problem, adopted the following ruling on September 21, 1936:

That on applications filed after October 15, 1936, no license issued by a legally con-

stituted board of examiners in any foreign country shall be endorsed, pursuant to the provisions of Section 51 of the Education Law, until the applicant shall pass the licensing examination prescribed by law or Regents' rule.

This ruling brings to an end the licensing of foreign physicians by endorsement without examination, therefore, it would seem that one phase of the foreign physician problem has been solved by administrative action and without the necessity of immediate additional legislation.

Basic Science Law

We have carefully considered the desirability of a so-called basic science law whereby all applicants for licensure to the healing art be required to pass examinations in certain fundamental sciences which are designated as basic. The Committee feels that the provisions of our Medical Practice Act should be considered the basic requirements for licensure to practice the healing art. However, in those states which license chiropractors, naturopaths, naprapaths, and other cults, basic science requirements are highly desirable and effective. There is no need of a basic science law in this State at this time.

Administration of Anesthesia

The last session of the House of Delegates adopted the following resolution on the subject of anesthesia:

That the proper committee of the Medical Society of the State of New York be directed to draft and promote at the 1937 session of the New York State Legislature a bill to limit the administration of anesthesia to duly licensed physicians and dentists, except in cases of emergency.

Mindful of the fact that a bill covering these features was introduced and failed of enactment two years ago, your Committee gave prolonged and serious consideration to this question with a view of crystallizing professional and lay support for its enactment. We interviewed leading anesthetists of the State who are

able to secure adequate accommodations. In this connection we urge physicians whose wives are members of the Woman's Auxiliary of the State Society to secure reservations at the Hotel Seneca as early as possible, as this hotel is to be the headquarters and meeting place of the Woman's Auxiliary.

We promise to leave nothing undone that will contribute to the enjoyment of our guests. We know that the State Society commands your loyalty, the scientific program and exhibits will have your respect and arouse your interest, the commercial exhibits will deserve your attention, and certainly a fourth day of

relaxation will bring joy to the hearts of all who participate.

The headquarters for the meeting will be the Hotel Seneca.

Again let me urge you to secure reservations as soon as possible. Rochester is going to have a great meeting. Put "May 24-25-26-27 ROCHESTER" on your schedule and plan now to let nothing interfere with your coming. *We are looking for you!*

Respectfully submitted,

LEO F. SIMPSON, *Chairman*

April 1, 1937

REPORT OF COMMITTEE ON SCIENTIFIC WORK

To the House of Delegates, Gentlemen

The Committee on Scientific Work has held two sessions at each of which the attendance was satisfactory.

The programs prepared by the various sections we believe to be of unusual merit and particularly to be commended for their well balanced character.

The Committee on Arrangements has provided rooms for all sections under one roof, the Rochester Chamber of Commerce Building, which will also house the general sessions, technical exhibits and the House of Delegates.

On account of the natural limitations in space giving a comparatively small area for the scientific exhibit, it was the decision of the Committee to invite the Rochester School of Medicine and Dentistry to take over the major portion of that space for a group of scientific educational exhibits which are of unusual value and will be found listed in the printed program.

The motion picture theatre exhibit with a continuous display of medical films in monochrome and in color, as arranged for the New York meeting and which aroused so much interest is being continued and expanded. Dr. Clarence V. Costello is in charge of the entire Scientific Exhibit and has been ably assisted in many of the details of the motion picture display by Dr. John Henderson, a member of the

Advisory Committee on Exhibits.

For the general sessions we are indebted to Dean George H. Whipple of Rochester for his activities and advice in the arrangement of the symposium on "The Blood," and to Dr. Byron Stookey for his assistance in arranging the symposium on "The Relief of Intractable Pain."

We are particularly indebted to the President of the Society, Dr. Floyd S. Winslow, for his invaluable assistance and remarkable ability to pour out the resources of his home city toward the making of a grand meeting.

On the evening of May 26 there will be a combined session of popular and scientific interest sponsored by the Committee on Arrangements and the Committee on Scientific Work which I am sure will prove interesting because of its novelty and excellency.

For the fourth day a recreational program has been arranged and opportunity will be given for visiting various hospitals and the industrial plants where the manufacture of apparatus and paraphernalia used in scientific work in the practice of medicine has reached such high development.

Respectfully submitted,

WILLIAM A. GROAT, *Chairman*

April 1, 1937

COMMITTEE ON LEGISLATION

April 15, 1937

That the Executive Committee rescind the action taken on February 20, 1936 that the Committee on Legislation be instructed to oppose the passage of Assembly bill Int. 919, by Mr. Moran, to amend the insurance law to permit operation of a non-profit indemnity service which will furnish money, on specified conditions, for the payment of expense of needed medical care, and instruct the Committee on Legislation to approve the bill as amended.

The Moran bill of 1936 failed of passage. Realizing that similar legislation would probably be introduced in 1937, Dr. Lawrence and your Chairman visited Brattleboro, Vermont on November 7, 1936, where such a system was said to have been in successful operation for a number of years. Details of this study were submitted to a special committee under date of February 1, 1937.

In view of the material before us, the Legislative Committee recommended the disapproval of enabling legislation that would permit the formation of a non-profit medical indemnity service in this State at this time.

Certain features of these proposals are commendable. The sponsors are no doubt actuated by the highest motives. However, their adoption carries with them certain inherent dangers which must be diligently kept in mind. There is always danger that a voluntary scheme of this type will ultimately become compulsory. We are reliably informed that many of the compulsory types of health insurance abroad began first as voluntary units. Such a transition may be made necessary by poor management of the local unit so that the state is ultimately compelled to take it over, or political parties seeking popular issues present it to the public under the caption of "Something for Nothing" and thus are carried to victory.

Any insurance scheme to survive must be on an actuarial basis unless its funds are supplemented by the state or by charity. Actuarial determinations mean rate fixing and in its final analysis fee regulations for services rendered, in other words, a fee schedule. Rather than vigorously support such hazardous proposals, would it not be far better to send out our cry for higher wages and a higher stand-

ard of living, so that the low income group can buy on their own volition not only needed medical service, but the other necessities and comforts of life as well? In view of the fact that additional legislation is necessary before any type of health insurance could operate in this State, whether sponsored by us or by other groups, we make the following specific recommendations:

1 We recommend that studies along the lines of voluntary health insurance be continued,

2 That in the future funds allotted be designated for study only and in no sense be used either directly or indirectly, or by implication, for the purposes of propaganda or in any way supporting, either openly or otherwise, any type of voluntary or compulsory health or indemnity insurance, by whatever name known, either within or without the profession, until the matter has been formally adopted by the House of Delegates, either in regular or special session, as the stated policy of this Society. We further recommend that all officers and committees be held to strict accountability for the faithful carrying out of these provisions.

Conference of County Society Legislative Chairmen

Our annual conference of legislative chairmen was held in Albany on February 12, 1937. Thirty-five County Societies were represented. We also had the members of our Advisory Committee at this conference. This was one of the largest conferences that was ever held and is indicative of the interest that our members have taken in legislative work. We carefully reviewed all the bills presented up to that time and were able to secure a good cross-section of opinion on legislative matters. It is recommended that these annual conferences be continued.

Legislative Bulletins

We have 339 persons on our bulletin list. These include officers of the State Society, members of County Society Legislative Committees, members of our Advisory Committee, the legislative chairman of the Women's Auxiliary in each county where these organizations exist. We also

members of the State Society and represent state and national associations on anesthesia. We consulted with the chairman of the new Session on Anesthesia of the State Society, and also many physicians at random throughout the State. We investigated the situation of the nurse anesthetist in California, especially the legal opinion carried to and sustained by their highest courts on this subject. A complete report of our findings was presented to the Council under date of December 7, 1936. You will recall that by referendum vote you have relieved us of sponsoring this type of legislation at this time.

We heartily approve the action of the House, but realize that it is based on a question of expediency and is not a true solution of the problem. The Legislative Committee is in entire accord with the principle that anesthesia should be developed as a special branch of medicine. We believe that true progress in this field can come only through original observations and research by medical men. From a scientific standpoint we believe that real progress is being retarded because this field has been taken over by others. We recommend that the Medical Society of the State of New York, through all its agencies—educational, scientific, and publicity—stress the scientific phase of the practice of anesthesia, encourage and sponsor facilities by which physicians can equip themselves to assume the growing responsibilities which the administration of not only the older, but also the newer anesthetics impose upon us. Thus done effectively, the proposed legislation will then stand a better chance of enactment.

Medical Expense Indemnity Insurance and Other Health Insurance Proposals

Second only to spiritual developments is the maintenance of health and the well-being of our people. Realizing this fact, it is but natural that attempts should be made from time to time to improve public health and relieve economic distress by changing the method by which medical service is rendered. Some of

these ideas have crystallized in the form of compulsory health insurance measures, and this year there have been in the National Congress and also in the New York State Legislature, compulsory health insurance bills. The Socialist Party had a plank in their 1936 platform favoring free medical service on the same basis as we now have free education supported by taxation. We recognize that health is not dependent entirely upon the quantity nor the quality of medical service rendered in time of sickness. Intimately associated with this problem is the question of hereditary and environmental factors, proper housing, adequate food, regulating the hours of labor, a better understanding of the fundamental rules of personal and public health, and the scientific application of a host of other commendable social and economic principles.

Insurance alone is not a panacea for these ills. We have the experience in certain quarters abroad whereby the profession has been demoralized and the quality of medical service lowered by excursions into the field of compulsory health insurance under political domination.

With these things in mind, we have consistently maintained the traditional professional opposition to all such proposals, and it is highly improbable that the bills introduced will even get out of committee this year. Fortunately, the groups sponsoring these proposals have not as yet been especially vocal in legislative halls.

Closely allied, and as part of the larger picture, are the various voluntary schemes devised to relieve the economic distress of the profession and spread the cost of medical care on a group basis to low income groups. Whether this be created as a mutual aid association, medical expense indemnity insurance, non-profit indemnity service, or by any other name that has been or will yet be devised, it is essentially a form of health insurance. The question came directly under the jurisdiction of the Legislative Committee by action of the Executive Committee under date of April 28, 1936, and which reads as follows:

COMMITTEE ON LEGISLATION

April 15, 1937

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send the bulletins to other interested groups. The bulletin gives a brief description of the bills, together with what relative comments we think necessary or advisable. To date ten regular and five special bulletins have been sent out. Printed copies of bills are sent to the legislative chairman in each county and also to members of our Advisory Committee and other interested persons. Individuals receiving the bills and bulletins are asked to comment and in this way we get additional information which materially assists us in determining policy. On particular questions involving special subjects, we call on distinguished members of the Society for their opinion and help in interpretation of pending or proposed legislation. We are very appreciative of the help received from these special sources, not only for its completeness, but for the readiness with which it is given.

To date 160 bills have been introduced affecting the profession either directly or indirectly. We have vigorously supported legislation which would make our Medical Practice Act consistent by removing provisions for any further licensure of physiotherapists. We have also sponsored a lien bill, an advertising bill, an injunction bill, a bill correcting certain evils in the field of radiology, and at the moment are vigorously opposing the osteopathic bill. This bill would considerably enlarge the scope of osteopathic practice, permitting major surgical procedures, the administration of anesthesia, narcotics, antiseptics, vaccines, and antitoxins, and on careful analysis would have far-reaching consequences. A detailed report on all the bills would be impractical at this time. Our action is recorded in the various

bulletins sent out from time to time and which are reported in the several issues of the JOURNAL.

Congressional Activity

We have made a special effort this year to keep in touch with legislative activities at the National Capital. This is done through the Legislative Bureau of the American Medical Association and by direct contact with individual Congressmen. It is hoped that our activities in this field can be continued and enlarged.

We can not conclude our report without paying special tribute to the help of Miss Briggs in the Legislative Bureau and our Executive Officer, Dr. Joseph S. Lawrence. Dr. Lawrence has learned much during his years of intimate contact with the Legislature and the profession, and has acquired a legislative background developed only by experience and unselfish devotion to his work. We are all better because of the service he has rendered.

This brief resume is but an inkling of the amount of work actually done by the Legislative Committee. Meetings have been held, telephone conferences arranged, work detailed by individual members of the Committee, much of it in the form of effort that can not be reduced to hours of time nor pages of a written report. If our activities have saved you from some of the bad laws you might have had, and given you even a few of the good ones you ought to have, we feel that our efforts will not have been in vain.

Respectfully submitted,

HOMER L. NELMS, *Chairman*

April 1, 1937

COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

To the House of Delegates, Gentlemen:

In compliance with your instructions, the Committee on Revision of the Constitution and By-Laws herewith submits its report for your consideration.

Relatively few members of the Medical Society of the State of New York will have the time for a detailed study of the proposed Constitution and By-Laws. Therefore the Committee on Re-

vision calls attention to some of the most important changes proposed with reasons for such changes.

The proposed change of most importance concerns the central governing body. At present there is a Council composed of the following: (a) officers of the Society, including the Presidents of the District Branches as Councilors, (b) chairmen of the standing committees, (c) the retiring President for a term of one

REVISION OF CONSTITUTION AND BY-LAWS

year after his term of office expires. Ordinarily the Council meets but twice a year and the constant changing of membership is most unfortunate. Regional representation is assured by Councilors (District Presidents), but short tenure terminates too soon the services of many valuable officers.

The Executive Committee is composed of five of its members chosen by the Council, three of whom must be Councilors (District Presidents), in addition to the President, President-elect, the Secretary, the Treasurer, and the immediate Past President. Again membership is constantly changing after short tenures of office.

In order to carry on the numerous activities of the Society there are many Committees. The present standing Committees total a membership of fifty-five and provision for them to coordinate their work as it should be is one of the pressing needs of the Society.

There should be the closest association between those who control the purse strings and those who are responsible for the activities. A plan whereby a finance committee is a part of the governing body ought to improve this relationship. It is realized that objections to this proposal will quickly come to mind. Remember—this is the Medical Society of the State of New York and not a government authority. Surely a Medical Society like ours does not need the checks, balances and intricate management required for public funds.

The above are some of the problems with which the Committee on Revision has been concerned. As a result of the study, it is proposed to have a central governing body designated as a Council of Trustees which will replace the present Council, Executive Committee, and Board of Trustees and will be empowered to create small committees (at least one member of each shall be a Trustee) to replace the present Council of Trustees. The membership of the proposed Council of Trustees is to consist of the President, President-elect, the immediate Past-President, the Treasurer, and fifteen Trustees elected for five year terms. District Presidents who at present are Councilors during their presidential terms will be District Delegates in the

proposed plan and represent their Districts in the House of Delegates. This consolidation will increase efficiency and should decrease operating costs.

How the Society has operated so many years without a full-time secretary is a cause for wonderment to those who know it and probably a great surprise to those who have not known it. Those in charge of the Society's business realize the need of such an officer and it is the belief of the Committee that the entire membership will favor the creation of such an office which is to bear the designation, Director of Activities. It will cost more money for his salary but it will be worth it because it will result in savings elsewhere and will increase efficiency.

The proposed Associate Director is not a position necessitating increased expense. It is a change in name from the present "Executive Officer."

The Committee on Revision earnestly requests serious study by the members of the Society of the proposed Constitution and By-Laws. The Committee is not looking for a 'vote of confidence' nor does it propose to harangue the members in order to justify its proposals. It submits the results of the study and realizes that there must be mistakes and imperfections. It is expected that valuable suggestions will be made before an instrument wholly satisfactory is adopted.

Dr Chas Gordon Heyd was chairman of a committee known as the Committee for Study, Survey and Consolidation of Executive Offices which reported to the House of Delegates, April 27, 1936. This report closed with the following paragraph: "The administering of the affairs of the Society under the proposed changes indicated above would be carried on with a material saving in costs and a marked increase in effectiveness of purposes of organization." The Committee on Revision hopes that the plan submitted will bring these desired results.

Respectfully submitted,
 OLIVER W H MITCHELL, Chairman
 THOMAS H CUNNINGHAM
 CHARLES H GOODRICH
 WALTER W MOTT
 JOSEPH C O'GORMAN

April 1, 1937

Constitution

Article I

Name and Purposes

The name and title of the Society shall be the Medical Society of the State of New York. The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of New York, to extend medical knowledge and advance medical science; to elevate the standard of medical education, to secure the enactment and enforcement of just medical and public health laws, to promote friendly intercourse among physicians; to safeguard the professional and economic integrity of its members and to establish and maintain them in appropriate and equitable relationship with the public, with government and with all agencies working in the fields of health and welfare, and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State.

Article II

Membership

The membership in this Society shall be divided into three classes (a) Active (b) Retired (c) Honorary

Article III

House of Delegates

There shall be a House of Delegates which shall be the legislative body of the Society and shall be charged with the general management, superintendence, and control of the Society and its affairs and shall have such general powers as may necessarily be incident thereto, except as otherwise specifically provided by the Constitution and By-Laws. It shall pass upon the credentials and qualifications of delegates and shall decide who are entitled to be members of the House of Delegates. It shall have authority and power to suspend or otherwise discipline its own members, District Branches, component County Medical Societies or any member of the Society charged with special duties for and under authority of the State Society. It shall provide for a division of the scientific work of the Society into appropriate sections, for the organization of the District Branches, for rules and regulations for its own govern-

ment and for the administration of the affairs of the Society. When the House of Delegates is not in session, the Council of Trustees shall exercise all the rights and duties of the House of Delegates that are not inconsistent with the Constitution and By-Laws of the Society. (See By-Laws)

Article IV

Council of Trustees

There shall be a Council of Trustees composed of the President, the President-Elect, the immediate Past-President, the Treasurer, and fifteen other members elected by the House of Delegates. The Speaker of the House of Delegates shall sit in the Council of Trustees with voice but without vote.

Article V

Officers

The officers of the Society shall be a President, a President-Elect who shall serve as first Vice-President, a second Vice-President, a Treasurer, an Assistant Treasurer, a Speaker, and a Vice-Speaker of the House of Delegates. They shall take office at the termination of the annual meeting at which they were elected.

Article VI

Board of Censors

There shall be a Board of Censors consisting of the President of the Society and four Presidents of District Branches, as provided in the By-Laws.

Article VII

Meetings

There shall be an annual meeting of the Society and of the House of Delegates to be held at a time and place designated by the House of Delegates.

Article VIII

Funds

Funds shall be raised by an annual per capita assessment on each component County Society at a uniform per capita rate throughout the State. Funds may also be raised in any other manner approved by the House of Delegates or by the Council of Trustees when the said House of Delegates shall not be in session.

The approval of the Council of Trustees shall be necessary for the expenditure of any funds of the Society

Article IX Referendum

At any meeting of the House of Delegates a majority of the members present may order a referendum vote of the Society on any question consistent with the Constitution and By-Laws and in accordance with such regulations respecting the submission of the question as the House of Delegates may prescribe. The members shall vote thereon by mail. The polls shall be closed at the expiration of fifteen days after the mailing of the question, and if the members voting shall comprise a majority of all the active members of the Society, a majority of such vote shall determine the question and be binding on the Society and the House of Delegates. The Council of Trustees may, in a similar manner, order a referendum to the House of Delegates.

Article X District Branches

Sec 1 The membership of the Society shall be divided into eight District Branches, as follows

The First District Branch shall comprise the members of the Medical Societies of the Counties of New York, Bronx, Westchester, Rockland, Dutchess, Putnam, Orange, and Richmond.

The Second District Branch shall comprise the members of the Medical Societies of the Counties of Kings, Queens, Nassau, and Suffolk.

The Third District Branch shall comprise the members of the Medical Societies of the Counties of Albany, Rensselaer, Schoharie, Greene, Columbia, Ulster, and Sullivan.

The Fourth District Branch shall comprise the members of Medical Societies of the Counties of St. Lawrence, Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren, and Washington.

The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Onondaga, Oneida, Herkimer, Oswego, Lewis, Madison, and Jefferson.

The Sixth District Branch shall comprise the members of the Medical Societies of the Counties of Otsego, Delaware, Chenango, Cortland, Tompkins, Schuyler, Chemung, Tioga, and Broome.

The Seventh District Branch shall comprise the members of the Medical Societies of the Counties of Monroe, Wayne, Cayuga, Seneca, Yates, Ontario, Steuben, and Livingston.

The Eighth District Branch shall comprise the members of the Medical Societies of the Counties of Erie, Niagara, Orleans, Genesee, Wyoming, Allegany, Cattaraugus, and Chautauqua.

Sec 2 Each District Branch may adopt a constitution and by-laws for its government and may amend the same, but before becoming effective they shall be approved by the Council of Trustees. They shall be consistent with the Constitution and By-Laws of this Society.

Sec 3 Changes in the number or membership of these District Branches may be made by a two-thirds vote of the House of Delegates at any annual meeting.

Article XI County Societies

The terms County Medical Society or component County Medical Society shall include all County Medical Societies now in affiliation with this Society or which may hereafter be organized and chartered by the House of Delegates. There shall be but one County Medical Society in each County affiliated with this Society. If there should be an insufficient number of physicians in any of the Counties of this State to form themselves into a component County Medical Society, such physicians may become members of the component County Medical Society of an adjoining County when eligible by the Constitution and By-Laws of such County Society.

Article XII Amendments

Amendments to this Constitution, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates. Notice of the proposed amendment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon, it shall be published at least once and at least one month before the annual meeting in the official publication of the Society.

A two-thirds vote of the members of the House of Delegates present and voting shall be necessary for adoption.

Amendments made necessary by law shall be made either by the Council of Trustees or House of Delegates whenever such necessity exists.

By-Laws

Chapter I Membership

Sec 1 The active members shall be all active members in good standing of the component County Medical Societies. A copy of the roster of such members, certified to be correct by the Secretary of such County Society shall be evidence of the right of the members whose names appear therein to membership in this Society. No member who has been dropped from the roll of a component County Society by reason of failure to pay dues shall be accepted by another Society except by regular transfer after reinstatement in the original Society.

Sec. 2 The term "good standing" is hereby defined as (a) A member is in good standing when his dues to his County Society and the assessment of the State Society have been paid when they are due and payable. (b) A member whose dues and assessments are unpaid after May 31 of any current year, is not in good standing. He is in arrears for dues. He has lost his right to malpractice defense by counsel of the Medical Society of the State of New York for any acts upon which suit may be predicated during the period of his arrearage. This last is not recoverable, even when he becomes reinstated. Immediately upon payment of dues during the current year, his right to malpractice defense by counsel of the Medical Society of the State of New York shall be restored from that date. (c) A member whose dues and assessment are unpaid after December 31 of any current year shall automatically be dropped from the rolls of membership of both County and State Societies, without notice to such member by his County Medical Society or the Medical Society of the State of New York, or without further action on the part of either County or State Society, and upon such date, he shall automatically cease to be a member of both County and State Societies.

Sec 3 Any member expelled from his component County Society or suspended from its rights and privileges, shall likewise be expelled or suspended for the same period from this Society. The right of appeal to this Society shall not be impaired, nor shall such appeal prevent the carrying out of the

judgment of the County Society pending such appeal. Members not in good standing or ceasing to be members of their County Societies, shall *ipso facto* have the same status in this Society. Suspension or expulsion shall terminate malpractice defense and automatically cancel the Society's malpractice insurance.

Sec 4 A member of one County Society shall not be permitted to transfer to membership in another County Society until he has established a legal residence in the County to which he desires transfer. The question of legal residence shall be verified by the Board of Censors of the County Medical Society to which the member desires transfer.

Sec. 5 Any member convicted in a court of law of a crime evincing moral turpitude shall thereupon cease to be a member of this Society.

Sec 6 A member in good standing in his component County Medical Society, reaching seventy years of age or if permanently disabled may *ipso facto* have the privilege of applying for retired membership in the State Society. All such applications shall be signed by the President and the Secretary of the County Society of the applicant and then sent to the Secretary of this Society for presentation to the House of Delegates for approval. Active members desiring to become retired members shall apply for such membership to the component County Society in the County of the residence of the applicant. Such applications shall be governed by the Constitution and By-Laws of the Component County Society relative to active membership. Retired members shall not be subject to assessment, but shall be accorded all the rights and privileges of active membership except voting and holding office.

Sec 7 The honorary members of the Society shall be all persons now on the roster as such and in addition such distinguished physicians residing outside of the State of New York as may hereafter be elected. All nominations for honorary membership must be endorsed by three members of the Society and forwarded to the Secretary for presentation to the House of Delegates, which by a two-thirds vote of the House of Delegates present and voting

shall be declared elected honorary members of this Society. Honorary members shall be entitled only to the privilege of attending and addressing the meetings of the Society.

Chapter II

House of Delegates

Sec. 1 The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies, (b) Officers of the Society and other Members of the Council of Trustees, and (c) the President of the District Branches sitting as District Delegates. Past Presidents of the Society shall be life members of the House of Delegates with voice but without vote. Each component County Society shall be entitled to elect as many delegates as there shall be State Assembly Districts in such County at the time of the election, but each component County Medical Society shall be entitled to elect at least one delegate. A component Society representing by its name more than one County shall be entitled to as many delegates as there are Assembly Districts in the Counties named in the title of such Society.

Sec. 2 A delegate to this Society shall not be considered in good standing or entitled to vote in the House of Delegates if the component County Medical Society by which he was elected is in default of the payment of any dues or assessments imposed by the House of Delegates, and said County Society has been duly notified of such default, or if such component County Medical Society shall at the time be under sentence of suspension imposed by the House of Delegates, or if such delegate is not in good standing in this Society, or in the component County Medical Society to which he belongs. The term of a delegate elected by a County Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election.

Sec. 3 The annual meeting of the House of Delegates shall be held on the day before the annual meeting of the Society. The sessions of the House of Delegates may be adjourned from time to time as may be necessary.

Sec. 4 A quorum shall consist of sixty duly elected or constituted members of the House of Delegates.

Sec. 5 The House of Delegates shall hear and finally determine all appeals taken from decisions of the Board of Censors.

Sec. 6 The House of Delegates shall provide for the issue of charters to County Societies in affiliation with this Society.

Sec. 7 The House of Delegates shall have authority to appoint special committees from among members of this Society.

Sec. 8 The following shall be the order of business at the sessions of the House of Delegates:

- 1 Calling the meeting to order
- 2 Report of Reference Committee on Credentials
- 3 Roll call by the Secretary
- 4 Reading the minutes of the previous meeting
- 5 Report of the President
- 6 Address by the President-Elect.
- 7 Report of the Board of Censors
- 8 Report of the Council of Trustees
- 9 Report of the Secretary
- 10 Report of the Treasurer
- 11 Reports of District Branches by District Delegates
- 12 Reports of Special Committees
- 13 Reports of Reference Committee
- 14 Unfinished Business
- 15 New Business
- 16 Adjournment

Chapter III

Election of Officers, Trustees and Delegates

Sec. 1 The Officers and the Trustees of the Society and the Delegates to the American Medical Association shall be elected at the last adjourned session of the annual meeting of the House of Delegates, which adjourned session shall be held at a convenient hour on the first, second, or third day of the annual meeting of the Society. No member of the Society who is in arrears for County dues or State Society per capita assessment shall be eligible for any office or entitled to vote for any officer, trustee or delegate.

Sec. 2 The President, the President-Elect, who shall serve as first Vice-President, the second Vice-President, the Treasurer, the Assistant Treasurer, the Speaker and the Vice-Speaker of the House of Delegates shall be elected for one year or until their successors have been duly chosen.

Three other members of the Council of

Trustees shall be elected annually for a term of five years, except in 1937, when three members shall be elected for five years, three for four years, three for three years, three for two years and three for one year. In the event of a vacancy, a Trustee shall be elected for the unexpired term.

Sec. 3 The first order of business at the last adjourned session of the House of Delegates of each annual meeting shall be the nominations for officers of the Society and other members of the Council of Trustees and delegates to the American Medical Association and the appointment of a sufficient number of tellers by the Speaker. After all nominations shall have been made the Secretary shall cause to be displayed in full sight of the delegates a list of nominees for each office arranged in alphabetical order, and shall also cause to be distributed a sufficient number of blank ballots for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for.

Sec. 4 All elections for such offices and positions shall be by ballot, each member depositing his ballot on roll call individually. In the event of a single nominee only for any office or position, a majority vote without ballot shall elect. In case no nominee for an office receives a majority of votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast when he shall be declared elected.

Sec. 5 The following method shall govern the election of delegates to the American Medical Association. Nominations shall be made for not less than double the full number of delegates to be elected, and the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen, a corresponding number in the next highest order of votes cast shall be declared alternate delegates. When the full number of delegates are not available for attendance at the meeting, the President shall appoint and certify a sufficient number to complete the quota.

Sec. 6 The delegates to the American Medical Association shall be elected in the calendar year preceding the meeting of the House of Delegates of the American Medical Association, to which they are elected and in accordance with the Constitution and By-Laws of that body for a term of two years. Delegates may be elected to other medical societies or similar bodies as the interests of the Society may require, and credentials shall be issued to all delegates, signed by the President and Secretary.

Chapter IV

Council of Trustees

Sec. 1 The Council of Trustees shall be the Executive and Administrative body of the Society while the House of Delegates is not in session and shall control all arrangements for the annual meeting. It shall prepare an annual budget. Its resolutions and actions shall be decisive and final except that all resolutions and actions of the Council of Trustees are subject to review, reconsideration, and action by the House of Delegates. Its actions shall be governed by the Constitution and By-Laws of the Society and the rules and regulations of the House of Delegates. The Council of Trustees shall have power and authority to employ, discharge, arrange duties and fix compensation of and for any employee which it may find necessary for conducting the affairs of the Society.

Sec. 2 The Council of Trustees shall meet at the close of the annual meeting of the House of Delegates. The members of the Council of Trustees shall hold office until their successors are duly elected and qualified.

Sec. 3 It shall meet at regular intervals at times and places that shall be fixed by the Chairman. Any four members of the Council of Trustees may require the Chairman thereof to call a meeting for such time and place as shall be designated by them in writing. Members must receive at least two days notice in letter or telegram from the Society's office.

Sec. 4 A quorum shall consist of eleven members.

Sec. 5 The Council of Trustees shall have charge of all property including trust funds and shall supervise the financial

affairs of the Society and shall invest the surplus from time to time, and all resolutions or recommendations of the House of Delegates pertaining to expenditure of money must be approved by the Council of Trustees before the same shall become effective. The administrative year shall begin July 1 and end June 30 of the following year

Sec. 6 All moneys of the Society received by the Council of Trustees or any member or agent thereof shall be paid to the Treasurer of the Society. The Council of Trustees shall approve the bond of the Treasurer and the Assistant Treasurer as to amount, form and surety, and shall employ a certified public accountant licensed by the State of New York to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its Annual Report to the House of Delegates

Sec 7 The Council of Trustees shall take such action as is necessary to carry out the Constitution and By-Laws and to give full effect to any resolution or vote of the House of Delegates. It shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Constitution and By-Laws

Sec. 8. The Council of Trustees shall have power to fill any vacancy which may occur in any elective office not otherwise provided for, until the next annual meeting of the House of Delegates

Sec. 9 The Council of Trustees shall have responsibility for all publications of the Society and their distribution. Any Special Committee of the Society shall report to the Council of Trustees and shall be subject in all ways to the Council of Trustees unless otherwise instructed by the House of Delegates. The Council of Trustees shall advise the legal counsel in actions brought against members for alleged malpractice. With the aid of legal counsel, it shall examine the Constitution and By-Laws of component County Societies and District Branches and all amendments thereto which may be submitted to the Council of Trustees for approval and shall approve or disapprove of said amendments

Sec 10 No Board, Commission, or Committee shall inaugurate or initiate any policy or commit the Society to any policy unless the same has been expressly approved by the House of Delegates or by the Council of Trustees

Sec 11 The duties of the Council of Trustees shall also include the study and/or supervision of the following activities

- (a) All Scientific Work presented at each annual meeting
- (b) Scientific Exhibits
- (c) Medical Education.
- (d) Journal Management and Publication.
- (e) Medical and related research.
- (f) Arrangements for annual meeting
- (g) Appropriations
- (h) Investments
- (i) Preventive Medicine.
- (j) Public Health
- (k) Legislation
- (l) Economics
- (m) Workmen's Compensation
- (n) Health and Welfare Departments of State.
- (o) Medical Publicity
- (p) Hospitals, Clinics, and Welfare Agencies
- (q) Cooperative Relationships with Federal and State Governments, Foundations and other lay groups
- (r) Malpractice Defense and Insurance.

Sec 12 Committees of the Council of Trustees may include other members of the Society and may be nominated by the President subject to the approval of the Council of Trustees. Each committee shall include at least one member of the Council of Trustees who shall be chairman, except that he need not be chairman for the committee or committees in charge of activities "A", "B" and "F", Chapter IV, Section 11 of the By-Laws. The Membership of committees shall not exceed three including the chairman, except the committee or committees in charge of activities "A", "B" and "F", Chapter IV, Section 11 of the By-Laws

Sec 13 The following shall be the order of business at meetings of the Council of Trustees

- 1 Calling the meeting to order
- 2 Roll Call
- 3 Reading of Minutes
- 4 Communications
- 5 Report of the Secretary
- 6 Report of Treasurer
- 7 Report of Committees
- 8 Unfinished Business
- 9 New Business
- 10 Adjournment

CHAPTER V

Board of Censors

Sec. 1 Members of the Board of Censors shall be nominated each year by the Presi-

dent and approved by the Council of Trustees at its first meeting following the annual meeting of the House of Delegates. They shall hold office for one year, or until their successors are elected. The President of the Society shall sit as the presiding officer of the Board of Censors, but shall vote only in case of a tie. The Secretary shall sit as Secretary of the Board without vote. The Board of Censors shall meet upon the call of the President. It shall report its findings to the House of Delegates.

Three Censors (not including the President) shall constitute a quorum. Each District Branch shall be represented upon the Board of Censors one year in each two years. When an appeal involves a member or members or a County Society or Societies in the jurisdiction of a Censor, such Censor shall be disqualified to act as a member of the Board of Censors and the President shall nominate an alternate for him in the person of another District Branch President who is not regularly serving as Censor.

When an appeal involves a member or members or a County Society or Societies within the District in which the President resides, he shall be disqualified to act as a member of the Board of Censors and the First Vice-President shall serve in his stead.

Sec 2 The Board of Censors shall have jurisdiction to hear and determine all appeals from decisions on discipline of component County Medical Societies or decisions of such Societies which may involve the privileges, rights or standing of members, whether in relation to one another or to County Medical Societies or to this Society. Any member of any component County Medical Society, feeling aggrieved by the decision of such Society may within three months after such decision appeal to the Board of Censors of this Society from the decision of such component County Medical Society by filing a notice of appeal with the Secretary of this Society, and the Secretary of the component County Society.

Sec 3 Any applicant for membership in a component County Medical Society who may have been excluded from membership in such Society, may likewise appeal from the action of said Society excluding him. All decisions shall be subject to appeal to the House of Delegates.

Sec 4 The notice of appeal shall set

forth in writing the name of the appellant, the name of such component County Medical Society and the date and substance of the decision appealed from and shall indicate the ground or grounds upon which such appeal is taken. If the appellant desires to be present in person or by counsel at the hearing of said appeal, the notice of appeal must so state. In that event, the appellant must file with the notice of appeal a bond in the sum of \$500 to cover the costs of said appeal. If the appellant fails to appear in person or by counsel upon the hearing of said appeal, he shall forfeit to the Medical Society of the State of New York such share of said bond as represents necessary expenditures incident to convening the Board of Censors for the hearing of said appeal.

Sec 5 Upon filing a notice of appeal, the appellant and the component County Medical Society shall submit to the Secretary of the Board of Censors all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter. All data so submitted shall be available only to the Censors, and on appeal, to the members of the House of Delegates.

Sec 6 The Board of Censors shall consider the appeal on the data so submitted to it, and may affirm by a majority vote, modify or reverse by a two-thirds vote of the Censors present and voting, the decisions so appealed from. If, in its opinion, the taking of further evidence is advisable, the Board of Censors may summon witnesses and proceed to take such evidence in such manner as it may deem proper and render its decision by a two-thirds vote of those present and voting, which decision shall be binding until reversed or modified by the House of Delegates.

Sec 7 The Board of Censors shall investigate all charges preferred (a) by a member of a component County Society against any component County Medical Society of which he is not a member, and (b) by a component County Medical Society against another such County Society or a member thereof, and the Secretary of the Board of Censors shall submit the report to the House of Delegates for action thereon.

Sec 8 A party desiring to appeal to the House of Delegates from the decision of the Board of Censors shall within three months

after such decision, file with the Secretary of this Society and the Secretary of the component Society a notice of appeal. Such notice of appeal shall set forth in writing the name of the appellant, the name of the component County Society, the date and substance of the decision appealed from and the ground or grounds upon which such appeal is taken. The appellant must also state if he desires to be present in person or by counsel.

Sec. 9 Upon the filing of a notice of appeal the appellant and the Secretary of the Board of Censors shall submit to the House of Delegates the decision and all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter.

Sec. 10 The House of Delegates shall consider and decide the appeal on the data submitted to it, and may affirm, modify or reverse the decision so appealed from. Such decision of the House of Delegates shall be final and binding.

Chapter VI

Duties of Officers

Sec. 1 The President shall preside at all meetings of the Society, the Council of Trustees, and the Censors. He shall be ex-officio member of the Board of Censors and of all committees. He shall appoint all committees not otherwise provided for, subject to the approval of the Council of Trustees. He shall assign the special branches of work for which the members of the Council of Trustees shall be responsible, subject to the approval of the Council of Trustees. He shall also appoint all members of committees of this Council, subject to the approval of the Council of Trustees. The President shall deliver an address at the annual meeting of the Society. He shall perform such other duties as the House of Delegates or the Council of Trustees shall require.

Sec. 2 The President-Elect shall perform the duties of the President in the absence of the President. In the event of the President's death, resignation, removal, incapacity or refusal to act, the President-Elect shall succeed him.

Sec. 3 The immediate past President shall be a member of the Council of Trustees.

Sec. 4 The Speaker shall preside at all meetings of the House of Delegates. He shall appoint all parliamentary committees to serve during the meeting of the House of Delegates at least thirty days in advance of the meeting. All resolutions submitted by County Medical Societies and District Branches to be presented to the House of Delegates should be forwarded to the Speaker at least forty-five days in advance of the annual meeting of the House and referred by him to the appropriate Reference Committee.

Sec. 5 The Vice-Speaker shall perform the duties of the Speaker when requested by the Speaker to do so, or in case of the absence, death, resignation or refusal of the Speaker to act.

Sec. 6 The Secretary shall attend all meetings of the Society, the House of Delegates, the Council of Trustees, and the Board of Censors, and shall keep minutes of their respective proceedings. These minutes shall be copied from a stenographer's notes with such deletion only as will not modify, alter, or becloud the history of the actions of the said bodies. The stenographer's typewritten copy shall be preserved until ordered destroyed by the Council of Trustees.

The Secretary shall be responsible for and have general charge of the Society's offices and the employees therein. He shall be the custodian of the seal of the Society, and of all books of records and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep an account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members at all sessions of the Society. With the aid and cooperation of the Secretaries of the County Societies, he shall keep a proper register of all the registered physicians of the State by counties. He shall aid the officers of the District Branches in the organization and improvement of the County Societies and the extension of the power and influence of the Society. He shall conduct the official correspondence, notifying members of meetings, Officers, Trustees and Board members of their election and committees of their appointment and duties. He shall affix the seal of the Society to all credentials issued to members of the Society elected by the House of Delegates and to such other persons

and documents as may require the same. He shall make an annual report to the House of Delegates. He shall supply each County Society with the necessary blanks for making their annual reports to this Society. Acting in cooperation with the Council of Trustees, he shall prepare and issue all programs. He shall be ex-officio a member of all boards and committees, without vote. He shall record the name and date of admission of each member of the Society.

Sec. 8 The Assistant Secretary shall aid the Secretary in the work of his office and in the absence or disability of the latter, he shall perform the duties of the office until the Secretary resumes the work, or in case of a vacancy until a successor shall be elected.

Sec. 9 The Treasurer shall keep accurate books of accounts of all moneys of the Society which he may receive, and shall disburse the same when duly authorized, but all checks drawn by the Treasurer upon the funds of the Society shall be countersigned by the Secretary of the Society. He shall collect, on or before the first day of June in each year, from the Treasurer of each component County Society the State per capita assessment. He shall at the expense of the Society give a bond for the faithful performance of his duties, which shall be approved by the Council of Trustees as to amount, form, and surety. He shall make an annual report to the House of Delegates and monthly reports to the Council of Trustees. He shall be a member of the Council of Trustees.

Sec. 10 The Assistant Treasurer shall aid the Treasurer in the work of his office, and in the absence or disability of the latter, he shall perform the duties of the office until the Treasurer resumes the work, or in case of a vacancy until a successor shall be elected. He shall, at the expense of the Society, give a bond for the faithful performance of his duties, which shall be approved by the Council of Trustees as to the amount, form, and surety. He shall be entitled to all the rights and privileges of the office while acting as Treasurer.

Sec. 11 Concerning substitutions in office

The Second Vice-President, the Assistant Secretary, the Assistant Treasurer and the Vice-Speaker shall serve as the First Vice-

President, the Secretary, the Treasurer and the Speaker, respectively, whenever these senior officers are incapacitated for service by injury, ill health of themselves or families, imperative professional duties, or by other mandatory absences. This shall be construed so as to include duty at or during meetings of the Council of Trustees, as well as the other official duties designated for the senior officer. The senior officer shall promptly notify the junior officer of his incapacity and request his attention to said duties.

Sec. 12 Each President of a District Branch shall visit the County Societies of his district at least once a year and make a careful inquiry of the condition of the profession in each county in his district and shall report thereon to the House of Delegates.

Chapter VII

Direction of Activities

Sec. 1 (a) An officer to be known as the Director of Activities shall be employed by the Society. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability, and who will give his full time and undivided attention to the affairs of the Society. He shall have been in actual practice for at least ten years or shall have qualifications which in the opinion of the Council of Trustees are equivalent to the same.

(b) The duties of the Director of Activities shall be as follows. He shall have general management of the executive details of the Society's business, subject to the Council of Trustees, he shall be the coordinator of all activities of the Society, he shall act as Secretary of the House of Delegates, of the Council of Trustees, and of the Board of Censors. Upon the signing of his contract with the Society, he shall automatically become the Secretary of the Society and assume all duties designated for the Secretary in Chapter VI, Section 6.

Sec. 2 An officer to be known as the Associate Director shall be employed by the Society. He shall assist the Director of Activities. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability and who will give his full time

and undivided attention to the affairs of the Society, subject to the direction of the Council of Trustees and the Director of Activities. He shall have been in actual practice at least seven years, or shall have qualifications which in the opinion of the Council of Trustees are equivalent to the same. Upon the signing of his contract with the Society he shall automatically become the Assistant Secretary of the Society.

Sec. 3 The terms of service of the Director of Activities and the Associate Director shall correspond with the administrative year of the Society: *i.e.* July 1 of one year to June 30 of the following year.

Chapter VIII

Meetings

Sec. 1 The notices of the annual and special meetings of the Medical Society of the State of New York, and its House of Delegates, and of regular meetings of the Council of Trustees, and the Board of Censors, shall state the date, place and hour and shall be mailed in securely post-paid wrapper to each member of the body holding such meeting at least seven days before said meeting. The affidavit of mailing by the Secretary of the Society to the last recorded address of the member shall be deemed sufficient proof of the service upon each and every member for any and all purposes.

Sec. 2 Each member in attendance at the annual or special meeting of the Society shall enter his name and the name of the component County Medical Society to which he belongs in a register to be kept by the Secretary of the Society for that purpose. No member shall take part in any of the proceedings of such a meeting until he shall have complied therewith.

Sec. 3 All members in good standing so registered may attend and participate in the proceedings and discussions of the general meetings of the Society and of the Sections.

Sec. 4 The following shall be the order of business at all general meetings of the Society

- 3 Reading the minutes of the last meeting
- 4 Miscellaneous business
- 5 President's address
- 6 Special addresses
- 7 Reading and discussion of papers

Sec. 5 Special meetings of the Society shall be called by the President upon the request in writing of two hundred and fifty members from the membership of at least ten component County Societies, and in case of the failure, inability or refusal of the President to act, such meeting may be called by a notice thereof subscribed by two hundred and fifty members.

Sec. 6 Special meetings of the House of Delegates shall be called by the Speaker upon the request in writing of sixty delegates, or at request of the Council of Trustees, and in case of the failure, inability or refusal of the Speaker to act, such meetings may be called by a notice thereof subscribed by sixty delegates.

Chapter IX

Expenses

Sec. 1 Allowances for expenses incurred in the actual performance of official duties by officers, members of the Council of Trustees, Board of Censors, and committees, and delegates to the American Medical Association shall be made in conformity with the following conditions. The President shall be allowed a *per diem* and expenses when engaged upon official business. All other officers shall be allowed travelling expenses when engaged upon official business. Members of the Council of Trustees and of the Board of Censors, shall be allowed travelling expenses. Members of committees of the Council of Trustees, and of all special committees of the society, shall be allowed travelling expenses. There shall be no allowance made for the expenses, travelling or otherwise, for any committee appointed pursuant to Chapter X of these By-Laws. Proper vouchers must be filed with the Secretary and approved by the Council of Trustees before any of above allowances are made. The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of

- 1 Calling the Society to order

- 2 Address of welcome by the Chairman of the Committee on Arrangements

such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. The vouchers of such expense shall be approved by the Council of Trustees before payment. Each District Branch shall be entitled to receive a sum not to exceed \$200.00, exclusive of the work done by the Secretary regarding notices, programs, etc. to defray the expenses of holding the annual meeting of such District Branch, provided a proper statement of such expense shall have been presented to the Secretary and approved by the Council of Trustees. All bills, claims or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Council of Trustees and such extension shall not exceed ninety days.

Chapter X

Reference Committees

Sec 1 At least one month before the meeting of the House of Delegates the Speaker shall appoint and publish in the Journal such Reference Committees as he shall deem expedient for the purposes of the meeting. Immediately after the organization of the House of Delegates he shall formally announce the appointments of the Committees. Only members of the House of Delegates are eligible for appointment on the Reference Committees. Such Committees shall consist of five members, three members constituting a quorum, and shall serve during the meeting for which they are appointed.

Sec 2 Reports of Officers, Council of Trustees, and Committees shall be printed at least one month before the meeting of the House of Delegates and sent to the members of the Reference Committee appointed according to Section 1, for their preliminary consideration. All recommendations, resolutions, measures, and propositions presented to the House of Delegates and which have been duly seconded shall be referred by the Speaker to the appropriate Reference Committees.

Sec 3 Each Reference Committee shall immediately consider such business as may have been referred to it and shall report promptly to the House.

Chapter XI

Special Committees

Sec 1 Special Committees may be created by the House of Delegates to perform the special functions for which they are created. They shall be appointed by the officer presiding over the meeting at which the committee is authorized, if such committee is to conclude its work during said meeting of the House of Delegates. The President shall appoint all other committees subject to the approval of the Council of Trustees unless otherwise ordered by the House of Delegates.

Sec 2 A Special Committee on Prize Essays consisting of three members, including the Chairman, shall be appointed by the President with the approval of the Council of Trustees. Its duty shall be to receive all essays offered in competition for prizes which may be offered by this Society. The Committee shall make all necessary rules and regulations for the award of prizes subject to the terms of the deeds of gift, and shall report the result at the next annual meeting of the House of Delegates. It shall give notice through the Society's publication or by other methods within thirty days after appointment, of the amount of the prize and when the essays shall be submitted to the Committee.

Sec. 3 Any member of the Society shall be eligible to serve on Special Committees. All members of such committees, who are not members of the House of Delegates, shall have the right to present their reports in person to the House of Delegates and to participate in the debate thereon, but shall not have the right to vote.

Chapter XII

Sections

Sec 1 The Scientific Sections designated by the House of Delegates shall each organize by the election of a Chairman and Secretary. The Chairman shall be elected annually, the Secretary for such term as the Section may deem fit.

Sec 2 The officers of the various Sections shall prepare programs for their Sections under the direction and subject to the approval of the Council of Trustees.

Sec. 3 The election of officers of Sections

shall be the first order of business of the first session of the second day of each annual meeting To participate in the election of any Section, a member must be registered with such Section and must have recorded his name and address in the Section registry

Sec. 4 Each Section shall hold its meetings at such times as designated by the Council of Trustees

Chapter XIII

District Branches

Sec. 1 Each District Branch shall elect a President for two years, who shall be a District Delegate of the House of Delegates during his term in said office.

Sec. 2 Each District Branch shall elect such officers as are provided for in its By-Laws, who shall attend the business meetings of the Branch

Chapter XIV

Component County Medical Societies

Sec 1 (a) Eligibility for membership in County Medical Societies shall be determined by the Boards of Censors or Comitia Minora of the County Medical Societies Except by approval of the Council of Trustees of the Medical Society of the State of New York, no physician shall be an active member in a County Medical Society other than that of the county in which he maintains legal residence, or has his principal office

(b) In order that a member desiring to correct his membership pursuant to the terms of this section shall have an opportunity to do so without impairing his status as an active member, a period of six months from the date of the adoption of this section must elapse before the Board of Censors or the Comitia Minora of any County Medical Society shall have the right to declare a member ineligible by reason of the fact that he neither maintains a legal residence or has his principal office in the jurisdiction of the County Medical Society of which he is then a member

Sec 2 Whenever an active member in good standing in any component County Medical Society removes to another County in this State, his name, upon his request,

shall be transferred to the roster of the component County Medical Society of the County to which he removes, without cost to him, provided that he files a certificate with the Secretary signed by the President and Secretary of the component Society from which he removes as to his good standing in such Society No member, however, shall be an active member of more than one component County Society, nor shall any component County Society accept a physician residing in another County in any other way than in accordance with the law governing transfers

When a member in good standing ceases to reside and practice in the State of New York he shall *ipso facto* cease to be a member of the Society and of his component County Medical Society His status shall be deemed that of a resigned member and all rights and title to any share in the privileges and property of the Society, the District Branch, or County Society, shall be deemed to have been forfeited by such action

The dues of any member of the Medical Society of the State of New York may be remitted for the current year on account of illness when the request is made by the member's component County Medical Society

Sec. 3 At its annual meeting each component County Medical Society shall elect a delegate or delegates to represent it in the House of Delegates of this Society in accordance with the Constitution and By-Laws of this Society

Sec 4 The Secretary of each component County Medical Society shall keep a roster of its members in which shall appear the full name of each of said physicians, the date of his admission to such society, his residence, and the date when his license to practice medicine in this State was granted He shall note any changes in said roster by reason of removal, death or change of name, revocation of license or other disqualification

He shall forward said roster and information, together with the names and places of residence of each of the officers of said society and the names and residence of each delegate of the House of Delegates of said society to the Secretary of this Society sixty days before the date of its annual meeting

Sec. 5 The Treasurer of each component County Medical Society shall forward to the Treasurer of this Society the amount of the State per capita assessment on or before the first day of June of each year

Sec. 6 Each component County Medical Society shall adopt a Constitution and By-Laws for the regulation of its affairs and may amend the same provided they shall be first approved by the Council of Trustees before becoming effective. The Constitution and By-Laws of component County Societies must not be in conflict with the Constitution and By-Laws of this Society

Chapter XV

Miscellaneous

Sec. 1 No address or paper before the Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak upon any question before the House of Delegates for longer than five minutes nor more than once on any subject, except by the consent of a majority vote

Sec. 2 All papers read before the Society by its members shall become the property of the Society. Permission may be given, however, by the Council of Trustees or House of Delegates to publish such paper in advance of its appearance in the *NEW YORK STATE JOURNAL OF MEDICINE*

Sec. 3 Any distinguished physician of a foreign country or a physician not a resident of this State, who is a member of his own State Association, may become a guest during any annual session upon the invitation of the President or officers of the Society, and may be accorded the privilege of participating in all the scientific work of the session

Sec. 4 The rules contained in Robert's Rules of Order shall govern the Society and the House of Delegates in all cases in which they are not inconsistent or in conflict with the Constitution and By-Laws of the Society or the standing or special rules of the House of Delegates

Sec. 5 Written charges may be preferred against any officers, Trustees, and members of Boards and Special Committees of the Society, for malfeasance or nonfeasance in office, by any member and transmitted to the

President. The President shall order a trial upon said charges by the Council of Trustees, or a Committee thereof, and in the event of such trial the accused shall be given at least ten days' notice of such charges and have full opportunity to defend the same, but no such officer or member of the committee shall be removed or otherwise disciplined except by a two-thirds vote of the Council of Trustees. In case any such officer, or trustee, or member of a board or committee shall be removed, he may appeal from the decision of the said Council of Trustees to the House of Delegates, but pending the determination of such appeal, he shall not exercise the functions of his office.

Sec. 6 Sections of the By-Laws which refer to the order of business and to reference committees may be suspended by a two-thirds vote of the House of Delegates

Chapter XVI

Sec. 1 The seal of the Society shall be as follows

Chapter XVII

Amendments

Sec. 1 Amendments to these By-Laws, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates

Sec. 2 Notice of the proposed amendment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon it shall be published once before the annual meeting in the official bulletin or journal of the Society

Sec. 3 The affirmative vote of two-thirds of the House of Delegates present and voting shall be necessary for adoption.

Sec. 4 Amendments made necessary by law shall be made either by the Council of Trustees or House of Delegates whenever such necessity exists

O. W. H. MITCHELL, *Chairman, Syracuse*
WALTER W. MOTT, *White Plains*
CHARLES H. GOODRICH, *Brooklyn*
THOMAS H. CUNNINGHAM, *Glens Falls*
JOSEPH C. O'GORMAN, *Buffalo*

REPORT OF BOARD OF CENSORS

To the House of Delegates, Gentlemen

There has been held during the year one session of the Board of Censors of the Medical Society of the State of New York

The Board convened in the offices of the State Society, New York City, on December 10, 1936, to hear the Appeal of Drs Thomas F Draper and F Raymond Surber against the action of the Medical Society of the County of Queens suspending them from the rights and privileges of membership for a period of six months from October 27, 1936

The following Censors were present Terry M Townsend, Bertran W Gifford, John P J Cummins, Leo P Larkin, and Thomas W Maloney, Floyd S Winslow, presiding, Peter Irving, Secretary

The appellants appeared in person without counsel, the respondent was represented

by James M Dobbins, President, and Herbert L Langer, Chairman of the Board of Censors of the Medical Society of the County of Queens Mr Thomas H Clearwater acted as Legal Advisor for the Board of Censors

All evidence presented was carefully considered and in particular, additional evidence in the form of three letters which had been received by the appellants subsequent to the action of the County Society imposing suspension

The Board of Censors unanimously resolved

That this matter be referred back to the Board of Censors of the Medical Society of the County of Queens for reconsideration with the additional evidence that has been submitted to this Board

Respectfully submitted,

PETER IRVING, M D, *Secretary*

April 1, 1937

REPORT OF COMMITTEE ON MEDICAL TRENDS

To the House of Delegates, Gentlemen

The work of the Committee on Medical Trends during the last year has been confined to the supervision of the activities of the Public Relations Bureau, which was instituted January 15, 1935. At the close of a year spent in presiding over the destinies of a pioneer effort in the interpretation of the medical profession to the public, the committee wishes to express its deep obligation to Dr James F Rooney, who inspired the installation of the Public Relations Bureau and who, as the first chairman of the committee, guided it through the dangerous shoals of its first year of activity

As constituted at present the committee comprises the chairmen of each of the standing committees of the society, plus three additional members chosen for their special ability to be of help in this type of work. The committee comprises Drs Terry M Townsend as Chairman, Augustus J Hambrook, Frederic E Elliott, Homer L Nelms, William A Groat, Thomas P Farmer, Leo F Simpson, Samuel J Kopetzky, David B Jewett, and George W Kosmak.

The committee held four meetings during the year. A sub-committee consisting of the members residing in New York and Brooklyn met once. At several meetings we have had the advantage of the presence and assistance of Dr Floyd S Winslow, president of the society, Dr Charles H Goodrich, president-elect, and Dr Peter Irving, secretary. Dr Charles Gordon Heyd and Dr Nathan B Van Etten were called upon to advise us from time to time.

Summarizing the work of the bureau in terms of pieces of mail matter sent out during the year, we beg to report a total of 2,630 personal letters dictated and mailed, 8,500 mimeographed news releases, 21,968 mimeographed copies of installments of the "Do You Know?" column for weekly newspapers in New York State, reprints of articles, news items, editorials, numbering 122,260.

The news releases have had for their subject matter pneumonia control, district branch meetings, postgraduate courses under the auspices of the Committee on Public Health and Medical Education, and compulsory health insurance.

Editorials appearing in the New

YORK STATE JOURNAL OF MEDICINE were sent specially to editors of important journals in several instances "The Lull Before the Storm" and "Anent the Quality of Medical Care" went to daily newspaper editors, medical journal editors, and to a selected list of nationally important physicians, receiving much favorable comment "Labor and Social Security" was sent to editors of labor and insurance journals, "Cooperation from Understanding" to editors of legal journals A surprising amount of comment was elicited The paper entitled "The Stutter-Type Personality and Stuttering" by Dr James Sonnett Greene, appearing in the JOURNAL of May 15, 1936 was sent to the editors of daily newspapers

In explanation of adding journals as well as individuals outside the state of New York to our list it should be said that the committee has found that in rapidly changing times the propagation of the ideas of organized medicine transcends state lines, persons in New York may read insurance journals published in Philadelphia, the physician in New York who desires information, is not fully informed unless the physician in St Louis whom he may encounter at the next medical meeting is informed, too For this reason, certain releases of high importance are sent to journals of national circulation published outside the state of New York, and also for this reason, the committee has authorized adding to our mailing list leaders of medical thought throughout the country to the number of approximately 500 The type of material sent this list is exemplified by the mailing to them of the leading article in the Herald-Tribune on the Social Security Board's project for health insurance and Dr Winslow's reply the following day, published in the same paper

Through the courtesy of Mr Gardiner of the NEW YORK STATE JOURNAL OF MEDICINE, copies of the medical directory were made available to the editors of all daily and weekly newspapers in the state A letter was sent them explaining how this volume could be made useful

Four mimeographed bulletins were issued during the year with the following titles "Political Activity," "Is The Public To Be Trusted?" "Handwriting

on the Wall," and "Propaganda as a Social Force" These bulletins were issued for the information of the medical profession on subjects connected with their relations with the public They went to a selected list of physicians within and without the state The total number of bulletins distributed was 2,400

The committee employed Mr J Weston Walch of Portland, Maine, to prepare a manuscript entitled "On The Witness Stand—The Evidence Against Compulsory Health Insurance" A total of 90,000 copies were printed in October 1936, of which 3,000 were used in promotion and educational work, 15,000 were mailed to the members of the state medical society, and the balance were sold to organizations and societies throughout the country in small and large quantities, from coast to coast The supply was exhausted in March 1937, and 30,000 additional copies were ordered, 10,000 of which were sold before publication A fair profit was made on these sales above the cost of production which operated to reduce the expense entailed in the copies used for free distribution to editors and publicists in New York State, and to our own members

The committee also employed Dr Frederick L Hoffman, statistician, of Philadelphia to prepare four articles making a comparison of vital statistics in the United States with those of foreign countries where compulsory health insurance is in operation The articles were published in *The Weekly Underwriter* of New York City, issued in pamphlet form in March 1937, by the bureau, and offered on sale throughout the country in quantities The edition of this pamphlet was 20,000 Before publication 750 of these were sold outside of New York State

As distinguished from material which is sent out for publication the Public Relations Bureau mails certain material directly to important persons within the state of New York Among documents so mailed have been Dr Winslow's article in the *Survey*, "Partners in Public Health" and his addresses reprinted from *Vital Speeches of the Day*, "We Do Not Want Security" and "Why Do We Have Medical Ethics?" as well as a reprint of his article in the NEW YORK STATE JOURNAL

OF MEDICINE, "Why Am I A Doctor?" Two of his contributions to local Rochester newspapers, "The Doctor and The Public" and "My Idea of The Best Doctor" were mailed to this list "Whither Medicine?" by Dr Terry M Townsend and "The Doctor of Tomorrow" by Dwight Anderson were similarly distributed

Occasional reprints from the NEW YORK STATE JOURNAL OF MEDICINE are from time to time distributed to publications and persons likely to be interested specially in the subject matter "The Medical Witness" by Hon Meier Steinbrink was thus sent out, as were "Clinical Aspects of Pneumococcus Pneumonia," and "Reduction of Mortality from Pneumococcus Pneumonia" by Dr Peter Irving, published in *Preventive Medicine*

Many journals have reprinted speeches of Dr Winslow and Dr Townsend in full, or quoted from them. References have been freely made to other releases from the bureau. These publications and comments on them, as well as newspaper clippings showing the use of our releases to the press, are kept in scrapbooks at the office of the Public Relations Bureau and form a chronological detailed record of the activities of the bureau

In addition to the use of our material in the daily and weekly press of the state, editorial comments have appeared in the following journals

Journal of the American Medical Association
West Virginia State Medical Journal
Southern Medicine and Surgery
Journal of the Tennessee State Medical Association
Neighborhood Health (Dept of Health publication)
Illinois Medical Journal
Clinical Medicine and Surgery
Digest (Syroense General Hospital publication)
New York Medical Week
New England Journal of Medicine
Tulane Academy of Medicine Bulletin
Journal of the Indiana Medical Association
Bulletin of the Chicago Dental Society
Ohio State Medical Journal
American Journal of Public Health
Rhode Island Medical Journal
Delaware State Medical Journal
Bulletin of the Medical Society of the County of Monroe
Medical Economics

Vertical File Service
Broome County Bulletin
Pennsylvania Medical Journal
Minnesota State Journal of Medicine
Florida State Board of Health Bulletin
Suffolk County Medical Society Bulletin
Journal of the Medical Society of Alabama
Westchester Medical Bulletin
Supplement to the British Medical Journal
Bulletin of Bergen County Medical Society
Canadian Doctor
Chicago Medical Society Bulletin
Pittsburgh Medical Bulletin
Journal of the Medical Society of New Jersey
California and Western Medicine
The Labor Union
Cincinnati Academy of Medicine Bulletin
Modern Medicine
The Survey
Medical Pocket Quarterly

Many requests have come from physicians throughout the country to be placed on our mailing list and a number of letters have been received commenting favorably on the type of service rendered by the bureau

Several invitations to speak before county medical societies concerning the work of the committee have been accepted. The chairman, together with the director of the Public Relations Bureau, spoke at a meeting of the Bronx County society, October 21, 1936, and the Tompkins County society at Ithaca, November 19, 1936. They also went to Chicago, September 24, 1936, at the request of the trustees of the American Medical Association

Mr Dwight Anderson, director of the bureau, spoke to a group of students at New York University on the subject of sickness insurance, November 24, 1936, and addressed the annual meeting of the Monroe County society, December 15, 1936, on the subject "The Doctor of Tomorrow." Mr Anderson accompanied a group to Chicago, November 16, 17 and 19 as an unofficial observer at a meeting of state secretaries and editors of medical journals

Since the last report, Mr Anderson has attended the A M A meeting at Kansas City, and has also made necessary trips to Saratoga Springs, Philadelphia, Albany, Buffalo, Rochester, and Ithaca. He has attended a number of meetings, luncheons, and conferences of lay persons, as well as most of the regular meetings of the standing committees of the society

The bureau arranged for a meeting to hear Dr. Kingsley Roberts speak on the cooperative movement, and arranged for the attendance of representative physicians at a special committee meeting of the Association of the Bar.

Requests have come from neighboring state and county medical societies for explanation of the work the committee is doing and for help in establishing similar public relations bureaus. Your chairman, as well as the director of the bureau, has offered what assistance was possible in response to these requests and in every instance the physicians making such applications have been placed on the mailing list to receive our material.

Since the last report to the House of Delegates, 15,632 names have been added to our stencil list, making a total of 22,882 stencils. By an ingenious system of keying, we are able to operate our addressing machinery, mailing certain pieces of mail matter only to groups most interested. The list now comprises two types of names, those to receive releases or other material to be republished by the recipient, and individuals who are sent printed matter for their own reading. To summarize briefly headings under which these names are grouped: Editors and chief editorial writers of daily newspapers, principal department editors, newspaper syndicates, weekly newspapers, special lists to receive material on socialized medicine, pneumonia, and bulletins, county and state society presidents and secretaries, council and section officers, AMA delegates and trustees, medical journals, health columns, agricultural, collegiate, fraternal, industrial, labor, foreign language publications, general publications, health department, religious and welfare, miscellaneous publications, picture services, house organs, hospitals and nurses publications, chamber of commerce, dental, philanthropic and humanitarian, insurance and educational publications, health commissioners, N. Y. State legislators, Workmen's Compensation Board, N. Y. County Lawyers Association and Bar Association, Rotary and Lions Clubs, chambers of commerce, YMCA and social workers, associations and societies, tuberculosis associations and tuberculosis society publications, libraries, dentists,

teachers, delegates to the state society, orthodontists, key persons sent in by the county societies, key lay persons named by delegates, preachers and influential churchmen, labor union leaders, farmers.

Our mechanical equipment consists of these stencils, an addressing machine, stencil cutter, mimeograph machine and folding machine, all operated electrically, and an envelope sealer and stamping machine operated by hand.

Conferences and interviews have been had from time to time with editors and writers. Part of the function of the Public Relations Bureau is to stimulate ideas to bear fruit elsewhere. These activities are of such a character that the results usually appear quite dissociated from any reference to the bureau. The members of the committee, and especially the chairman, are in close touch with the activities in this respect which are conducted by the director, and without going into details in this report it is their belief that this part of the work is well conducted and productive of results. One such item may be mentioned in passing. The bureau supplied information for an editorial in the March 1937, issue of "The Nation's Business" and for a complete article to appear in the May number entitled "Uncle Sam, M. D."

As this report is written the Public Relations Bureau is about to inaugurate a "Speaker's Service." This service will supply ideas for stated talks before meetings and will also study and present from time to time suggestions for assisting the doctor in influencing those whom he meets at club, church, or in his usual casual day by day contacts. It is one of the doctor's obligations to society to make his views known on matters of a quasi-medical nature which come to the public's attention and involve their health. Heretofore the doctor has failed to be as vocal as he might become, without loss of dignity or prestige. He has had neither the time to develop the faculty nor the technic to use it. The speaker's service will not undertake to bring speakers and audiences together. This is a task which must be done locally with reference to conditions with which a centralized bureau could not be conversant.

The committee recommends to the

House of Delegates that it pass a resolution calling upon each county medical society to appoint a special committee of not more than three members to co-operate locally with the Committee on Medical Trends of the society in the furtherance of the speaker's service project

The Committee on Medical Trends, from the response which it has received from its efforts so far, feels confident that health insurance can never be foisted upon the American people if every man and woman in the country knows the facts. With the machinery which has been perfected by the Public Relations Bureau an adequate presentation can be made in New York State so that no in-

telligent person will have failed to have an opportunity to be informed. The work which is in progress in this state, by the very fact that we are known to be adequately prepared to meet such issues, may have an important bearing on the promotion of inimical proposals both in their state and national aspects.

It is felt that we are approaching the time when the physician will in fact exert in his community the influence which is already his, but which has remained an inert force through lack of coordinated planning to make it kinetic.

Respectfully submitted,

TERRY M TOWNSEND, *Chairman*

April 1, 1937

REPORT OF COMMITTEE ON MEDICAL RESEARCH

To the House of Delegates, Gentlemen

In behalf of your Committee on Medical Research, I have the honor to present the following report

Mr Doyle again presented his annual antivivisection bill, Assembly Int #1285. There was no new feature in this bill. It was designed to prevent experimentation on the living dog. The bill was referred to the Public Health Committee.

Many of the members of this Committee have been contacted previously on bills of this nature. They recognize that the present state laws covering experimentation on animals are carefully drawn up so that adequate safeguards are provided for this work. Animals must be treated with as much care and considera-

tion as humans under the terms of our present laws. Animal experimentation must be continued if medicine is to make new discoveries. The interests of the public health would be endangered by restrictions placed on animal experimentation.

Up to the present time no action has been taken on the Doyle bill. It does not seem likely that the bill will receive favorable consideration.

Your chairman wishes to thank the members of the Committee on Medical Research for their cooperation in carrying out the annual program.

Respectfully submitted,

JOHN J MORTON, *Chairman*

April 1, 1937

REPORT OF THE COUNSEL

To the House of Delegates, Gentlemen

Your counsel herewith submits his Report of activities of the Legal Department of the Medical Society of the State of New York for the period from February 1, 1936 to and including January 31, 1937.

This has been an exceedingly busy year both in court and in consultation. The appended figures while they give some indications of the amount of work done do not adequately portray the details of the work that has been accomplished,

nor do they give any adequate picture of the responsibility assumed by our Department. A report must necessarily state only conclusions.

At the outset of this report your Counsel wishes to record his appreciation for the assistance and cooperation furnished him by your officers and committeemen. The problems confronting organized medicine today are many, varied, and complex. The solution of these problems involves an immense amount of work and your officers and committeemen are to be

congratulated on their industry and loyalty on behalf of the membership of your Society

In making his report your Counsel adheres to the convenient category employed in previous years whereby his activities have been divided into three main divisions (a) The actual handling of malpractice actions before courts and juries and in the Appellate tribunals, (b) counsel work with officers, committees, and individual members of the Society, and (c) legislative advice and activities

Litigation

In his report last year your Counsel said "It is pertinent at this point to make mention of the fact that careless, hasty, and unjustified criticism by one physician concerning the work of another often leads to the commencement of a malpractice action. Your Counsel believes that such unjustified criticism is not often deliberately made but frequently the effect on the patient is precisely the same as if the criticism were motivated by malice"

We feel that this admonition will bear repeating. It is difficult enough to contend with the forces outside our organization without adding the element of disunion from within.

So far as the hazard of a malpractice action to the practicing physician in this State is concerned, little need be said. It is ever present and we wish to repeat and emphasize the fact that the physician's rights so far as the facts of the case are concerned rest entirely in the hands of a lay jury. Bias, prejudice or passion have no proper place in the jury box. This is true in theory, but in practice, unfortunately, the very opposite is often true as anyone familiar with the courts can testify.

The realization of this situation led your representatives many years ago to organize the present group plan. The justification for this plan as well as its successful operation are matters of record. It affords to your membership an opportunity to insure themselves in adequate amounts, thus eliminating the financial hazard of a malpractice action.

For many years in these reports we have had occasion to make mention of

the splendid work in the field of litigation of your Counsel's associate, Mr. William F. Martin. It is with pleasure that we do so again in this report. Mr. Martin is a man of splendid character and one whose abilities as an advocate have won for him expressions of approval from judges, lawyers, and doctors throughout the State.

Your Counsel also wishes to note the splendid work done by his associate, Mr. Thomas H. Clearwater, the Attorney for the Society. Through the years Mr. Clearwater has been in close contact with your officers and committeemen and with many individual members of your Society. Your Counsel wishes to record with appreciation Mr. Clearwater's excellent work in connection with the many problems that are before us for consideration and solution.

Your Counsel feels that he should not leave this subject without mention of the splendid spirit of industry, loyalty, and devotion manifested by your Counsel's entire staff, both legal and clerical.

With this preliminary statement we note that there were commenced in the present *twelve-month* reporting period 184 actions as against 185 actions reported during the previous reporting period which covered a period of *eleven months*. It thus appears that in the past *twelve months* one less case was commenced than in the previous *eleven-month* period. This is an encouraging sign. These figures do not, of course, include a number of claims outstanding in which suit may ultimately be brought. Throughout the year your Counsel has been in conference and consultation with many claimants and their attorneys and frequently we have successfully demonstrated to them that in fact and in law no valid claim exists.

The Table of Comparisons appended hereto shows that we disposed of in *twelve months* 251 cases as against 208 cases disposed of during the previous *eleven month* reporting period. Of the 251 cases disposed of during the reporting period, forty-seven cases were settled and 199 actions have been successfully terminated in favor of the physician, either by judgment rendered in his favor or by discontinuance or abatement. In five cases judgments were rendered in favor of the plaintiff.

Of the cases in the Appellate Courts we were successful in three and unsuccessful in one

We note from Table I that there were pending as of January 31, 1937, 535 cases as against 602 cases pending January 31, 1936

At this point it is pertinent to say that litigation and insurance protection are inextricably interwoven. From our experience we can assert without hesitation that no physician can practice his profession in this State with peace of mind unless he has taken the precaution to insure himself in adequate limits against the ever present possibility of legal action being taken against him

The State Society has an Insurance Committee which works in cooperation with your Counsel and with your authorized insurance representative, Harry F. Wanvig, and this Committee considers

and passes on, in the first instance, all problems that may arise in the operation of your group plan

Table II gives a comparison of the number of members insured in 1934, 1935, 1936, and 1937 and the number of members in the County Societies and the percentage of insured members in the County Societies and in the entire State Society

Counsel Work

During the period of this report your Counsel prepared for the Society's JOURNAL articles in the nature of editorial comment. These articles have included the following:

Malpractice—Treatment of Fractured Hip

Malpractice—Action barred by Release
Healer found Guilty of Illegal practice of Medicine

TABLE I
COMPARISON OF THE NUMBER OF SUITS INSTITUTED AND DISPOSED OF IN 1935-1936 AND 1936-1937

	Instituted		Disposed of	
	1935-1936 (11 months)	1936-1937 (12 months)	1935-1936 (11 months)	1936-1937 (12 months)
1 Fractures, etc.	14	13	21	25
2 Obstetrics, etc.	16	17	23	37
3 Amputations	3	4	2	4
4 Burns, x-rays, etc.	17	31	26	35
5 Operations, Abdominal, eye, tonsil, ear, etc.	59	52	56	59
6 Needles breaking	3	3	1	3
7 Infections	20	12	21	15
8 Eye infections	2	4	5	2
9 Diagnosis	18	18	18	17
10 Lunacy commitments	3	4	3	3
11 Unclassified—medical	30	26	32	51
Totals	185	184	208	251
<i>Further Comparisons</i>				
Actions for death	26	22	25	24
Infants actions	17	16	20	23
Totals	43	38	45	47
<i>How Disposed of</i>				
Settled			37	47
Judgment for defendant, dismissed, discontinued or abated			166	199
Judgment for plaintiff			5	5
Totals			208	251
<i>Further Comparisons</i>				
Appeals				
Judgments for defendant			4	3
Judgments for plaintiff			1	1
Pending on January 31, 1936	602			
Pending on January 31, 1937	535			

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Plaintiff's Burden of Proof
 Practice of Medicine by a Corporation
 Malpractice—Ether burn of Eye
 Physician and Patient—Physician's action for Compensation
 Physician and Patient—The Value of Professional Services
 Practice of Medicine without License
 Physicians and Surgeons—An interesting Fracture Case
 Malpractice—Death of Alcoholic under Anesthesia
 Discipline of Advertising Physician
 A Very Unusual Surgical case
 Malpractice—Plaintiff's failure to Prove Negligence
 Physicians and Surgeons—Liability for negligence of another Physician
 Insurance—Overdose of Drug as Accidental cause of Death
 Physicians—Compensation—Requirement of License
 Evidence—Demonstration by Medical Witness
 Limitation of Actions against a Physician
 Physician and Patient—Fee of Consultant
 Malpractice—Liability of Eye Specialist
 Privileged Communications—Dentists

Your Counsel has also digested and there have been published in the STATE JOURNAL case reports upon malpractice actions which it has been felt were of special interest to the members of the profession. The case reports which were published during the previous year are as follows

Removal of Superfluous Hair
 Complaint concerning Prescription for Dermatitis
 Claimed Negligence upon Death of Fetus
 Accidental Burn during Diathermy Treatment
 Treatment of Lymphosarcoma
 Plastic Operation upon Nose
 Claimed infection following Diphtheria Injection
 Redness following Diathermy Treatment
 Death following Cesarean Operation
 Needle Breaking Case
 Death from Gangrene following Infection of Toe
 Treatment of Phagedenic Ulcer
 Claim of Negligence in administering Injections
 Amputation of Leg
 Death following Herniotomy
 Claimed Improper Examination
 Treatment of Pruritus Ani
 Treatment of Infected Index Finger
 Alleged Improper Physical Examination

Fecal Concretion confused with Rubber Tube
 Treatment of infected Thigh
 Accident during Application of Acid
 Death following Removal of Stone from Ureter
 Mass on Tongue
 Treatment of Neuritis
 Alleged Illegal Commitment
 Extraction of Teeth
 Broken Needle in Leg

It is pleasing for your Counsel to learn from the members of your Society throughout the State that they enjoy reading these reports and articles and that they find them to be interesting and instructive

In addition to his other duties your Counsel receives frequent requests for opinions, orally and in writing, on various topics. Some of the matters upon which advice has been given (in writing) are the following

1 Inquiry from a doctor as to the advisability of and legality of a list of delinquent debtors to be compiled by the various members of a County Medical Society

2 Inquiry as to whether a physician can discharge himself from responsibility for making further calls upon a patient who has refused to pay the physician's charges to date

3 Inquiry as to the following matters concerning the administration of anesthesia in hospitals

(a) Liability arising from an anesthesia accident when a nurse anesthetist administers the anesthesia when there is no doctor as director and instructor in anesthesia.

(b) Liability arising from an anesthesia accident where a nurse anesthetist administers the anesthesia where a doctor is designated as director and instructor in anesthesia but at the time of the accident is not present

(c) Liability arising from an anesthesia accident where a nurse anesthetist administers an anesthesia in the presence of a doctor appointed as director and instructor in anesthesia

4 Inquiry on behalf of the physicians on the staff of a not-for-profit hospital in the attempt to obtain a solution to the following problem. A Municipal appropriation of a substantial sum of money was made to compensate the physicians at the hospital for the care of the public poor. The City Treasurer claimed he could not pay individual physician's bills from the fund and the physicians sought an appropriate legal method of disbursing the money set aside from the purpose of compensating physicians which would not involve having the hospital act as paymaster

TABLE II

COMPARISON OF THE NUMBER OF MEMBERS INSURED IN 1934, 1935, 1936 AND 1937 AND THE NUMBERS IN THE COUNTY SOCIETIES AND THE PERCENTAGE OF INSURED MEMBERS *

	1934			1935			1936			1937		
	A	B	C	A	B	C	A	B	C	A	B	C
Albany	254	146	57	265	164	62	274	179	65	276	155	56
Allegany	33	14	42	34	16	47	35	16	46	34	12	32
Bronx	1,013	513	51	1,022	472	46	1,061	505	48	1,151	478	42
Broome	145	88	61	159	92	58	169	92	54	183	98	54
Cattaraugus	45	31	69	51	31	61	60	33	55	58	30	52
Cayuga	64	35	55	58	39	67	60	45	75	61	43	70
Chautauqua	89	54	51	88	54	61	90	55	61	94	56	60
Chemung	69	49	71	69	46	67	73	48	66	79	48	61
Chenango	33	22	67	33	20	61	35	21	60	32	17	53
Clinton	29	16	55	27	15	56	27	17	63	29	19	66
Columbia	36	21	58	39	21	54	39	19	49	38	9	24
Cortland	24	16	67	27	17	63	29	20	69	32	14	44
Delaware	28	14	50	26	14	54	28	13	46	31	14	45
Dutchess-Putnam	151	77	51	155	85	55	174	85	49			
Dutchess										162	24	15
Erne	798	440	55	750	440	59	801	450	56	840	309	37
Essex	20	15	75	21	15	71	23	14	61	29	13	45
Franklin	51	18	35	51	19	37	52	25	48	52	25	48
Fulton	38	25	68	41	27	66	45	27	60	49	27	55
Genesee	28	15	54	27	15	56	28	13	46	29	14	48
Greene	23	14	61	23	16	70	25	19	76	31	21	68
Herkimer	44	34	77	44	32	73	48	34	71	46	29	63
Jefferson	87	46	53	87	46	53	82	48	59	88	47	53
Kings	2,241	1,175	52	2,221	1,173	53	2,319	1,223	53	2,452	1,142	47
Lewis	19	10	53	18	11	61	18	12	67	16	9	56
Livingston	31	21	70	35	21	60	44	22	50	45	15	33
Madison	30	14	47	31	19	61	35	19	57	39	20	51
Monroe	453	292	64	448	289	64	453	293	65	471	255	54
Montgomery	52	18	35	52	19	37	52	18	35	52	11	21
Nassau	253	150	60	265	169	64	291	186	64	299	185	62
New York	3,951	2,237	57	3,979	2,244	57	4,227	2,427	57	4,411	2,334	53
Niagara	98	73	74	105	76	72	110	80	73	121	60	50
Oneida	191	108	57	200	111	56	207	107	52	216	106	49
Onondaga	333	221	66	325	219	67	342	219	64	348	201	58
Ontario	67	39	58	72	40	56	78	39	50	82	39	48
Orange	122	87	71	126	92	73	139	97	70	141	95	67
Orleans	23	10	43	22	8	36	20	8	40	18	6	33
Oswego	43	31	72	48	37	77	55	37	67	53	34	64
Otsego	50	26	52	49	32	65	54	29	54	53	26	49
Putnam										14	7	50
Queens	568	366	64	599	361	60	677	400	59	739	391	53
Rensselaer	107	68	63	109	71	65	108	72	67	108	54	50
Richmond	100	46	46	115	47	41	111	46	41	114	44	39
Rockland	61	28	46	63	33	52	70	31	44	71	35	49
St. Lawrence	61	26	42	63	26	41	70	27	39	69	24	35
Saratoga	53	31	59	50	34	68	55	36	65	60	35	58
Schenectady	133	89	68	127	88	69	134	94	70	131	80	61
Schoharie	20	11	55	21	10	48	20	12	60	19	12	63
Schuyler	12	6	50	12	6	50	11	7	64	10	4	40
Seneca	22	11	50	26	12	46	24	10	42	27	12	44
Steuben	74	44	60	66	43	65	68	48	71	68	44	65
Suffolk	144	69	48	155	81	52	181	84	41	180	99	55
Sullivan	38	25	70	40	25	63	44	31	70	46	28	61
Tioga	24	10	42	26	11	42	26	13	50	27	11	41
Tompkins	59	32	54	59	35	59	60	36	60	63	36	57
Ulster	69	40	58	65	41	63	74	41	55	76	29	38
Warren	43	28	65	44	28	64	52	31	60	60	26	43
Washington	39	18	46	35	18	51	36	18	50	37	13	35
Wayne	44	27	61	50	30	60	53	31	58	56	25	45
Westchester	515	290	56	540	298	55	564	322	57	584	336	58
Wyoming	34	15	44	33	12	36	30	12	40	35	10	29
Yates	22	17	77	23	18	78	24	17	71	21	17	81
	13,299	7,512	56	13,417	7,584	56	14,194	8,013	57	14,856	7,412	50

*A—numbers of members in County Society, B—numbers of members insured, C—percentage insured

in addition to an anesthetist to be present at the performance of a major operation?

(b) Can a nurse in the absence of a contrary hospital regulation, legally take the place of an assistant surgeon at the performance of an operation?

(c) Is a trained nurse entitled to administer an anesthesia, either in or out of a hospital?

25 Inquiry from a physician specializing in surgery as to forms for consents for operations

26 Inquiry from a physician for advice with regard to the following problem: A food handling company referred a prospective employee for examination to ascertain whether he suffered from a venereal disease. The examination revealed the presence of such disease. The physician questioned the advisability of reporting such information to the company.

27 Inquiry from a doctor as to whether two years after treatment has been terminated he can sue a patient for his unpaid bill without danger of being subjected to a malpractice suit.

28 Inquiry from a physician as to the length of time following treatment within which a patient is entitled to sue a doctor for malpractice.

29 Inquiry from a physician as to whether he could be required to reveal confidential information concerning welfare patients before he could enforce payment of his bill for such services.

30 Inquiry from a physician specializing in surgery as to whether it is proper for him to operate upon a patient making use of a nurse anesthetist.

Szold v Outlet Embroidery Company

A case of great importance to the State Society in connection with the operation of the Workmen's Compensation Law, as recently amended, came before the Court during the reporting period. In this case a physician brought suit against an employer to recover for medical services rendered to an injured workman of the employer, who had been injured in the course of his employment and thus came within the provisions of the Workmen's Compensation Law. The suing physician had not been authorized to render compensation medical care as required by the 1935 amendments to the Statute. It was the contention of the attorney for the physician first, that this amendment could not deprive the physician of his common law right to sue for

services rendered, and second, if the amendments attempted to do so it was unconstitutional.

The question involved in this case was vital to organized medicine for this action struck at the very foundation of the recent amendments to the Workmen's Compensation Law.

Your Counsel, on behalf of the Society, applied for and obtained permission from the Court to file a brief as amicus curiae. Cooperation was also secured from the attorneys for the State Insurance Fund and also from the Attorney General's office.

Mr Justice Shientag of the Supreme Court of this State in a carefully reasoned decision upheld our contentions and decided the case against the physician. The substance of his opinion was published in the July 1, 1936 issue of the STATE JOURNAL. From his decision an appeal was taken to the Appellate Division in which Court we again obtained permission to file a brief. The Appellate Division unanimously upheld Judge Shientag. The matter is now before the Court of Appeals and in that Court also your Counsel filed a brief on behalf of the Society. At this writing the Court of Appeals has not handed down its decision.

Other Counsel Activities

Your Counsel acting with the Committee on By-Laws has examined various proposed Amendments to the Constitution and By-Laws of the State Society and of a number of component County Societies and has rendered advice and made suggestions in connection therewith.

Your Counsel has also been in consultation with the members of the Committee on revision of the Constitution and By-Laws and has rendered advice and given opinions in connection with the matters before that Committee for consideration.

Your Counsel has also rendered advice to the Board of Censors in an appeal taken by a member of one of the component county societies, who had been disciplined by the County Society.

Your Counsel has frequently conferred with Dr David Kaliski, Chairman of the Committee on Workmen's Compen-

5 Inquiry on behalf of a physician who was entitled to receive payment from an insurance company for services rendered to a patient, as to the method of enforcing payment of a fair fee.

6 Inquiry from a physician as to the nature of the relations which a practicing physician should have with an Osteopath in connection with the treatment of compensation cases

7 Inquiry on behalf of a County Medical Society as to whether the Workman's Compensation Committee of a County Board of Supervisors could compel the medical profession of that County to accept fees for work under the Workman's Compensation Act under the schedule of fees in force for the treatment of welfare cases

8 Inquiry by a physician in charge of the X-ray Department of a large metropolitan hospital, as to the length of time the law requires hospitals to retain x-ray plates

9 Inquiry by a physician as to whether a doctor is obliged to examine a patient for the purpose of ascertaining whether or not he is intoxicated when requested to do so by an officer

10 Inquiry as to whether giving the diagnosis of a welfare case on the voucher is a breach of a confidential communication

11 Inquiry on behalf of a County Medical Society as to whether the County Commissioner of public welfare is entitled to restrict the number of visits to welfare patients for which a physician may receive payment, under the Welfare Law, with particular reference to the treatment of such cases as pneumonia

Inquiry as to whether it would be advisable for an individual physician to make a test case in an attempt to collect his fee under the Welfare Law for all necessary visits to a very ill patient

12 Inquiry by a physician who is the Medical Director of a charitable institution as to the possibility of the institution obtaining from all patients a valid waiver of claims for any accident that might occur while they remain inmates at the institution

13 Inquiry by a physician as to his responsibility for treatment rendered by another doctor to whom he has referred a patient

14 Inquiry on behalf of a physician as to his responsibility for the acts of another doctor to whom the physician's telephone calls are referred while he is away from his practice on a vacation

15 Inquiry by a physician as to whether it is proper for a doctor in rendering his bill for services to a welfare patient, to state on the bill the complete diagnosis

16 Inquiry on behalf of a County Medical Society concerning the precise scope of the malpractice defense to which a member of the Society is entitled when insured, under the group plan, and when not covered by such insurance.

17 Inquiry concerning the steps taken in the courts to prevent the practice of medicine by a corporation

18 Inquiry by a physician concerning the period of time within which an action may be brought against a physician upon charges that his negligence caused the death of a patient

19 Inquiry by a physician as to the extent to which an office assistant not licensed or registered as a physiotherapist may legally do physiotherapy work under the supervision and direction of the physician.

20 Inquiry from a physician as to whether a graduate medical student who had completed an internship, but had failed to pass his State Board examinations and to obtain his license to practice, could legally work in the office of a practicing physician and make house calls before he actually became licensed to practice.

21 Inquiry from a doctor at the head of the Department of Pathology of a hospital concerning the following problems with respect to autopsies

(a) The persons who may legally give permission for an autopsy

(b) The extent to which, in the performance of an autopsy, entire organs, or major portions of them, could be removed and retained for teaching purposes, or the building up of a pathology museum

(c) The right of a relative to grant permission for an autopsy upon the body of a married woman, who prior to her death was separated from her husband

22 Inquiry from a physician as to whether he could legally provide a life insurance company with an affidavit concerning the fact that he had treated a patient previously for tuberculosis when it appeared clear that the patient had perpetrated a fraud upon the insurance company in connection with obtaining a life insurance policy

23 Inquiry from one of the Committees of the Society as to the legality of a person without a medical degree advertising himself with the word, "Dr" before his name, with particular reference to instances of telephone listings when a man has a Ph D degree

24 Inquiry as to the following problems concerning operative procedure

(a) Does any State law require two surgeons

COMMITTEE ON WORKMEN'S COMPENSATION

April 15, 1937]

The Committee has had a number of conferences with officials of the Homeopathic and Osteopathic Societies with whom they have established cordial and cooperative relationships.

In addition to the routine business of the Committee, it has during the past year given especial consideration to a number of important matters among which may be mentioned (1) the Minimum Fee Schedule for the remainder of the State outside the Metropolitan area, (2) arbitration of Medical Bills and arbitration of charges of improper transfer of cases (lifting) from authorized and qualified physicians, (3) the inspection and authorization of Employers and Physicians Medical Bureaus, (4) the authorization and licensing of separate x-ray and other Laboratories, (5) simplification of the procedure of designating qualified and authorized physicians by means of code symbols, (6) the publication in the Medical Directory of the State Medical Society of the qualifications of all physicians authorized to treat compensation cases, (7) the submission to the Industrial Commissioner and the Attorney General of briefs on disputed interpretations or rulings affecting the amended law, (8) the preparation of a uniform application blank for physicians of all schools of practise, including osteopaths, (9) the participation as "amicus curiae" in a suit before the Supreme Court and the Appellate Division to test the right of a physician, not authorized to treat workmen's compensation cases, to submit a bill for such services, (10) participation in the deliberations of the Special Committee on Conference with the State Hospital Association in reference to the practices of hospitals in workmen's compensation matters.

One of the most important and far-reaching provisions of the amended act is that relating to the arbitration of disputed bills and all matters relating thereto by arbitration rather than resort to the courts is of vital importance to all the interested parties. It provides at once a prompt, inexpensive and equitable means of settlement of the pecuniary matters involved and at the same time affords an opportunity to all parties of interest to bring to light in the course of

the hearing any evidence of improper practise on either side. The participation of experienced physicians assures proper evaluation of the services of the physician whose bill is being contested at the same time affording an opportunity to the employer or carrier to submit evidence of improper or unethical medical practise or failure to conform to the various provisions of the law. The administration of this procedure by representatives of the Medical Society and of the Carriers' or Employers' organizations affords an opportunity for constructive cooperation in carrying out not only the letter but the spirit of the amended law with the chief purpose of providing the highest quality of medical care for the injured claimant at a reasonable cost.

Arbitrations In the course of the year five conferences were held with representatives of the American Arbitration Association, to whom we are greatly indebted for their kind help, and with representatives of the insurance carriers and the Department of Labor, in order to formulate a legal and workable arbitration procedure for the adjudication of disputed bills under Section 13-g. The methods of procedure have been agreed upon and an office has been established by the Compensation Insurance Rating Board, at 100 East 42 Street, New York City, as a central bureau for the clearing of all bills submitted to arbitration. Arbitrations are now being held at this Bureau for members of New York, Bronx, Richmond, and Queens Counties, and shortly arbitrations will be held in Kings, Westchester, and other adjacent counties. It is the purpose of your Committee to act as a clearinghouse for all arbitrations, cooperating with the Compensation Insurance Rating Board to the end that calendars may be arranged and arbitrations held in all parts of the State in localities convenient to the physicians whose bills are being adjudicated. In the same manner the arbitration of cases improperly transferred or lifted under Section 13-a(3) will be adjudicated.

Approximately 2500 medical bills have been contested and submitted for arbitration. After a conference with the officials of the Compensation Insurance Rating Board and the Compensation Medical Registrar of the Department of Labor

sation, and has given his advice and opinion in regard to the many questions that have arisen during the operation of the Workmen's Compensation Law

Conclusion

To the many members of your Society who have been so generous in giving us unsparingly of their time and talents in the handling of malpractice actions, in court and out, we record our grateful thanks. Without their generous assistance it would have been impossible to obtain the results shown by this report.

Respectfully submitted,

LORENZ J. BROSNAN, Counsel

February 1, 1937

REPORT OF COMMITTEE ON WORKMEN'S COMPENSATION

To the House of Delegates, Gentlemen

Your Committee on Workmen's Compensation herewith submits a report of its activities for the year ending March 1, 1937

A total of 13,476 licensed physicians were qualified by the various County Society Boards up to March 5, 1937. Of these 9,222 are registered in the New York district, 1,274 in the Albany district, 955 in the Buffalo district, 1,110 in the Syracuse district, and 915 in the Rochester district of the Department of Labor. Following is a tabulation according to counties in the State

Albany	235	Niagara	132
Allegany	35	Oneida	180
Bronx	1490	Onondaga	307
Broome	165	Ontario	73
Cattaraugus	65	Orange	114
Cayuga	49	Orleans	22
Chautauqua	86	Oswego	56
Chemung	80	Otsego	40
Chenango	33	Queens	777
Clinton	39	Rensselaer	102
Columbia	28	Richmond	87
Cortland	38	Rockland	64
Delaware	37	St. Lawrence	68
Dutchess-Putnam	107	Saratoga	52
Erie	637	Schenectady	69
Essex	27	Schoharie	24
Franklin	54	Schuyler	9
Fulton	57	Seneca	24
Genesee	39	Steuben	67
Herkimer	46	Suffolk	141
Greene	30	Sullivan	48
Jefferson	90	Tioga	31
Kings	2433	Tompkins	51
Lewis	18	Ulster	89
Livingston	46	Warren	45
Madison	29	Washington	33
Monroe	392	Wayne	56
Montgomery	44	Westchester	509
New York	3402	Wyoming	33
Nassau	319	Yates	23

During the year seventeen regular meetings of the Committee were held. At the request of the Committee the President of the State Society appointed two advisory members to the committee from "up-State." Drs. Harry C. Guess and Joseph P. Henry were appointed in October. This addition to the committee proved a very valuable one and it is recommended that the Workmen's Compensation Committee of three be enlarged to five, at least two of whom shall be members of county societies outside the metropolitan area.

The Committee has participated in twenty-six meetings, conferences, and hearings before the Department of Labor (Commissioner, Industrial Council, etc.) Matters of interest to the State Society or to a particular region or County were considered and will be mentioned in detail below. In addition numerous informal conferences were held. The frequency of the conferences indicates the necessity for continuous contact between the Society and the Department of Labor, if the interests of the medical profession are to be safeguarded. It may be pointed out here that your representatives took a broad stand in general in the hope of aiding the authorities in the proper administration of the amended workmen's compensation law in the interest of all parties. It is felt that only by a fair and equitable carrying out of the new law by all parties concerned can the best interests of the injured workmen of the State be safeguarded. This is the primary purpose of the amended law and in this spirit the Committee has attempted to function.

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notary, who shall administer the oath and make a record of the proceedings on the prescribed form. A stenographic transcript of the hearing shall not be required.

8 Arbitration proceedings The claimant physician shall deposit \$2.00 with the recording clerk as a minimum arbitration fee which shall be subject to return as provided in Rule 10. The claimant physician shall present his case, call his witnesses, present his proofs and submit to questions thereon. The defending insurance carrier shall present its defense, call its witnesses, present its proofs and submit to questions thereon. Following the hearing the decision of the arbitrators shall be made in executive session, the arbitrators to be the only persons present at such session. If the four arbitrators cannot agree upon an award they shall select a fifth arbitrator as provided in Section 13-g (2). The case shall then be adjourned and referred to the fifth arbitrator for decision. All papers and exhibits in the proceedings, together with the findings and conclusions of the original arbitrators shall then be sent to the selected arbitrator. If necessary, the fifth arbitrator may order a further hearing before him.

9 Forwarding arbitrators' decision or award The decision or award shall be signed and acknowledged by the arbitrators. The original shall be mailed to the Labor Department and copies thereof shall be sent to the physician, insurance carrier, Medical Society and Rating Board by the recording clerk.

10 Payment of award and arbitration fees The award shall provide for payment as follows: The insurance carrier shall draw two checks, one check for 95% of the award payable to the order of the claimant physician, and the second check for 10% of the award payable to the order of the Commissioner, the latter check to cover the carrier's share and claimant physician's share of the arbitration fee, provided, however, that if the carrier and claimant physician are each required to pay the minimum arbitration fee of \$2.00, the check to the claimant physician shall be for an amount equal to the award less \$2.00, the check to the Commissioner shall be for the sum of \$4.00, and the recording clerk shall return to the claimant physician the minimum arbitration fee of \$2.00 which was deposited by such physician at the time of the arbitration hearing. In the case where the claim is disallowed or where the award is for an amount less than \$2.00, the carrier shall mail its check for the minimum fee of \$2.00 to the Commissioner and the recording clerk shall transmit to the Commissioner the minimum arbitration fee of \$2.00 which

was deposited by the claimant physician at the time of the arbitration hearing.

Claim by Physician for Improper Transfer or Lifting of a Case

§ 13-a 3(2) An authorized physician from whom the case has been transferred shall have the right of appeal to an arbitration committee as provided in subdivision two of section thirteen-g and if said arbitration committee finds that the transfer was not authorized by this section, said employer shall pay to the physician a sum equal to the total fee earned by the physician to whom the care of the injured employee has been transferred, or such proportion of said fee as the arbitration committee shall deem adequate.

I, Dr _____ M.D. of _____ office address _____
 _____ D.O. _____
 a qualified physician registered under Chapters 258 and 930 of the laws of 1935 registration no. and qualification _____
 request arbitration under Section 13-a 3(2) because of _____
 improper transfer under Section 13-a of patient _____
 Injured on _____
 address _____
 Employed by _____ and transferred to _____
 and treated by me on _____ by _____ employer or carrier
 the care of _____

The Minimum Fee Schedule has been the subject of discussion and conferences ever since the passage of the amended act. It was only officially promulgated by the Industrial Commissioner for the metropolitan area on May 1, 1936. To this day a minimum fee schedule for the remainder of the state has not been announced by the Commissioner. Your Committee has submitted evidence to show that the metropolitan schedule is in fact the prevailing rate throughout the greater part of the state. Your committee has obtained from a number of county societies scattered throughout the state compensation schedules which have been in effect for a number of years and in some instances preceding the amendment of the law, tending to show that many insurance carriers have been paying physicians bills submitted under these schedules which are no lower than the metropolitan schedule and in a few instances higher. At a public hearing called by the Industrial Commissioner in Albany on May 26, 1936 which was attended by your committee as

many of these bills were amicably settled and the remainder are now being placed on the calendar for arbitration

Two calendars a week are being disposed of and shortly it is felt that arbitration proceedings will not be necessary oftener than once or twice a month for the largest counties

Only recently at the urgent insistence of your Committee have the self-insured employers' organizations promised to set up arbitration proceedings in accordance with the law

A set of ten rules was adopted and established by the Industrial Council as follows

Rules of Procedure on Arbitration of Medical Bills

Under Sections 13-A (3) and 13-C of the Workmen's Compensation Law

Abbreviations

"Commissioner" refers to the Industrial Commissioner of the State of New York.

"Labor Department" refers to the Department of Labor of the State of New York

"Medical Society" refers to the Medical Society of the State of New York

"Rating Board" refers to the Compensation Insurance Rating Board

Procedure

1 Notice of objection to medical bill by insurance carrier On receipt of a medical bill which is regarded as unfair, notice of any objection thereto shall be given by the employer or carrier in accordance with Section 13-g (1) within thirty days after receipt of the bill on a form approved for this purpose. The original is to be mailed to the Commissioner and copies thereof shall be sent to the claimant physician, Medical Society and Rating Board. The notice shall briefly state all objections to the bill. In cases where there has been no determination as to whether the injury is compensable, the notice of objection shall so state

2 Claim by physician of improper transfer An "authorized" physician claiming that a case has been improperly transferred may arbitrate as provided in Section 13-a (3) by filing his claim on an approved form with the Commissioner and forwarding copies thereof to the Medical Society, Rating Board and insurance carrier

3 Preparation of arbitration calendar The Medical Society and the Rating Board shall jointly prepare a calendar of cases for arbitration and mutually arrange for the

time and place of hearing. A copy of such calendar shall be mailed by the Rating Board to the Commissioner

4 Selection of arbitrators In accordance with Section 13-g (2) an arbitration committee shall comprise two physicians designated by the Medical Society and two physicians designated by the Rating Board. The Rating Board shall prepare a panel of arbitrators who are members of the Medical Society. The names on the panel shall give addresses and qualifications. From this panel the Rating Board shall choose two arbitrators, giving consideration to the nature of the case and the place where the arbitrators shall meet, provided, however, that the insurance carrier may name arbitrators of its own selection in any particular case, the nominations to be made through the Rating Board. The Medical Society shall prepare panels of arbitrators and choose therefrom two arbitrators to serve at the time and place agreed upon

5 Notices relating to arbitration hearing The Rating Board shall mail notice of the hearing containing the time and place thereof, with the names of the arbitrators which it has selected, at least eight days before the date of the hearing, to the insurance carrier and the arbitrators selected by the Rating Board. The Medical Society shall mail like notice of the hearing together with the names of the arbitrators which it has selected, to such arbitrators and the physician making the claim. The place of meeting shall be arranged in conference with the Medical Society

6 Submission of formal agreements to arbitration required The parties to arbitration shall sign a formal agreement, known as a "Submission," to submit the controversy to arbitration. The insurance carrier shall show in the proper spaces on the Submission form the names of the parties, the sum in dispute and claimed by plaintiff, the name of the employee to whom the medical or professional services were rendered and the date of notice of Objection to Medical Bill. The insurance carrier shall then sign and acknowledge such form before a notary and send it together with the Objection to Medical Bill to the claimant physician. The claimant physician, if agreeing to arbitration, shall also sign and acknowledge the said Submission form and return it to the insurance carrier. The latter shall then forward the completely executed form to the Rating Board for further action in arbitration

7 Record of arbitration proceedings The arbitrators shall be required to take the oath of office. The Rating Board shall appoint a recording clerk, qualified as a

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in relation to the authorization of an employer's compensation medical bureau

28 The bureau should be located in the industrial plant or in the immediate vicinity

29 The question of the necessity of the presence of a physician during working hours, or the availability of a physician at stated hours should be determined by an inspection of the plant to ascertain the nature of the hazards and the frequency of accidents

30 The bureau shall be well housed with sufficient space, light, and air and shall conform to reasonable sanitary requirements Proper facilities in the form of personnel for assistance in emergencies, instruments, sterilizers, dressings, drugs, shall be available at all times and in amounts proportionate to the size of the plant and the number of employees Such facilities shall be adequate for more than mere emergency care and for the more severe type of industrial injury

31 A bureau license may be given for a stated project which, because of the hazards of the project and the frequency of accidents, requires continued medical care and such license shall be for the life of the given project only In such cases all employees of all subcontractors shall be covered by the license

32 No license shall be issued to an employer to cover any but his own employees except as indicated in Rule 31

33 First aid stations—No license is required to operate a first aid station by an employer of labor Such first aid or emergency station should be properly equipped for first aid in accordance with the type of hazard encountered at the particular place of employment.

34 Form C-105, a notice of the rights of an injured employee and the responsibilities of the employer, shall be posted in each compensation medical bureau and first aid station

35 All compensation medical bureaus operated by summer camps and other institutions wherein such camps and institutions are operating for a profit shall be charged a license fee of \$25.00 per annum for the operation of such medical bureaus which are in operation for six months of the year or less

Up to the present time approximately 350 such bureau licenses have been applied for, of which approximately 150 have been already licensed or approved for license and about thirty have been refused by the various county society

boards A number of these are being reconsidered A considerable number of applications for employers licenses were withdrawn when the rules were promulgated and it was ascertained that only a first aid station was required by the employer

It is urged that County Societies proceed at once to inspect and recommend to the Industrial Commissioner such Bureaus as meet with the requirements of the law and conform to the above rules and regulations

Laboratory licenses x-ray and pathology Up to the present time fewer than ten separate laboratory licenses under Section 13-c have been applied for and as yet none has been approved

Physicians medical bureaus During the past few months your Committee has concerned itself with the licensing of physician's medical bureaus under Section 13-c(1) and has devised an application form which has been promulgated by the Industrial Commissioner and is known as C-121

The Commissioner has ruled that "When a physician in association or in co-partnership with another physician or physicians, or through physician or physicians as employee or agent maintains and operates one or more offices principally for the treatment of injured claimants under the Workmen's Compensation Act, he shall secure a Compensation Medical Bureau license" For such license the fee is \$50 per year for each office Application forms may be obtained from the Department of Labor and must be sent to the County Society in which the bureau is located for inspection and approval of the Bureau No license may be issued by the Commissioner in the absence of recommendation from the appropriate society or Board (Section 13-c) Applications for the conduct of such Bureaus are now being received and inspections by the County Society Boards are now under way County Societies should give wide publicity to the need for such licenses and proceed at once to inspect and notify the Commissioner of the approval or disapproval of the Society

Simplification of classifications In the course of the year your Committee recommended a revision and simplification

well as by representatives of many county societies throughout the state, it was the unanimous opinion of all the physicians present that the prevailing rate was in fact no lower than the metropolitan schedule and the opinion was generally voiced that any rate lower than the metropolitan schedule would work a hardship to the physicians of the state and tend to lower the standard of medical care. The carriers and employers representatives based their argument on lower wage rates in the urban areas and the lower cost of providing medical care on the part of physicians. These arguments were refuted. No actual figures or statistics to prove their contentions have been submitted so far as is known. That certain employers and carriers were able to "purchase" medical care at rates lower than the metropolitan area by means of concentrating the work in the hands of a few favored company doctors is probably true. This was true also in the metropolitan area but it did not prevent an agreement between the carriers' organization and representatives and your committee on a schedule which represented fair compensation under the free choice principle, and it did not deter the Industrial Commissioner from promulgating such a schedule for the metropolitan area. One of the purposes of the new law is to improve the quality of medical service and to prevent many of the evils and abuses of the old law by allowing the patient to select his own qualified physician. This desirable result will be defeated by paying doctors a fee lower than the prevailing rate for working people in this state. In many of the smaller communities where most of the inhabitants may be placed in the working-class category it will result in physicians being paid lower fees than are paid in private practice and will tend to lower fees in private practice. It will inevitably lead to a refusal on the part of the best qualified physicians in these communities to treat injured workmen or possibly to combine to refuse all cases except at their own terms. It is strongly recommended that the State Society memorialize the Industrial Commissioner to promulgate the metropolitan schedule for the entire state to avoid the above possibilities and to assure the widest participation in the care of the injured on

the part of the largest number of ethical and qualified doctors of this state.

At the hearing in Albany the Commissioner proposed a reduction of ten per cent of the metropolitan schedule for communities of 75,000 to 35,000 and of fifteen per cent for all communities under 35,000 population. Due to the pressure brought to bear by the profession of the state this schedule was not announced and physicians in these communities are rendering bills in accordance with prevailing rates under the old competitive system. This has led to a great deal of confusion and has retarded the putting into effect of all the provisions of the amended law. It is again strongly urged that the Industrial Commissioner promulgate the metropolitan schedule at once. In the metropolitan area the Commissioner has permitted a deduction of five per cent from all bills of \$15.00 and over if paid within thirty days. There has been widespread dissatisfaction with this provision. It is much too large a discount and has not had the effect of stimulating prompt payment generally, but has actually had the effect of causing numerous disputes between physicians and carriers and employers. This rule should be rescinded. Surely without a penalty for failure to pay bills within the same period it is unfair, and does not accomplish its purpose. It is recommended that the Commissioner be urged to rescind or modify this item of the fee schedule by adding a penalty of five per cent for non-payment within thirty days, and certainly not include it in any schedule which he may promulgate for the entire state.

Compensation Medical Bureaus

The inspections and recommendations of Employers' medical bureaus under Section 13-c (1) were begun during the year by the various County Society Boards in accordance with rules and regulations formulated by this Committee after conference with representatives of the employers and self-assurers organizations and published by the Industrial Commissioner (December 1, 1936).

27 The character and frequency of accidents, the number of employees in a given plant and the availability of qualified medical care in the immediate vicinity of the place of employment should be considered

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in relation to the authorization of an employer's compensation medical bureau

28. The bureau should be located in the industrial plant or in the immediate vicinity

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Simplification of classifications In the course of the year your Committee recommended a revision and simplification

tion of the classifications granted by the County Society Boards to applicant physicians with a view of simplifying the symbols

This was necessitated first, by the limitations of space in the State Directory and secondly, by a realization that certain local county societies had misunderstood the instructions of the Committee, issued at the inception of the new law, due to the haste with which the qualifying procedure was undertaken in the summer of 1935. The meaning of Section 13-b 2 was not fully understood by certain County Societies, so that in many instances physicians were granted special symbols in many branches, even though their work embraced what is generally known as "general practice." A large amount of explanatory correspondence was sent out to the various societies and published in the *STATE JOURNAL* so that for the most part physicians have now been properly classified. In general it may be said that the symbol "X" repre-

sents the field of general practice and special additional symbols are not required or justified unless the physician, though not a specialist, is especially qualified by education, training, and experience in a special field. It is the responsibility under Section 13-b of the County Society Board to qualify a physician and designate his type of practice strictly in accordance with his actual qualifications.

Publication of classifications. Through the kind cooperation of the *JOURNAL* Management Committee a special marker has been placed before the name of every physician in the state who is qualified under the Workmen's Compensation Law, and the actual symbols granted him appear under his name. Despite the haste with which the work was done very few mistakes were made. It is expected that next year's Directory will contain a more accurate roster of all physicians qualified under the Workmen's Compensation Act, together with their proper symbols. A roster of names and qualifications of all physicians in the state will be prepared by the State Office and at the same time memorialize the Industrial County Society for the entire state to avoid the at the possibilities and to assure the widest participation in the care of the injured on

Opinions rendered by Attorney General. In the course of the year conferences with the Industrial Council have resulted in the submission to the Attorney General of many moot points in the law. Opinions have been rendered by the Attorney General to the Industrial Commissioner in the following items:

1 The extent of authority that may be used by Compensation Boards in considering the applications filed by physicians for authorization to practice under the amended Act.

2 An opinion as to the necessity of licensing corporate or lay-owned x-ray laboratories seeking licenses under Section 13-c.

3 An opinion concerning the failure of the law to provide a penalty against a physician treating injured employees without authorization and suggesting an amendment to the Law providing that any violation of any of its provisions shall constitute a misdemeanor.

4 An opinion indicating that a certain clause in the physician's application blank waiving certain rights of the applicant shall be eliminated.

Following this opinion the application blank submitted to physicians was modified by the elimination of this waiver clause.

5 An opinion indicating that insurance carriers and employers shall pay medical bills submitted by public hospitals in the city of New York for services rendered by physicians because of section 692-e of the New York State Charter providing that "physicians shall serve in such hospitals without compensation."

This prohibition has been modified in the new New York City Charter which goes into effect in 1938 by the inclusion of a clause permitting the payment of physicians for medical services in compensation cases.

6 An opinion stating that compensation x-ray and diagnostic laboratories even though owned by lay-persons or corporations may submit bills for services rendered by qualified physicians.

Your Committee will with the sanction of the State Society press for the submission of an amendment to the Law to include in the amended Act under Section 13-b 3 the word "owned" before the words "operated or supervised by qualified physicians" so that the clause shall read "Laboratories and Bureaus engaged in x-ray diagnosis or treatment, etc. shall be owned, operated, and supervised by qualified physicians duly authorized under this Chapter." This was the wording of the original legislation, but modified without our consent or advice.

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7 An opinion indicating that all bills for treatment rendered by physicians outside this State contested by the carriers or employers must be referred to the medical bill calendar of the Department of Labor for adjudication

8 An opinion defining the authority of the Industrial Commissioner in adopting and promulgating rules regulating insurance carriers in respect to sending out lists of authorized physicians to their policy holders, as well as the procedure to be followed by medical inspectors and consultants employed by them

This opinion gave rise to Rules 23, 24, 25, and 26, promulgated by the Industrial Commissioner on December 1 1936

Your Committee attended one hearing by the Commissioner in which an insurance carrier was charged with violation of these rules and the matter has been referred by the Industrial Commissioner to the Commissioner of Insurance of the State for further opinion and action against the carrier

Attorney General's Opinion

Replying to your letter of April 14, 1936, attaching memorandum to Dr David J Kaliski, Chairman of the Committee on Workmen's Compensation, dated April 14, 1936, together with memorandum of Leon S Senior, general manager of the Compensation Insurance Rating Board dated April 20, 1936, all of which are presented to this department to determine the policy and attitude of this department to the practice of certain insurance carriers who are writing their policy-holders suggesting that in case of injuries to their employees a suggested physician take care of the worker, please be advised that our opinion in the matter is as follows

The purpose of the amendments to Section 13 of the Workmen's Compensation Law is best summarized by the special message of the Governor of the State of New York dated March 19, 1934 (S B 184, pp 43 and 44) From it we obtain the true intent and purpose of the enactments of the amendments (*In re Sitkins Will*, 271 NYS 688, 151 Misc 448) namely to permit the employee freedom of action in choosing his physician It was intended by the amendments that the employee's choice be free from coercion or persuasion

Under Section 13-A it is provided that "if the employee is unable, due to the nature of the injury, to select such authorized physician, and the emergency nature

of the injury requires immediate medical treatment and care, or if he does not desire to select a physician and in writing so advises the employer, the employer shall promptly provide him with the necessary medical care, provided however that nothing herein contained shall operate to prevent such employee, when subsequently able to do so, from selecting for continuance of any medical treatment or care required, any physician authorized by the commissioner to render medical care"

The wording of this section makes it clear that the right of free choice is unqualifiedly reserved to the employee, though the employer is responsible for the payment of medical care under the section

Section 13-j prohibits the participation of an insurance carrier in the treatment of injured workmen Section 13-j reads as follows

Medical or surgical treatment by insurance carriers and employers (1) An insurance carrier shall not participate in the treatment of injured workmen, except, that it may employ medical inspectors to examine compensation cases periodically, while under treatment, and report upon the adequacy of medical care, and other matters relative to the medical conduct of the case (2) An employer may maintain a compensation medical bureau at the place or places of employment, if such bureau is required because of the nature of industrial hazards, or the frequency of injuries to employees arising out of industry Such bureau or bureaus shall be authorized and licensed pursuant to section thirteen-c, and their use by an injured employee shall be optional in accordance with the provisions of section thirteen-a

While this section reserves to the insurance carriers some right of supervision, the actual treatment and control seems to be definitely vested in the employee

We are of the opinion, that by the language of section 13-j, the insurance carrier is precluded from sharing, participating or having a part in the treatment of the injured employee To give this section any other interpretation would be to negative the purpose of the amendments to section 13

The insurance carriers rely upon section 13-i for their authority to recommend or solicit in behalf of their physicians Section 13-i reads as follows

Solicitation prohibited Any person who shall make it a business to solicit employment for any person authorized by this chapter to render medical care to an injured employee any person authorized by this chapter to render in connection with any claim under this chapter, shall be guilty of a misdemeanor, except that the employer shall have the right subject to regulations prescribed by the commission to recommend to

tion of the classifications granted by the County Society Boards to applicant physicians with a view of simplifying the symbols

This was necessitated first, by the limitations of space in the State Directory and secondly, by a realization that certain local county societies had misunderstood the instructions of the Committee, issued at the inception of the new law, due to the haste with which the qualifying procedure was undertaken in the summer of 1935. The meaning of Section 13-b 2 was not fully understood by certain County Societies, so that in many instances physicians were granted special symbols in many branches, even though their work embraced what is generally known as "general practice." A large amount of explanatory correspondence was sent out to the various societies and published in the STATE JOURNAL so that for the most part physicians have now been properly classified. In general it may be said that the symbol "X" represents the field of general practice and special additional symbols are not required or justified unless the physician, though not a specialist, is especially qualified by education, training, and experience in a special field. It is the responsibility under Section 13-b of the County Society Board to qualify a physician and designate his type of practice strictly in accordance with his actual qualifications.

Publication of classifications. Through the kind cooperation of the JOURNAL Management Committee a special marker has been placed before the name of every physician in the state who is qualified under the Workmen's Compensation Law, and the actual symbols granted him appear under his name. Despite the haste with which the work was done very few mistakes were made. It is expected that next year's Directory will contain a more accurate roster of all physicians qualified under the Workmen's Compensation Act, together with their proper symbols. A roster of names and qualifications of all physicians in the recommendations of our office and at the memorialize the Industrial County Society to promulgate the metropolitan County Society for the entire state to avoid the all the possibilities and to assure the widest participation in the care of the injured on

Opinions rendered by Attorney General. In the course of the year conferences with the Industrial Council have resulted in the submission to the Attorney General of many moot points in the law. Opinions have been rendered by the Attorney General to the Industrial Commissioner in the following items:

1 The extent of authority that may be used by Compensation Boards in considering the applications filed by physicians for authorization to practice under the amended Act

2 An opinion as to the necessity of licensing corporate or lay-owned x-ray laboratories seeking licenses under Section 13-c

3 An opinion concerning the failure of the law to provide a penalty against a physician treating injured employees without authorization and suggesting an amendment to the Law providing that any violation of any of its provisions shall constitute a misdemeanor

4 An opinion indicating that a certain clause in the physician's application blank waiving certain rights of the applicant shall be eliminated

Following this opinion the application blank submitted to physicians was modified by the elimination of this waiver clause.

5 An opinion indicating that insurance carriers and employers shall pay medical bills submitted by public hospitals in the city of New York for services rendered by physicians because of section 692-e of the New York State Charter providing that "physicians shall serve in such hospitals without compensation"

This prohibition has been modified in the new New York City Charter which goes into effect in 1938 by the inclusion of a clause permitting the payment of physicians for medical services in compensation cases

6 An opinion stating that compensation x-ray and diagnostic laboratories even though owned by lay-persons or corporations may submit bills for services rendered by qualified physicians

Your Committee will with the sanction of the State Society press for the submission of an amendment to the Law to include in the amended Act under Section 13-b 3 the word "owned" before the words "operated or supervised by qualified physicians" so that the clause shall read "Laboratories and Bureaus engaged in x-ray diagnosis or treatment, etc shall be owned, operated, and supervised by qualified physicians duly authorized under this Chapter." This was the wording of the original legislation, but modified without our consent or advice

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7 An opinion indicating that all bills for treatment rendered by physicians outside this State contested by the carriers or employers must be referred to the medical bill calendar of the Department of Labor for adjudication

8 An opinion defining the authority of the Industrial Commissioner in adopting and promulgating rules regulating insurance carriers in respect to sending out lists of authorized physicians to their policy holders, as well as the procedure to be followed by medical inspectors and consultants employed by them

This opinion gave rise to Rules 23, 24, 25, and 26, promulgated by the Industrial Commissioner on December 1 1936

Your Committee attended one hearing by the Commissioner in which an insurance carrier was charged with violation of these rules and the matter has been referred by the Industrial Commissioner to the Commissioner of Insurance of the State for further opinion and action against the carrier

Attorney General's Opinion

Replying to your letter of April 14, 1936, attaching memorandum to Dr David J Kaliski, Chairman of the Committee on Workmen's Compensation, dated April 14, 1936, together with memorandum of Leon Senior, general manager of the Compensation Insurance Rating Board dated April 20, 1936, all of which are presented to this department to determine the policy and attitude of this department to the practice of certain insurance carriers who are writing their policy-holders suggesting that in case of injuries to their employees a suggested physician take care of the worker, please be advised that our opinion in the matter is as follows

The purpose of the amendments to Section 13 of the Workmen's Compensation Law is best summarized by the special message of the Governor of the State of New York dated March 19, 1934 (S B 184, pp 43 and 44) From it we obtain the true intent and purpose of the enactments of the amendments (*In re Sitkins Will*, 271 NYS 688, 151 Misc 448) namely to permit the employee freedom of action in choosing his physician. It was intended by the amendments that the employee's choice be free from coercion or persuasion

Under Section 13-A it is provided that "if the employee is unable, due to the nature of the injury, to select such authorized physician, and the emergency nature

of the injury requires immediate medical treatment and care, or if he does not desire to select a physician and in writing so advises the employer, the employer shall promptly provide him with the necessary medical care, provided however that nothing herein contained shall operate to prevent such employee, when subsequently able to do so, from selecting for continuance of any medical treatment or care required, any physician authorized by the commissioner to render medical care"

The wording of this section makes it clear that the right of free choice is unqualifiedly reserved to the employee, though the employer is responsible for the payment of medical care under the section

Section 13-j prohibits the participation of an insurance carrier in the treatment of injured workmen Section 13-j reads as follows

Medical or surgical treatment by insurance carriers and employers (1) An insurance carrier shall not participate in the treatment of injured workmen, except, that it may employ medical inspectors to examine compensation cases periodically, while under treatment, and report upon the adequacy of medical care, and other matters relative to the medical conduct of the case (2) An employer may maintain a compensation medical bureau at the place or places of employment, if such bureau is required because of the nature of the industrial hazards, or the frequency of injuries to employees arising out of industry Such bureau or bureaus shall be authorized and licensed pursuant to section thirteen-c, and their use by an injured employee shall be optional in accordance with the provisions of section thirteen-a

While this section reserves to the insurance carriers some right of supervision, the actual treatment and control seems to be definitely vested in the employee

We are of the opinion, that by the language of section 13-j, the insurance carrier is precluded from sharing, participating or having a part in the treatment of the injured employee To give this section any other interpretation would be to negative the purpose of the amendments to section 13

The insurance carriers rely upon section 13-i for their authority to recommend or solicit in behalf of their physicians Section 13-i reads as follows

Solicitation prohibited Any person who shall make it a business to solicit employment for any person authorized by this chapter to render medical care to an injured employee any person authorized by this chapter to render in connection with any claim under this chapter, shall be guilty of a misdemeanor, except that the employer shall have the right subject to regulations prescribed by the commission to recommend to

the injured employee the names of enrolled physicians who he believes to be competent to treat him.

This permission to recommend, however, is granted only where the employee has waived his right or is unable to exercise it. It is not given to the employer as a right in contravention to the employee's right to free choice of physician.

* *

An opinion was obtained by the Industrial Board from the Attorney General that it is not necessary for a licensed physician to be listed on the panel of authorized physicians provided such physician merely makes physical examinations and gives testimony for claimants at hearings and does not treat, that the claimant may pay such physician for his services and that only physicians *rendering treatment* under the Act are stopped from receiving fees from claimants and must have recourse to the employer or carrier.

The Committee has under consideration a uniform physician's application blank meeting all requirements of the law in accordance with the rulings of the Attorney General. It will be available to all new applicants regardless of their Society or School affiliations shortly.

Recently the Industrial Commissioner held a hearing to which insurance carriers and self-insured employers were invited to attend and to submit statements concerning medical costs covering a period of one year prior to the amended Act, and a like period subsequent to the amendment.

At this hearing the insurance carriers stated that they were unable to present definite figures and accurate statistics at this time. They further stated that they would not be able to submit figures for at least another year.

It was merely the impression of certain insurance carriers that general medical costs had risen. How much of this supposed rise could be attributed to the actual cost of medical care they were not able to ascertain at this time.

Your Committee was represented at this meeting and submitted the belief that under the new law the quality of medical care had increased materially, and that it was their opinion that certain representatives of insurance carriers were of the impression that the cost of medical care had not risen. Your Committee expressed

the opinion that with the control of many abuses which existed under the old law and which are rapidly disappearing now, and as the result of the arbitration of disputed medical bills, the cost of medical care will not materially increase, and that there might even be a decline in the costs to the employers of the State. The fact that self-insurers have not availed themselves of arbitration up to the present time is significant in this regard.

The right of a licensed physician to accept and treat Workmen's Compensation cases without being qualified by the medical societies and authorized by the Industrial Commissioner was tested in the courts during the year. The plaintiff in the case was a licensed but unauthorized physician who treated an injured employee entitled to medical care under the Workmen's Compensation Law and with the consent of the employer. The physician then sued the employer in the Court to enforce payment of his bill. He did not allege in his complaint, however, that he had been duly authorized to render medical care under the Workmen's Compensation Act as amended in 1935.

The question of Law came up for decision before Justice Bernard Shientag in the Supreme Court of New York County. A very sweeping and significant decision was handed down by the learned justice and was published in the *Law Journal*, June 4, 1936.

The Justice held that

1 The Legislature has power to abrogate in whole or in part the common-law rights of physicians who treat Workmen's Compensation cases, and that a physician's exclusive remedy to recover payment for treating compensation cases shall be under the Workmen's Compensation Law and not in the Courts, that the Legislature may by reasonable provisions restrict and limit the contractual relations between physicians on the one hand and employers or injured employees on the other, and that reasonable restrictions may be made applicable not alone to the awards to physicians under the Workmen's Compensation Law but to actions for services in the courts as well.

2 The requirement that only physicians who are specially authorized by the Industrial Commissioner for that purpose may treat injured employees in accordance with the provisions of the Workmen's Compensation Law is a reasonable one, calculated to accomplish the humane objects of that

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statute and to do away with abuses and evil practices that arose in connection with its administrations

3 No physician under the amended statute is permitted to treat compensation cases or entitled to be paid therefore unless he is "authorized" by the Industrial Commissioner, and this applies whether the physician is chosen by the employee or by the employer

4 Assuming but not deciding that a physician chosen by an employer to treat a compensation case may, despite the amended statute, sue the employer in the courts for payment of his services, as a condition to recovery he is required to allege and prove that he was duly authorized to render medical care to injured employees under the Workmen's Compensation Law

This sweeping decision was upheld unanimously by the Appellate Division of the Supreme Court and permission was given the appellant to take the case to the Court of Appeals where it now rests pending a decision

A few sentences of the Justice's decision are worthy of quotation in this connection

It is significant that the Medical Society of the State of New York as *amicus curiae* has submitted a most convincing brief in support of the position here taken. Courts should be slow to interfere in a field where the Legislature is competent to act.

The Workmen's Compensation Law as a whole and its component parts should be liberally construed with a view to the accomplishment of this humane purpose.

Your Committee entered this case as "*amicus curiae*" and submitted a brief which was prepared by Mr. Lorenz J. Brosan, to whom the State Society is greatly indebted for his labors in this and other important issues

A decision was handed down by Justice McLaughlin of the Supreme Court of the Bronx under date of June 12, 1936, in the case of two members of the medical profession who had formed a partnership to engage in soliciting business and dividing the fees in Workmen's Compensation cases. One of these physicians sued in the court for the dissolution of the partnership. The Justice in commenting on this case stated that the situation at the time the partnership was formed, while not illegal, was certainly unethical. As long as their activities trespassed on

the realm of professional ethics only, the Courts were not concerned. After July 1, 1935, however, a Law went into effect which allowed an injured employee to choose his own physician and forbade the splitting of fees received for treating injured employees

The Justice's decision was to the effect that as soon as the Law went into effect the partnership became illegal. The prayer of the plaintiff to dissolve the partnership on that ground therefore was granted

This decision gives force to the provisions of the Law which forbid the splitting or division of fees in Workmen's Compensation cases. The decision makes no comment on a legitimate partnership entered into for a proper purpose under the Workmen's Compensation Act

Under date of June 10, 1936, your Committee submitted a brief to the effect that neither a layman nor a corporation may hire doctors for the purpose of engaging in the "practice of medicine" without violating the provisions of the Education Law, and holding that no lay-owned or corporate-owned compensation laboratory or bureau should be licensed under Section 13-c of the amended Workmen's Compensation Act

This brief was in answer to a decision handed down by the Attorney General to the Industrial Commissioner, dated May 26, 1936, and in reply to a question submitted by the Industrial Commissioner as to whether compensation x-ray laboratories should submit bills for x-ray services or whether the physicians who were in charge of the laboratories should personally submit the bills for such services. In this opinion the Attorney General pointed to Section 13-b, subdivision 3 of Chapter 930 of the Laws of 1935

STATE OF NEW YORK
DEPARTMENT OF LAW
NEW YORK CITY

May 26th, 1936

Hon Elmer F. Andrews,
Industrial Commissioner,
80 Centre Street
New York, N. Y.

Dear Commissioner Andrews
Replying to your letter of May 11, 1936, wherein you request an opinion as to whether compensation x-ray laboratories

the injured employee the names of enrolled physicians who he believes to be competent to treat him.

This permission to recommend, however, is granted only where the employee has waived his right or is unable to exercise it. It is not given to the employer as a right in contravention to the employee's right to free choice of physician.

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At this hearing the insurance carriers stated that they were unable to present definite figures and accurate statistics at this time. They further stated that they would not be able to submit figures for at least another year.

It was merely the impression of certain insurance carriers that general medical costs had risen. How much of this supposed rise could be attributed to the actual cost of medical care they were not able to ascertain at this time.

Your Committee was represented at this meeting and submitted the belief that under the new law the quality of medical care had increased materially, and that it was their opinion that certain representatives of insurance carriers were of the impression that the cost of medical care had not risen. Your Committee expressed

the opinion that with the control of many abuses which existed under the old law and which are rapidly disappearing now, and as the result of the arbitration of disputed medical bills, the cost of medical care will not materially increase, and that there might even be a decline in the costs to the employers of the State. The fact that self-insurers have not availed themselves of arbitration up to the present time is significant in this regard.

The right of a licensed physician to accept and treat Workmen's Compensation cases without being qualified by the medical societies and authorized by the Industrial Commissioner was tested in the courts during the year. The plaintiff in the case was a licensed but unauthorized physician who treated an injured employee entitled to medical care under the Workmen's Compensation Law and with the consent of the employer. The physician then sued the employer in the Court to enforce payment of his bill. He did not allege in his complaint, however, that he had been duly authorized to render medical care under the Workmen's Compensation Act as amended in 1935.

The question of Law came up for decision before Justice Bernard Shientag in the Supreme Court of New York County. A very sweeping and significant decision was handed down by the learned justice and was published in the *Law Journal*, June 4, 1936.

The Justice held that

1 The Legislature has power to abrogate in whole or in part the common-law rights of physicians who treat Workmen's Compensation cases, and that a physician's exclusive remedy to recover payment for treating compensation cases shall be under the Workmen's Compensation Law and not in the Courts, that the Legislature may by reasonable provisions restrict and limit the contractual relations between physicians on the one hand and employers or injured employees on the other, and that reasonable restrictions may be made applicable not alone to the awards to physicians under the Workmen's Compensation Law but to actions for services in the courts as well.

2 The requirement that only physicians who are specially authorized by the Industrial Commissioner for that purpose may treat injured employees in accordance with the provisions of the Workmen's Compensation Law is a reasonable one, calculated to accomplish the humane objects of that

From all of the foregoing, it is our opinion that a duly authorized compensation x-ray laboratory may submit bills for x-ray services rendered by it.

Yours very truly,
JOHN J. BENNETT, JR.
Attorney General

By JOSEPH A. McLAUGHLIN (Signed)
Assistant Attorney General

The Attorney General stated that from this it appeared that a *bureau* engaged in diagnosis or x-ray treatment need not be owned by a physician, but must be operated or supervised by a duly qualified physician and such laboratory was subject to the provisions of Section 13-c of this chapter, which according to the Attorney General definitely makes lawful the licensing of such laboratories and bureaus and prescribes the regulations to which they become subject.

The Attorney General was of the opinion that the Legislative intent was to permit x-ray laboratories to perform their services without the necessity of functioning through the physician except as prescribed by the law, namely, that the laboratory must be operated or supervised by a duly authorized qualified physician. The opinion then states that if the physician is a mere employee it does not seem reasonable that he should render the bill for x-ray services. Up to the present time this matter has not been considered *de novo* by the Attorney General as was requested in our brief of June 10.

It is the opinion of your Committee that licensed lay or corporate-owned laboratories would be not only a violation of the Education Law of this State, but would also be contrary to the spirit of the new legislation which went into effect on July 1, 1935, and which was intended to eliminate the evils and abuses which had crept into compensation practice largely because of the participation of lay persons and corporate bodies in the practice of medicine. Up to the present time no lay owned or corporate owned x-ray laboratory has been recommended for licensing by County Society Workmen's Compensation Boards. This matter was brought to the attention of the Executive Committee some time ago and the views of your Committee were upheld. Permission was given to persist in this attitude, and if necessary to defend

any action brought to compel the Board to license such lay-owned laboratories which engage in the diagnosis and/or treatment of Workmen's Compensation cases and, if such license is granted by the Industrial Commissioner after the refusal of the County Board to act to take such steps in the Court to bring about its nullification.

It is strongly urged that the State Society go on record as opposing the participation of lay persons directly or indirectly in the practice of medicine under the Workmen's Compensation Law and as defining the practice of roentgenology as a branch of medical practice under the Education Law.

Your Committee took part in discussions for the adoption of a hospital fee schedule until it was ruled by the Attorney General, December 14, 1936, that under the amended Act the Industrial Commissioner has no authority to fix a minimum fee schedule for hospital care. Recently the New York Hospital Conference and the Brooklyn Hospital Council have taken exception to the action of the Industrial Commissioner in formulating Rule 22 of the revised Rules and Regulations governing Chapters 258 and 930 of the Workmen's Compensation Law, promulgated by the Commissioner December 1, 1936. This rule reads as follows:

Hospitals shall render bills for board and room accommodations, medical and surgical supplies, nursing facilities and routine laboratory services. Bills for all services rendered by physicians in hospitals, including physiotherapy, x-ray, pathology, anesthesia, medical and surgical care, etc., shall be made out separately and paid directly to the doctor rendering the service. Proper reimbursement by the physician to the hospital for materials and the use of facilities will not be in violation of Section 13-d-2 (e).

The hospitals in the Metropolitan area through the above Associations submitted a brief to the Attorney General protesting this rule and the interpretation of Section 13-f by the Industrial Commissioner.

Your Committee in turn presented its views contending that roentgenology, anesthesia, pathology, and physical therapy, are forms of medical practice and as such fees for these services should be

should submit bills for x-ray services or whether the physicians who are in charge of the taking and reading of x-ray plates should personally submit the bills for such services, we submit the following discussion of the law appertaining to the problem

Section 13-b, subdivision 3, Chapter 930 of the Laws of 1935, reads as follows

"Laboratories and bureaus engaged in x-ray diagnosis or treatment or in physiotherapy or other therapeutic procedures and which participate in the diagnosis or treatment of injured workmen under this chapter shall be operated or supervised by qualified physicians duly authorized under this chapter *and shall be subject to the provisions of section thirteen-c of this chapter* The person in charge of diagnostic clinical laboratories duly authorized under this chapter shall possess the qualifications established by the public health council for approval by the state commissioner of health or, in the city of New York, the qualifications approved by the board of health of said City and shall maintain the standards of work required for such approval"

From this section, it appears that a bureau engaged in x-ray diagnosis or treatment need not be owned by a physician, but must be operated or supervised by a duly authorized and qualified physician. Such a laboratory is subject to the provisions of Section 13-c of the aforesaid chapter.

The relevant portion of Section 13-c reads as follows

"S 13-c Licensing of compensation medical bureaus and laboratories * * * * The commissioner may, upon the recommendation of the medical society of each county or of a board as provided in section thirteen-b, authorize and license separate laboratories and bureaus engaged in x-ray diagnosis or treatment, in clinical diagnosis, or in physiotherapy or other therapeutic procedures, which participate in the diagnosis or treatment of injured workmen under this chapter. Application for such authorization shall be made on forms to be furnished by the commissioner and shall disclose in full the nature of the personnel and equipment of such bureaus. No such authorization shall be made in the absence of recommendation from the appropriate society or board. Each such bureau or laboratory which receives such authorization shall

(a) make reports on its personnel and equipment in such form and at such time as may be required by the commissioner, and

(b) be subject to inspection by the com-

missioner or the medical society of the county in which such bureau or laboratory is located, and

(c) pay to the commissioner a license fee of fifty dollars per annum for each office of such bureau or *ten dollars per annum for a separate laboratory*"

This section definitely makes lawful the licensing of such laboratories and bureaus engaged in x-ray diagnosis or treatment and prescribes the regulations to which the x-ray laboratory becomes subject. It also prescribes the license fee for such operation

The relevant portion of Section 13, subdivision a, reads as follows

* * * "*Nothing in this section shall be construed as preventing the employment of a duly authorized physician on a salary basis by an authorized compensation medical bureau or laboratory*"

From the aforequoted sections, it appears that it was the legislative intent to permit x-ray laboratories to perform their services without the necessity of functioning through a physician, except as prescribed by the law. The Laboratory must be operated or supervised by a duly authorized qualified physician, but the physician may be the employee of the laboratory.

If the physician is a mere employee, it does not seem reasonable that the employee should render the bill for x-ray services.

The proponents of the argument that physicians alone be permitted to render bills for x-ray services predicate their contention largely upon Section 13-f of Chapter 258, Laws of 1935. But it must be pointed out that the salient portion of Section 13-f reads as follows

"Payment of Medical Fees—Fees for medical services shall be payable only to a physician or other lawfully qualified person permitted by Section 13-b of this chapter to render medical care under this chapter, or to the agent or to the executor or administrator of the estate of such physician"

We read the words "payable only to a physician or other lawfully qualified person permitted by Section 13-b of this chapter to render medical care under this chapter" to contemplate the payment of fees to a lawfully qualified medical laboratory. Otherwise, there could be no explanation for the words "other lawfully qualified person permitted by Section 13-b" if physicians alone were intended by the words of this section. Paragraph 3 of Section 13-b makes specific reference to x-ray laboratories.

(2) Whenever his attendance at a hearing is required the physician of the injured employee shall be entitled to receive a fee from the employer, or carrier, in an amount to be fixed by the commissioner in addition to any fee payable under section one hundred twenty

The Committee held a number of conferences with representatives of the State Hospital Associations with the idea of clarifying certain provisions of the amended Act affecting both doctors and hospitals. After the formation of a joint committee combining representation from the State Society and the New York State Hospital Association, with Dr. Floyd S. Winslow as Chairman, many of the moot points were submitted to this joint committee on which your Committee was represented by two members. Meetings are now in progress.

It must be apparent to all that the Legislature has placed upon the organized medical profession a great responsibility under the amended Workmen's Compensation Law. It behooves the State Society and each local County Society to meet its obligations fully and faithfully in the highest interests of the people and to the end that the provisions of the new act may be carried out in so far as they devolve upon the profession with scrupulous fairness and in the spirit of the new legislation. That the confidence of the legislators will not be abused or its faith in our ability to succeed in carrying out even so difficult a medical administrative problem as the new law presents is augured by what we have accomplished up to the present and our plans for the future. Your Committee has been carefully observing administrative and medical practices under the new law. It has established important contacts with officials in the Department of Labor, with insurance carriers and their organizations, with representatives of employers organizations, and with representatives of Labor, and wherever possible has done its utmost to cooperate with these groups unselfishly and equitably.

Your Committee with the approval of the Society has recommended the appointment of a state-wide committee to study the Industrial Dermatoses and bring in a report with a view of setting up an adequate medical and administrative procedure in this difficult field. The Com-

mittee favors the setting up of a state wide committee on Rehabilitation to study and suggest methods of improving the medical and administrative procedure in this field. That your Committee may faithfully represent the interests of the whole profession in the State it has been recommended above that its number be increased to five.

Your Committee recommends that wherever possible each county society appoint, if it has not already done so, a special advisory qualifying committee to the Compensation Board, or to the Society whose function it shall be to set standards for qualification of physicians. Your Committee recommends that each county society keep its files of authorized physicians up to date and send to the office of this committee any changes in qualifications or any newly qualified names, and that the names of all bureaus approved or disapproved be sent to the office promptly. Your Committee strongly recommends that no change in principle or policy be inaugurated by any local society without conferring with this committee in advance. This is in the interest of uniformity and harmony. With the approval of the Executive Committee and the cooperation of the President a State Examining Committee has been appointed to assist the local county societies in qualifying roentgenologists under the Workmen's Compensation Law. Where any county society board is in doubt concerning the qualifications of a physician in accordance with the standards that have been approved for roentgenologists and submitted to each constituent society, the services of this special examining board may be enlisted by application to this committee. At stated intervals examinations will be conducted in the various parts of the State. Recently one such examination was held in the Metropolitan area for six applicants.

This Committee again recommends, as it did last year, an amendment to the Workmen's Compensation Law to give the Department of Labor authority to assess compensation and medical costs against a non-insured employer. It further recommends a provision in the law to fix a penalty for violations of the provisions of the amended law (Chapters 258 and 930 of the Law of 1935) applicable to all interested parties.

payable only to physicians regularly qualified under the law

The Attorney General's opinion is as follows

In yours of December 14th, you ask for my advice on S 14-f of Chapter 258, Laws of 1935, and the validity of Rule 22, adopted by you on the authority of said act.

Your Rule is not addressed to the situation of a payment already made to the doctor which presumably he had a right to receive but undertakes to regulate the hospital in the manner in which charges shall be made for services furnished by it and requires that bills for such service shall be made out separately and payable to the doctor who participated in the service without reference to the status of the physician as a staff doctor employed by the hospital under contract at a stated annual salary

After a careful consideration of the memorandum to the Industrial Commission, dated February 5, 1937, by Dr. Kaliski, the brief of Mr. Sol Ullman, Assistant Attorney General, the Report of the Leliman Committee headed by Dr. Pool, the Report of the Committee on medical and hospital problems to Governor Roosevelt (Howard Cullman, Chairman), the Research and conclusions of Justine Wise Tulin (109 pages) I am forced to the conclusion that there is no clear legislative intent to bar hospitals from charging for x-ray, physiotherapeutic and pathologic (laboratory) services

Where it is required that such services must be supervised by an authorized physician, where laboratories are allowed to be created for such purposes, where we know hospitals are equipped for such services and maintain staff salaried physicians to supervise and render those services, it would seem that a charge by a hospital need not segregate the service itself (materials, machine or room) from the salaried person's duties rendered in respect thereof. No such clear prohibition as is contended for can be read into the act.

The following confusion is created in the light of the construction contended for

1 The hospital may not render "medical services" under S 13-h, but its physicians may treat compensation cases under S 13-b(1 b)

2 "Medical Services" may not be rendered under S 13-h, but under S 13-b (1 c) and (3) x-ray, pathological and physiotherapeutic and laboratory services may be rendered

3 The hospital may charge for its "services" under S 13-g, but cannot collect because of S 13-f

4 Services of x-ray, physiotherapy, pathology, may be rendered (S 13-b-(1c), 13-b(3), and a physician must be maintained in connection therewith, yet the physician (paid on an annual

salary basis by the hospital) must be paid separately for such service

Neither the background nor the statutes support the arguments advanced. The legislature is now in session and if it is desired to enact any such stringent rule as that contended for, you should submit the matter to the legislature so that doubts will be resolved by its action.

In order that the intent of the law may be carried out your Committee recommends the submission to this Session of the Legislature a series of clarifying amendments, as follows

S 13-f Payment of medical fees (1) Fees for medical services shall be payable only to a physician or other lawfully qualified person permitted by Section 13-b of this chapter to render medical care under this chapter or to the executor or administrator of the estate of such physician. Medical services for the purposes of this chapter shall include medical, surgical, x-ray, physiotherapy, anesthesia, and pathological services. No physician rendering treatment to a compensation claimant shall collect or receive a fee from such claimant within this State but shall have recourse for payment of services rendered only to the employer under the provisions of this chapter. Hospitals shall not be entitled to receive the remuneration paid to physicians on their staff for medical, surgical, x-ray, physiotherapy, anesthesia, and pathological services

(1-a) A hospital may charge a physician in its employ, who renders x-ray, physiotherapy, anesthesia or pathological services under this chapter for the cost of materials and facilities. A schedule of such charges shall be filed with the Commissioner and shall be subject to correction by his order whenever there is evidence that such charge is not reasonably consistent with the true costs as established by the experience of specialists in the same or neighboring community. The schedule of charges shall be an adequate safeguard to the hospital for the actual costs of its materials and facilities but shall not operate as a division of the fee due the physician and convert such division to the revenue of the hospital

When a physician is on full time salary employment, a hospital may charge off against salary such net sums as accrue to the physician under the provisions of this section up to such ratio or proportion as the number of patients so treated or examined by such physician under the Workmen's Compensation Law bears to the total number of patients treated or examined by such physician under the terms of his contract

The increased attendance gave evidence of the lively interest of the profession in clinical medicine

At the Executive Session the following gentlemen were elected President, William C Buntin, M D , First-Vice-President, Theodore West, M D , Second

Vice-President Alexander N Selman, M D , Secretary, Isidore J Landsman, M D , Treasurer, Howard C Taylor, Jr , M D

Respectfully submitted,
TERRY M TOWNSEND, *President*

April 1, 1937

REPORT OF SECOND DISTRICT BRANCH

To the House of Delegates, Gentlemen

The activities of the Second District Branch for 1936 centered in the Thirtieth Annual Meeting which was held on November 19 at the Garden City Hotel, Garden City, Long Island. A group of exhibits and discussions were arranged, occupying the day from 10 A M until 5 P M. Six subjects were chosen, tuberculosis, diabetes, fractures, cancer, lead poisoning and diseases of the blood forming organs. For tuberculosis an extensive exhibit was arranged and a series of nine twenty-minute talks covering the entire subject were given. For fractures a series of five twenty-minute talks, treating the more common fractures together with an exhibit of x-ray pictures. In cancer a series of four talks, each lasting approximately one hour, illustrated by lantern slides and demonstrations. Lead poisoning, three talks, each one approximately one hour, together with an exhibit demonstrating the newer knowledge concerning this disease. Under diabetes and hematology there were three groups of four speakers, each representing different hospitals, covering the same subject in two hour periods successively. This afforded an opportunity for the individual physician to get three different viewpoints on the same subject, and with each of these extensive exhibits were used to illustrate the talks.

This program was unique and afforded an opportunity for a rapid postgraduate review of several important general subjects. It has demonstrated its value and with some improvements in the mechanical operation of the program it should be continued.

In the evening at the end of the banquet, Dr James R Reuling, Chairman of the World's Fair Committee of the Medical Society of the State of New York, and Vice-Chairman of the Committee Appointed to look after Medical Activities of the Fair, spoke on "The Doctor and the World's Fair." Dr Floyd S Winslow, President of the Medical Society of the State of New York spoke on "The Obligation of the Doctor." Approximately two hundred physicians attended the meeting during the day and many of them stayed for the whole day. During the business meeting which resulted in the election of Dr Irving Gray as President, Dr Albert E Payne as First Vice-President, Dr Louis H Bauer as Second Vice-President, and Dr Alec N Thomson as Secretary and Treasurer, a resolution was introduced and passed favoring the continuance of the District Branches of the Medical Society of the State of New York.

Respectfully submitted,
CARL BOETTIGER, *President*

April 1, 1937

REPORT OF THIRD DISTRICT BRANCH

To the House of Delegates, Gentlemen

The Third District Branch of the Medical Society of the State of New York held its annual meeting at the Ten Eyck hotel, Albany, September 22, 1936. About 150 members were present from the Counties of Albany, Columbia, Greene, Rensselaer, Schoharie, Sullivan, and Ulster, which comprise the Third District. The meeting was in charge of

Dr B W Gifford, president, Dr Augustus J Hambrook having resigned as president after his appointment as chairman of the Public Relations Committee of the Medical Society of the State of New York.

Dr Raymond F Kirchner, president of the Albany County Medical Society, gave a hearty address of welcome as the morning session opened. This was fol-

During the past year the Chairman of this Committee has addressed six District Branch meetings on the subject of Workmen's Compensation. He has addressed a number of county societies throughout the State and appeared before a number of medical societies in this and other states by invitation to discuss this subject. He also addressed groups of insurance representatives in various parts of the State. Numerous conferences were held with representatives of individual insurance companies, hospitals, local law enforcement agents and representatives of the Attorney General and the Solicitor General of the State. Eleven communications were published in the *STATE JOURNAL* which have been widely republished in County Society Bulletins.

Following is a financial statement of the Committee from March 1, 1936 to March 1, 1937

Rent	\$ 600 00
Salaries	705 30
Postage and telephone	145 21
Printing and stationery	194 05

Miscellaneous	24 00
Dinners	70 21
Railroad expenses	236 35
Drs. Kaliski and Elliott (for past services)	2,000 00
Director's salary	3,333 34
	<hr/>
	\$7,308 46

The Chairman wishes to express his sincere thanks to Dr. F. E. Elliott and Dr. B. Wallace Hamilton, members of the Committee, for their untiring help and support during the past year. Without their conscientious devotion the difficult task of the Committee could not have met with whatever success it has achieved. To the office staff, headed by Miss E. H. Wheeler, the Society owes a deep debt of gratitude for their unselfish and devoted efforts. To our counsel, Mr. L. J. Brosnan, the Committee offers sincere thanks and bespeaks the approbation of the Society.

Respectfully submitted

DAVID J. KALISKI, M.D.,
Chairman

April 1, 1937

REPORT OF FIRST DISTRICT BRANCH

To the House of Delegates, Gentlemen

The First District Branch of the Medical Society of the State of New York, comprising the Counties of Bronx, Dutchess, Putnam, New York, Orange, Richmond, Rockland, and Westchester, held its Thirtieth Annual Meeting at the Morrisania City Hospital on the 6th day of October, 1936.

The following program was presented

MORNING SESSION

"Operations for complete Prolapse of Uterus" Harry Aranow, M.D., F.A.C.S., and Staff

"General Surgery" George E. Milani, M.D., and Staff

"Urological Surgery," Terry M. Townsend, M.D., F.A.C.S., and Staff

"Current Pediatric Cases," Louis H. Barenberg, M.D.

"Unique Methods of Tonsillectomy" Clarence H. Smith, M.D., F.A.C.S., and Staff

"Pathological Demonstrations" William Aronson, M.D.

"Interesting Neuropsychiatric Cases" S. Philip Goodhart, M.D., and Staff

"Interesting Eye Cases" Thomas Hayes Curtin, M.D.

Luncheon

AFTERNOON SESSION

Introduction of Hon. S. S. Goldwater, M.D., Commissioner, Department of Hospitals, New York City, by Nathan B. Van Etten, M.D., F.A.C.P., President, Medical Board, Morrisania City Hospital

"State Society Problems" Floyd S. Winslow, M.D., F.A.C.S., President, Medical Society of the State of New York

"The Journal" Peter Irving, M.D., F.A.C.P., Secretary, Medical Society of the State of New York

"Compensation Medicine" David J. Kaliski, M.D., Director, Workmen's Compensation Bureau, Medical Society of the State of New York

"Neurosurgery" Sidney W. Gross, M.D.

"Demonstration of Unusual X-ray Films" Samuel F. Weitzner, M.D.

"Surgical Diabetes" Frederick W. Williams, M.D. and Thomas J. O'Kane, M.D., F.A.C.S.

"Radiation Therapy of Neoplastic Diseases" William Harris, M.D. and Samuel Richman, M.D.

"Cardiac Clinic" Edward P. Flood, M.D.

"Treatment of Fracture of Femur" William Klein, M.D., F.A.C.S.

"Grand Rounds and Demonstrations in Obstetrics" Harry Aranow, M.D., F.A.C.S.

There was a fair attendance considering the roughness of the weather

The forenoon was given over to clinical lectures on varieties of defects in the school Drs Greteman, York and Williams were the speakers Mr Robert Dineen, Attorney, of Syracuse gave a very instructive discussion concerning malpractice suits Dr Peter Irving and Dr Joseph Lawrence gave a resume on their activities in the State Society Syphilis Control, Maternal Welfare, and Pneumonia Control were covered in their topics

The Branch went on record by making a resolution to the Commissioner of Labor to have the same fee schedule in com-

pensation work as the Metropolitan area

In the afternoon session Dr Donald Guthrie of Sayre, Pa presented a paper on "Surgery in Peptic Ulcer" which was very thorough, and well-received by the members as it brought forth much discussion A paper on "Cardio-Vascular Syphilis" was given by Dr Edwin P Maynard This paper was also discussed at some length

The Branch has been in touch with its representatives and has communicated with them during the legislative session

Respectfully submitted,

MURRAY MACG GARDNER, *President*

April 1, 1937

REPORT OF SIXTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

The activities of the Sixth District Branch have been limited to two meetings The first meeting was a luncheon meeting of the Officers of the District and component County Societies, held at the Ithaca Hotel on May 28, 1936 The Executive Officer of the State Society, Dr Joseph Lawrence, was present at this meeting The main business of the meeting was a discussion of a tentative program for the Annual Meeting of the Sixth District Branch and the date set for September 17 Other matters of local interest to the District were discussed without any official action taken

The Thirtieth Annual Meeting of the Sixth District Branch held at Willard Straight Hall, Cornell University, Ithaca, September 17, consisted of a morning session followed by a luncheon and a second scientific session in the afternoon The scientific papers were presented in the Theatre of Willard Straight and the large Memorial Room was used for

demonstrations by the State Department of Health in connection with its Syphilis program, and a model demonstration of the physical plant of Biggs Memorial Hospital, recently opened at Ithaca

The meeting was attended by Floyd S Winslow, President of the State Society, David J Kaliski, Chairman of the Workmen's Compensation Committee and Peter Irving, Secretary of the State Society All three of the Officers of the Society presented short addresses during the Session The afternoon session was terminated by a paper on 'Diseases of the Lungs' by Chevalier Jackson, of Philadelphia

Several interesting exhibits of work being done by various Faculty Members of the Department of Physics at Cornell were made available and largely attended by those at the meeting

Respectfully submitted,

LEO P LARKIN, *President*

April 1, 1937

REPORT OF SEVENTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

In accordance with the Constitution and By-Laws, herein is submitted the 30th annual report of the Seventh District Branch

On September 24, 1936, for the first time since organization, the Seventh District Branch convened in annual meeting in Seneca County The place of meeting

was in Hadley Hall, Willard State Hospital on the east shore of Seneca Lake

The occasion was graced by the presence of the following officers of the State Society President, Dr Floyd S Winslow, President-Elect, Dr Charles H Goodrich, Secretary, Dr Peter Irving, Executive Officer, Dr Joseph S Lawrence Chairman of the Economics Com-

lowed by the following instructive scientific program a paper on "The Administration of the Workmen's Compensation Law," by Dr David J Kaliska, chairman of the committee on Workmen's Compensation, "Silicosis Diagnosis and Significance," by Dr D M Brumfiel, an address by Dr Edward S Godfrey Jr, Commissioner of the State Department of Health, a paper, "Fundamentals in the Treatment of Fractures," by Dr Herbert M Bergamini, "A Review of the Nasal Accessory Sinuses," by Dr John J Rainey Dr Floyd S Winslow, president of the Medical Society of the State of New York was present and spoke upon various timely subjects of interest to all State Societies Dr Peter Irving, Secretary of the Medical Society of the State of New York, also spoke on subjects in relation to the State Dr

Augustus Hambrook, chairman of the Committee on Public Relations, gave a brief talk on that subject

After luncheon at the Ten Eyck hotel, the following officers were elected President, Dr B W Gifford, 1st Vice-President, Dr L B Honeyford, 2nd Vice-President, Dr A M Dickinson, Secretary, Dr William M Rapp, Treasurer, Dr Ernest E Billings

I wish to thank all the officers, committees, and members of the Third District Branch for their attendance and for all their efforts to make this meeting a success I would especially thank the speakers at this meeting, and the Albany County Medical Society for their hospitality

Respectfully submitted,

BERTRAN W GIFFORD, *President*

April 1, 1937

REPORT OF FOURTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

Fine weather and a good program, together with a most excellent host—the Clinton County Society—made the Thirtieth meeting of the Fourth District Branch at Plattsburg, October 2-3, 1936, very successful

Our District is large in area, extending roughly from the Mohawk River on the south to the Canadian Border and from the St Lawrence River on the west to Lake Champlain Seventy men attended

A well-balanced program had been arranged and this is the crux of every successful meeting Unless members derive benefit from their efforts, attendance will diminish With such men as Drs James B Collip, Montreal, Lyman Allen, University Vermont Medical College, Edward K Cravener, Schenectady, Lewis M Hurxthal, Boston, Arthur J Vorwald, Saranac Lake, and George Beilby, Albany, presenting scholarly

papers, interesting discussions occurred throughout

Friday evening, October 2, the banquet was held at the Cumberland House where we were the guests of the Clinton County Society

State President, Floyd S Winslow, gave an interesting talk on "Crime Detection," illustrated by moving pictures State Secretary, Peter Irving, and Dr Joseph S Lawrence made pertinent remarks The high point was reminiscences by Dr John B Wheeler, Harvard '78, author, surgeon, and teacher

With the incoming officers we shall look forward to greater things and with Dr Carl R Comstock as President-Elect, we can feel assured

My thanks and appreciation to the Plattsburg men and to the essayists for their generous assistance

Respectfully submitted,

JOHN P J CUMMINS, *President*

April 1, 1937

REPORT OF FIFTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

The Fifth District Branch held its regular annual meeting on the first of October, 1936 at the Rome State School The

programs were held during the morning and afternoon sessions divided by an excellent dinner served by the Superintendent

Eighth District Branch was held at the Buffalo City Hospital, October 15, 1936. We had a very complete scientific session. The first speakers of the day were Dr. Allen Jones and Dr. Abel Levitt of Buffalo who gave a very instructive clinic on "Congestive Heart Failure and its Management." Following this Dr. Edward G. Winkler of Buffalo gave his unique motion picture film on different types of forceps and their application with a brief discussion of Maternal Mortality in Erie County by Dr. F. C. Goldsborough of Buffalo.

Luncheon was served at the hospital, cafeteria style.

Immediately following lunch we were honored with the presence of State President Dr. Floyd Winslow who gave us a brief talk on the duties of a physician. We were also honored by the presence of Dr. Peter Irving, State Secretary and Dr. D. J. Kaliski, Chairman of the Compensation Department for the State Medical Society. Each gave us a talk on their own field in the State Medical Society.

The afternoon session began promptly at two o'clock with a paper on "Silicosis,

Clinical Manifestations" by Dr. J. H. Donnelly and Dr. D. R. McKay with a complete roentgenological study by Dr. Clifford Orr. The last clinic in the afternoon was a fracture clinic conducted by Dr. Robert P. Dobbie and associates at the Buffalo City Hospital. This clinic brought out many new things, especially in the way of first aid treatment of fractures and their follow-up by repeated x-ray studies.

The meeting was well attended and the hospitality shown us at the City Hospital was most gratifying. The detail work done by the hospital department in scientific exhibits, pathology, bacteriology, roentgenology, etc., was most excellent.

The president of the district has been fairly active during the past year attending the State Executive Committee meeting each month, the State Council and Board of Censors. He has also reported to his district and county some of the newer things developed during the past year in state medical organization.

Respectfully submitted,

H. W. INGHAM, *President*

April 1, 1937

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muttee, Dr Frederic E Elliott, and Director of the Bureau of Workmen's Compensation, Dr David J Kaliski were also in attendance as speakers on the program

Despite the fact that the place of meeting was in the extreme southeastern part of the District and that the weather was very inclement more than one hundred were present and each component County Society was ably represented

The morning session was opened shortly after ten o'clock with Dr Winslow speaking on "Progress of the Society" Dr Kaliski followed on the subject "Problems and Progress of the Compensation Bureau" Dr Elliott then spoke on "Current Medical Economics" Dr Irving narrated in a very interesting manner the doings at "The State Society Office" Dr Arthur Krida, Professor of Orthopedic Surgery, New York University gave an erudite address on "Surgery of the Knee Joint," illustrating his talk by means of colored moving pictures, which depicted some original work Luncheon was served in Elliott Hall

During the afternoon Dr Edward G Winkler of Buffalo spoke on the subject "Miscellaneous Procedures in Gynecology," which was also illustrated by moving pictures, Dr W J Merle Scott of the University of Rochester talked on and illustrated by means of slides "The Differentiation of Benign and Malignant Lesions in the Gastrointestinal Tract"

It is a pleasure to make special mention of the manner in which the members and guests received what the State Officers had to present Each one came well-prepared and presented his material in a concise and brief address

Dr Harry J Worthing, Superintendent of Willard State Hospital, deserves much praise for the work that he and his subordinates did in arranging the theatre for the meeting and for the very fine luncheon that was served at bare cost to the Society

During the year your President was invited to and attended the annual meetings of Cayuga County and Broome County components, both of which exhibited a splendid degree of organization and an enthusiasm quite refreshing Noticeable to an unusual extent was the reposition of authority in young, earnest, and fervent leadership—an augur of enduring ideals An invitation received from Yates County was accepted but at the last minute had to be cancelled with regret As a member of the Executive Committee of the State Society your President has attended all monthly meetings except that held in January, from which he was excused by reason of pressing medical practice, he attended also the meeting of the Council in December

Throughout the District there has been observed unmistakable evidence of an awakened and eager-to-serve attitude on the part of the profession in all matters where cooperation in behalf of the State Society has been sought. The willingness and ardor displayed by the Chairman of Standing Committees in responding to invitations for the enlightenment of the physicians of this District cannot be passed without the recognition of comment, particularly are we indebted to Dr Frederic E Elliott and Dr David J Kaliski For aid and counsel in many matters and on numerous occasions the undersigned is deeply grateful to the Executive Officer, Dr Joseph S Lawrence and to the Secretary of the State Society, Dr Peter Irving

Several of the County Societies in the District have availed themselves of the postgraduate instruction afforded by the State Society Many favorable comments have been heard as respects the cooperation and consideration shown by Dr Farmer in arranging these courses

Respectfully submitted,

THOS W MALONEY, President

April 1, 1937

REPORT OF EIGHTH DISTRICT BRANCH

To the House of Delegates, Gentlemen

The annual meeting of the officers of the Eighth District Branch consisting of the county presidents, district officers and Dr Joseph Lawrence from Albany, met

at the Hotel Statler, Buffalo, in May 1936 After a very interesting discussion of various scientific subjects our program was formulated for our fall meeting

The Thirty-first Annual Meeting of the

AMERICAN MEDICINE

EXPERT TESTIMONY OUT OF COURT

The American Foundation Publishes Report of its Medical Inquiry

The American Foundation made public on April 4, in a comprehensive report, the views of leading doctors and surgeons throughout the country on the present status of American medicine and on the problem of making "adequate" medical care available to the large part of the population that now fails to get it.

The report—which appears under the title, "American Medicine Expert Testimony Out of Court"—summarizes the results of an inquiry to medical men begun by The American Foundation approximately eighteen months ago. The doctors—chiefly those that have been in practice twenty years or more—were asked whether they feel that radical change in the present system of medical care is indicated, and, if so, in what directions. There was no questionnaire, the doctors were invited to comment freely upon all relevant points, and they did.

The report makes no recommendations, but in quotations from thousands of singularly sincere and spontaneous statements it analyzes profoundly and without reserve the *whole* structure of American medicine, presenting the whole picture—including, as one doctor puts it, the back of the house as well as the front.

Wide Interest for Laymen

Many of the questions raised have immediate interest for the layman. The questions are rather discussed than answered. Or rather for each question there are various answers. With the alternatives before him the reader can weigh and choose.

While the scope of the report is far too great to be indicated briefly, the following indicate part of the field.

What is "adequate" medical care?

Is the cost of it the only reason why it is not generally available?

How much modern scientific medical care of high grade exists at all?

If it were "available" now to all, would a large part of the population still choose quacks, cults, and patent medicines?

How far is government responsible for the health of the individual?

What part should government have in promoting public health and providing medical service?

Who should pay for the medical care of the indigent sick?

Is the old line of demarcation between preventive and curative medicine any longer practicable or desirable?

Is improving medical education and the personnel of the medical profession the first step in improving the organization and distribution of medical care?

Is there too much specialization?

Can an individual doctor really furnish scientific medical care alone or are organized laboratory and consultative assistance an absolute necessity?

In the medicine of the future will the practitioner function as an individual or as a member of a group?

What is the present status of the family doctor—is he "passing", or is a new version of him just coming into being?

Is the "doctor patient relation" an obsolete sentimentality or has it a practical value in modern scientific medicine?

Is there too much surgery?

How can self nominated specialists and ill qualified surgeons be controlled?

Now that the age of philanthropy is passing, how are hospitals to be supported?

Is insurance—three cents a day—or direct use of tax funds the answer?

Should the United States have a ministry of health and set up a Federal Department of Health in the President's Cabinet?

Which, if any, of the following is the answer to present problems: the status quo? compulsory insurance? various forms of voluntary insurance? thoroughgoing state medicine? evolutionary increase in governmental authority and functioning, integrated with private practice?

Sponsors of the Report

"American Medicine" is the first public report of The American Foundation Studies in Government since the Foundation entered the domestic field. Its work for the period from 1924 to 1935, was in the field of international law and international relations,

MEDICAL SOCIETY OF THE STATE OF NEW YORK

ANNUAL MEETING, ROCHESTER, MAY 24, 25, 26, 27, 1937

All meetings will be by Eastern Standard Time

House of Delegates

The regular Annual Meeting of the House of Delegates of the Medical Society of the State of New York will be called to order at 10 00 A M on Monday, May 24, 1937, in the Chamber of Commerce

SAMUEL J KOPETZKY, *Speaker*

PETER IRVING, *Secretary*

Annual Meeting

The Annual Meeting of the Medical Society of the State of New York will be held on Tuesday, May 25, 1937, at 7 00 P M, in the Chamber of Commerce

FLOYD S WINSLOW, *President*

PETER IRVING, *Secretary*

Registration

Registration will be held in the Chamber of Commerce for Delegates on Monday morning, May 24, from 9 00 o'clock, for Members on Monday, Tuesday and Wednesday, May 24, 25, 26 from 9 00 A M to 6 00 P M

Exhibits

Scientific and Technical Exhibits will be located in the Chamber of Commerce

Scientific Sessions

General Sessions on Tuesday and Wednesday afternoons Section meetings on Tuesday and Wednesday mornings will be held in the Chamber of Commerce

Day of Entertainment

Thursday Golf—At the Oak Hill Country Club, where the Lilly Trophy as well as many other individual prizes will be available in competitive matches

The University of Rochester Medical School as well as other Rochester Hospitals will welcome visitors to their research laboratories

131st Annual Meeting

Chamber of Commerce—Tuesday, May 25, 7 00 P M

Calling the Society to order by the President, Floyd S Winslow, M D

Reading of the minutes of the 130th Annual Meeting by the Secretary, Peter Irving, M D

The Annual Banquet

The Annual Banquet will be held in Banquet Hall of the Chamber of Commerce on Tuesday, May 25, at 7 00 P M The Guest Speakers will be Dr Wingate Todd of Western Reserve University, Dr Gordon J Laing, formerly professor of English and Classics at the University of Chicago, and Carl W Ackerman, Dean of the Graduate School of Journalism of Columbia University

Requests for tickets and reservations for tables should be sent to James M Flynn, M D, Chairman, Banquet Committee, 277 Alexander Street, Rochester, New York Tickets will be \$5 00

Delegates' Dinner

Dinner for the Delegates will be served in the Chamber of Commerce on Monday following the adjournment of the afternoon session of the House of Delegates Tickets can be procured from the Secretary of the Medical Society of the State of New York, Peter Irving, M D, 2 East 103rd Street, New York City Tickets will be \$1 50

Public Meeting, Wednesday Evening —May 26

Eastman Theatre—"The Relation of Photography and Motion Pictures to the Science and Practice of Medicine"

Entertainments for Ladies

Monday evening, May 24—Dinner, Hotel Seneca for Woman's Auxiliary and all doctors' wives

Tuesday morning, May 25—Hobby show

Tuesday, May 25, 1 P M—Lunch at Oak Hill Country Club, followed by drive around the city

Wednesday morning, May 26, 10 A M—Trip through Eastman Kodak Co plants

Committee that reviewed an early proof include

James Alexander Miller, New York City, president, New York Academy of Medicine, former president (1936), American College of Physicians

I am astonished at the wealth of material and the masterly fashion in which it has been handled. Each chapter represents a mine of information.

Esmond Long, Philadelphia, president, National Tuberculosis Association

A monumental contribution to this difficult subject. There was never anything like it.

It is well balanced and representative. It was not "packed"—the criticism made of so much effort of this character. In the long run—when recommendations for action are made—those who decide what is best will find an abundance of sound opinion as a basis for action.

Hugh Cabot, surgeon at the Mayo Clinic, former president, Association of American Medical Colleges

A magnificent piece of work. Not only is there an immense amount of "opinion testimony," which is the legal phrase for expert testimony, but the material inserted as introductory and complementary to the expressed opinions shows a very profound knowledge of a very complicated and broad field.

Louis Casamajor, professor of neurology, College of Physicians and Surgeons of Columbia University, member, American Board of Psychiatry and Neurology

I have never seen anything like it before. Not only does it give a clear cut cross section of American opinion on the organization of medical care but it is an intensely human document of opinion on many of the most important phases of modern economic and social life.

The editing is superb and the report, I feel sure, will serve for years as a source book for much social research of all sorts. I expect to see it extensively quoted for many years to come.

J. Rosslyn Earp, director, Bureau of Public Health of New Mexico

An extremely important contribution to the science of government which will have influence far beyond the immediate problem of medical care with which the report deals.

Rapid Review of the Contents of "American Medicine"

The report falls roughly into two divisions, as follows:

The first seven sections describe present trends in medical practice and in medical education. They analyze without reserve what is wrong and what is right with American medicine today.

The last four sections discuss various proposals—social and economic as well as medical—for "distributing" medical care and lowering its cost, and for organizing medical care and public health services.

In other words, in the first (and the larger) part of the report the doctors discuss chiefly medicine itself. In the latter part they venture into the field of social and economic theory. The much greater space and emphasis given to the discussion of medicine itself is not without significance. Medical scientists do not see any possibility of separating the social and economic aspects of medical care from the quality of medical care itself, as a dominant and controlling factor in all planning.

A swift review, by sections, follows.

I

Is Adequate Medical Care Now Generally Available?

Since there is no general agreement as to what is "adequate" medical care and what is meant by "available," many agree that there is no categorical answer to this question. But if medical care is interpreted to mean the kind of care needed to enable citizens to maintain "positive" health, preventing incipient illness from progressing to serious consequences, as well as doing all that can be done to restore the sick individual to health, the weight of opinion is certainly that adequate medical care is not available. Even if adequate medical care is less ambitiously defined, this section contains a good deal of evidence in the form not of statistics but of direct picture (by men on the scene) to justify the premise that a large part of the population does not receive adequate medical care (a) because it costs too much, especially hospital service and the laboratory aids to diagnosis, (b) because it is too far away—as in the vast agricultural areas far removed from medical centres and without either hospitals or practitioners (c) because the public generally does not understand and is not asking for modern scientific medical care, much of the population definitely preferring quacks, cultists and patent medicines, and, finally and most important, (d) because in the

and its specific interest in the judicial settlement of international disputes

The Governing Committee for the Foundation's studies consists of Judge Curtis Bok, chairman, John G. Winant, former chairman of the Social Security Board, Mrs. Ogden Reid of the New York Herald Tribune, Roscoe Pound, former dean of the Harvard Law School, Thomas Lamont, Colonel Hugh L. Cooper, consulting engineer, Robert A. Millikan, physicist, James D. Mooney, president of General Motors Export Company, William Scarlett, Protestant Episcopal Bishop of Missouri, Mrs. Frank A. Vanderlip, president of the board of trustees of the New York Infirmary for Women and Children, Elizabeth F. Read, director of research, Truman G. Schnabel, associate professor of medicine in the University of Pennsylvania, and Esther Everett Lape, the member in charge of the Foundation's work, and editor of the present report. Elihu Root was a member of the Committee and for fourteen years its active advisor.

Judge Curtis Bok, in his foreword to the present report, explains that all the Foundation's studies are motivated by an interest in investigating the manner and the degree in which government may wisely serve its citizens within the limits of the parliamentary system—"if these are limits." In outlining the Foundation's characteristic technic in research, Judge Bok says:

We think that researches into the field of government are really important only in the degree in which they are accompanied by systematic and continuous education of all of us.

Our procedure is to present problems to competent groups and then to define the problems comprehensively by assembling all the factors brought forward in the free discussion that follows. We do evaluate the ideas, but under stern challenge from our collaborators.

The effect of this technic is to broaden the base of discussion, remove it from the narrowness of personal conclusion and emotional preference, take it out of the circumscribed field of superficial controversy, of argument by slogans and catch words, and make it possible to arrive at that comprehensive definition of any given situation that should certainly precede attempts to revise it, if any.

The technic noted here is carried out in the present medical report.

In the introduction to the report Dr. Truman G. Schnabel, the medical member of the directing committee, sets forth that

As in the case of other studies of the American Foundation, the study of the relation of government to health was begun with no assumption either that government should or that it should not play a larger part than it now plays.

The report, he points out, is intended to illumine the situation by taking all the pertinent factors into account.

There are more than one or two possible ways of revising the present organization of medical care. It seems axiomatic that no method of revision should be adopted until alternative methods have been weighed. We have wanted to etch in the present picture fully.

In sending our inquiry to doctors in the first instance there was no assumption that doctors alone could solve the problem. Social scientists, economists, government administrators have certainly a contribution to make. But it seemed to us that the group best able to define the problem in the first instance is the qualified medical men of the country. They should have a better idea of what constitutes adequate medical care than any economist or any government administrator. The very nature of their work, moreover, puts them in touch with conditions that are social and economic as well as medical and scientific. The objective of the Foundation's inquiry was not to poll the medical profession upon anything whatever, but rather to assemble ideas. *The intent and purpose of this report is to illumine and not to prove.*

Contributors to the Report

The doctors and surgeons that sent statements (the full list forms an appendix of the report) represent every state, all divisions of medicine, and all types of medical experience. The general practitioner in rural districts has a voice, the specialist in every field, the professor in the teaching hospital, the dean of the medical school, the research director and laboratory worker, the partner in the group clinic, the hospital administrator, the officer of the medical society, the director of public health work.

Medical Sponsors of the Report

A group of 134 medical men associated in a Medical Advisory Committee joins with the Foundation in presenting the report, commending it to the study of medical men and organizations throughout the country—as a comprehensive and fair summary of the views of their colleagues.

Comments made by the members of the

done about the illness, but much to be done about the situation it creates, and this principle should not be lost in seeking an adjustment of medical care

9 *Evolution versus revolution* in the reorganization of medical care While certain groups advocate sharp and complete change in the present reorganization of medical care, the view seems fairly general that even thoroughgoing change (which many believe is in order) will best be worked out by evolutionary process

10 *The quality of medical care must be the determinant in all planning* The physicians quoted in this section largely stress the point that no program of reform will succeed that is based wholly on economic considerations. They feel that social economists in the past, in dealing with the subject of medical care, have perhaps been more concerned with the cost and distribution of medical service than with the quality and character of the care itself. Medical care is neither a commodity nor a constant, and any distributive schemes that so assume are destined to fail. Very generally the view is expressed that the best service that can be rendered to those in need of medical care is first of all to improve the quality of medical care and the personnel of the profession. However the problem may be defined, it cannot be defined as making mediocre medical care available to a greater number of people.

Better medicine, say the doctors, is more important than better distribution and lower costs

III

Medical Education

Surprise has been expressed at the tremendous emphasis that falls on medical education in this report. A number of doctors, however, wrote that so long as, in their judgment so much remains to be done by way of improving medical care and the personnel of the medical profession, they consider discussion of costs and distribution only superficial. Leading educators and many medical men outside the teaching institutions express the view, indeed, that medical education is really *the key* to the solution of the problem of better medical care for more people.

The notable improvement in medical education during the past twenty-five years is duly recognized but the point is made that standards should be further raised, and, many feel, substandard schools closed by law

Since the quality of the medical man himself is, many insist, the determining factor in the quality of medical care, ways and means must be found for getting the best men to enter medicine—and for rejecting men not really qualified in all ways for the exacting requirements of a profession that is both a scientific calling and a public service. The personnel of the profession will not be what it should be so long as some medical schools accept students of doubtful qualification because their tuition fees are needed

In discussing what kind of training makes the best doctor, there is lively discussion of whether the emphasis in pre-medical training should be on the humanities or on science, some take the line that the pre-medical course should not have any stated content, and some believe its character and emphasis should vary according to the type of the individual and the character of his earlier education

As to the medical course itself, a question of major interest is whether the present tradition in medical education tends to over-stress laboratory technique and thus to produce the "super-scientist" rather than the clinician. Does medical education tend to neglect the training of the general practitioner? Some of those that discuss this question feel that while the old type of family doctor may be passing, a new and differently trained general practitioner will be the key man in the medicine of the future, and that the medical schools will have to take this into account

In the discussion of the medical curriculum there is a good deal of reference to the need of better training in obstetrics, which is so often the core of general practice, the situation in obstetrical practice and training, taking the country as a whole, is regarded as far from satisfactory

There is somewhat extended discussion, *pro* and *con*, on the need of giving psychiatry a much larger place in the curriculum, and an animated difference of opinion as to whether more psychiatry in the medical course would or would not make the doctor able to deal more satisfactorily with the human entity rather than with a disease

Whether the best teaching in medical schools is done by full time teachers or by "famous specialists" in practice also strikes fire. There is some sincere reflection on the type of teaching that habitually stresses

medical care of the present "the best is not yet good enough," to cite one of many spokesmen

The reasons why medical care is not yet good enough are many but these are the reasons most frequently brought forward by the physicians (a) there is a lag of years in applying new medical knowledge, (b) present medical training is not yet uniformly good, (c) present licensing is too broad, (d) too many graduates do not or cannot *keep up* their competence, (e) medical imagination still does not sufficiently perceive that prevention rather than cure is the real and ultimate goal of medical science, as many competent leaders of medical science in this discussion declare it to be

II

Views from Medical Men on the General Principles and Considerations Which, They Believe, Should Underlie the Organization of Medical Care

The problem of providing adequate medical care, as described in the preceding section, is obviously very complex, and there is no single simple solution for it. This correspondence is therefore analyzed in order to assemble the general principles and considerations which, in the view of these medical writers, should underlie the organization of medical care.

The views presented justify emphasis on ten outstanding principles

1 The problem of medical care is bound up with the social and economic problem as a whole and can be accurately analyzed only in this connection. Medicine, in the view of many students that express themselves in this chapter, must mesh with the gears of general society and of economics

A number of those that lack adequate medical care, it is suggested, lack also adequate *anything*, the real solution would be a living wage for everybody employable

Medical care, it is submitted by many, consists of many things beside medical advice and medicine. The achievement of public health involves factors besides medical science, the attack must be made upon a broader front.

There is the view that the depression has caused the present crisis (as to medical care) and that it will pass with the depression, and there is the contrary view that the depression merely revealed permanent defects hidden from the general view in more prosperous times

2 It is necessary to define the objective of medical science and practice—is it merely the care of the sick in illness or the promotion of "positive" health for the whole population?

3 Who is responsible for the health of the individual? It is necessary to define the extent to which, in a modern industrial society, with unemployment and lack of a living wage as permanent hazards, the individual can be held responsible for his own health

4 The public conception of health is a controlling factor "Adequate" medical care assumes a public that understands it, wants it, and is capable of receiving it. The present extent of quackery and the present wide use of nostrums emphasize the fact that a better educated public is a condition precedent to any nationwide plan for making adequate medical care generally available

5 and 6 The parties in interest are the medical profession, the public and the government and all three must "search together" if the answer to the problem of supplying adequate medical care to the whole population is to be found. The degree to which government has responsibility must certainly be predetermined

7 There is wide agreement on the soundness of the principle that the individual should pay (in some manner) in accordance with his capacity to pay, and that there is need for establishing indigence (by just and generous means and with no implication of delinquency) and of determining degrees of capacity to pay

A number express the view that there is abuse at present of facilities intended for the indigent and the "medically indigent" (those that generally pay their way but have no margin at all for medical care) and that this abuse raises costs for the middle class

8 There is animated discussion as to whether the doctor-patient relation and the free choice of physician are merely sentimental smoke screens or whether they do denote an essential principle in medical therapy. A general view is expressed that so far as they are real they can certainly be defined. It is admitted that the "art of medicine" has frequently been exploited at the expense of the science and that the doctor-patient relation ought certainly not to be made to serve as a substitute for diagnosis, but there is also the view that after the doctor-patient relation has been stripped of purely sentimental values genuine therapeutic values remain

While some writers refer to the doctor-patient relation and free choice of physician as "overhanded pieces," there are a number of expressions to indicate that medical service should go beyond the disease which has caught the patient and include that patient who has "caught" the disease. There is often little to be

On the abstract question of the value of the consultative principle in the practice of medicine there is little disagreement. But there is a good deal of disagreement as to whether the consultative principle can be incorporated and whether, if it can, group practice furnishes the incorporation.

The point is made that some of the groups now in existence represent the "incorporation" of one man's capacity or ambition rather than an attempt to base medical practice on the consultative principle. It is suggested that group clinics do not furnish the only means of applying the consultative principle, that every good doctor calls in a consultant when a consultant is needed, and that every hospital staff is an important form of group practice.

A contrary view is that the average practitioner does *not* consult except in unusual cases, or when the patient or the family request it, that if he did ask for consultation as often as it would be advantageous, the patient and family would often tend to regard his desire to consult as an admission of his own incompetence, and that these and other facts point to the need of consultation *as a system*, i.e., group practice.

There are varying views as to whether group practice lowers or raises costs—the answer really depending upon whether the particular case needs "the works" or not.

The focal points in good group organization are stressed—clarity in financial arrangements, cooperation (among the doctors inside the group, and with the doctors outside it), the presence of an "integrator," flexible spirit and procedure, periodic review and professional analysis of the group work.

The question is raised whether the closer organization of hospital staffs and development of their group functioning, and the drawing in of more practitioners into connection with hospital work may not mean that the real development of the future will be the hospital group rather than the independent group organization, or the "commercial" group of the present.

VI

The Place of the Hospital

This chapter refers to the progressive development by which the hospital has become the center both of medical practice and medical education. The community hospital is

suggested as one way of meeting present needs, in certain types of community. On the other hand, some views stress the danger of increasing the number of independent small hospitals, and the need to make sure that the establishment of community hospitals shall never run ahead of provision for adequate staffing of them.

Attention is called to the possibility of having community hospitals serve combined districts or groups of towns or counties.

The potential influence of every hospital on the quality of medical practice in the whole surrounding area is recognized by experienced or especially perceptive observers.

The location of hospitals is recognized as a focal point in the organization of medical care and it is recognized that planning on a national base is ideally in order if hospital facilities are really to be related to the needs of the population and the facilities of medical science.

Hospital costs are discussed and the possibilities of lowering them by cutting out the "frills," by simplifying the elaborate construction policy of recent years, and by unifying hospital management, regarding the interest of the patient as the controlling factor.

The financing of hospitals present and future is discussed, and reference is made to the two obvious (and perhaps rather alternative than concurrent) solutions to the hospital's financial problem—(1) hospital insurance, or (2) direct allocation of tax funds to hospitals in proportion to the amount of care they give to the indigent and the "medically indigent." There is concrete discussion of the questions of selecting, organizing—and paying—hospital staffs. It is recognized that either the open or closed staff will work if properly organized. Stress is rather generally laid on the need of better and closer organization of hospital staffs.

Hospital management and superintendence are reviewed. Finally, the place of the hospital in medical education is indicated and—potentially at least—in medical research.

VII

Public Health Organization

This includes a discussion of the United States Public Health Service, the state health

the rare and unusual case, without reference to the fact that the common ailments will probably constitute most of the young graduate's practice

The need of postgraduate training as a means of maintaining the competence of practitioners is discussed, with varying degrees of faith in brief "brush up" courses, but with general conviction that ways must be developed to make it possible for men who are not in regular touch with medical centres and who have limited opportunities for clinical observation to keep in touch with important developments in diagnosis and treatment.

The medical schools are presented as a logical center of research

The section on medical education concludes with a discussion of the present state licensing laws. The desirability of higher and uniform standards for licensure is set forth with a good deal of conviction. The present licensing provisions are rather generally characterized as too uneven and too broad. One group would recommend federal licensure—if constitutional obstacles could be surmounted. One group would have provisional licensure, making it necessary for practitioners to take re-examinations or otherwise demonstrate every five years or so that they have developed their ability and are competent in the practice of a rapidly developing science.

There is discussion of the practicability and value of having in every state a "basic science law" which would at least require every kind of practitioner of the healing art, whatever his cult, to demonstrate a certain amount of knowledge of the human body before permitting him to practice his particular brand of therapy

IV

Specialization

There is extensive comment on the drift toward specialization and the causes of it—the expanding field of medicine, the public's preference for specialists, the commercial rewards. The reply to the moot question whether there is over specialization, as one gathers it from these letters, is comparatively simple: there are too many poor specialists and there are not enough good ones. The qualified specialist is characterized as the finest development of modern

medical science. There is thoroughgoing discussion of the means of defining the requirements for specialized practice, including surgery regarded as a specialty. There is very frank discussion of the ill qualified and self-nominated specialists and also of the surgeon who achieves his competence—if he does achieve it—at the expense of the public.

The twelve certifying boards set up by the profession itself as a means of distinguishing between qualified and unqualified men in special practice and in surgery are commented upon at length. There is a difference of opinion as to whether these boards, as a voluntary measure without legislative sanction, will be able to regulate the situation, or whether in the end legislation will be required. There is rather general agreement, however, that in any case the boards are a step forward and will be the best guide to legislation if in the long run legislation should be needed. An appendix (II) supplies more detailed information on the methods worked out by the various boards for ascertaining whether a "specialist" or a surgeon has the proper training and above all the *experience* that justifies assumption of special practice.

Stress is laid on the actual and potential usefulness of the hospital in controlling standards, particularly of the surgical and obstetrical work done in the institution, the hospital can control by requiring consultation, under stated conditions, by a policy of reviewing each surgeon's work, by requirement of pathological examination (of all tissue removed by operation) and use of the results.

Postgraduate training for specialty practice is discussed, the difficulty of testing for *experience* is recognized but the need of such testing is regarded as unequivocal.

V

Group Practice

"Group practice" is used here with reference to groups of doctors and not with reference to groups of patients. The discussion in this chapter centers around the important question whether the field of medicine has indeed become too complex for the individual to deal with it adequately and whether or not the practice of the medicine of the future will be practice by specialists in groups.

On the abstract question of the value of the consultative principle in the practice of medicine there is little disagreement. But there is a good deal of disagreement as to whether the consultative principle can be incorporated and whether, if it can, group practice furnishes the incorporation.

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Hospital management and superintendence are reviewed. Finally, the place of the hospital in medical education is indicated and—potentially at least—in medical research.

VII

Public Health Organization

This includes a discussion of the United States Public Health Service, the state health

departments, county and local units. Co-operation between the federal and state public health agencies under the Social Security Act is discussed, and also provision for public health training under the Social Security Act.

One of the points of greatest interest discussed in this chapter is the relation, both traditional and potential, between the public health organization and the private practice of medicine.

There is a great deal of stress on the point that the time has gone by when the public health officer deals with prevention and the private practitioner with cure. Disease control and the health of the people follow no such sharp alignments of function and responsibility. The sources of cooperation between public health authorities and private practitioners, where cooperation has been achieved, and the causes of antagonism where opposition has characterized the relation of these two groups are cited. There is more than a little reference to a medical practice of the future when "preventive medicine" will be as largely practiced in the physician's office as in the public health department. This presages the growing importance of working out the true relation between the private practitioner and the public health officer.

Attention is called also to the need of a larger and a more creative dealing with preventive medicine in the medical schools, where it is now often an uninspiring, not to say a dull, subject in the curriculum. Reference is made also to the need of better training for public health work and a better relation of it to "orthodox" medical education.

VIII

State, County and Community Plans for Providing Medical Service

This chapter summarizes experiments made of late years to meet the needs of the indigent and the low income groups by various types of cooperative plans, sometimes between government and the medical profession, sometimes between the medical profession and social agencies, sometimes by the medical profession alone.

The sum of this discussion seems to show that these plans are less well developed than reference to them in some places would lead us to believe. The plans in operation cover

various examples of post-payment or credit bureau plans, examples of pre-payment or insurance plans, plans for the care of the indigent alone, etc.

A good deal of the emphasis on the importance of these plans ignores the fact that the question of post-payment or pre-payment is highly academic when people can not pay at all. Neither system reaches the indigent. It is recognized that experimentation is useful but that it is dangerous to depend entirely upon *procedures* where needs are fundamental. The *ways* of paying, a number of commentators point out, will not create the *means*.

IX

State Medicine

This chapter deals with state medicine in the thoroughgoing sense—i.e., government paid and controlled doctors.

The views in favor of state medicine in this sense rest on the premise that there can be no real distinction between public health and private health, that abuses in the present system such as fee splitting can be remedied only by state medicine, that state medicine, whether or not desirable, is *coming*.

The views opposing state medicine object to socializing medicine in an otherwise capitalistic system, express fear of political control, express distrust of governmental efficiency, fear jeopardizing research, destroying the doctor-patient relation.

State medicine in Sweden is briefly touched upon.

X

Health Insurance

The views on this chapter range all the way from those that regard general compulsory insurance as the answer to present problems to those that consider the principle of insurance in any form entirely inapplicable to the subject of health.

One group feels that only compulsory insurance can possibly meet the situation and that every one should be compelled to save for medical care.

General objections to the theory of insurance include the feeling that it always has a demoralizing effect on patients—and on doctors—i.e., both the givers and the receivers of services so arranged for, that

it is not suited to American institutions, and that it offers no help to the indigent the care of whom constitutes a grave part of the present need

Objections to insurance, in the more concrete discussion, include its assumed deteriorating effect on the quality of medical care, its limited coverage, its cost

The need for further study is stressed by those inclined to favor and those inclined to disapprove compulsory insurance.

Workmen's compensation laws are reviewed briefly, with reports on good and also upon undesirable results. Mention is made of the recent changes in the workmen's compensation law of New York State.

As to voluntary insurance the view is generally held that there can be no reasonable objection to individuals' and groups' insuring themselves as they see fit. Few seem to feel however that voluntary insurance furnishes a sufficient answer to present difficulties since it is admitted that those most in need of insurance either will not arrange to take it or cannot pay the premiums.

Hospital insurance is rather fully discussed and detailed accounts are given of hospital plans in operation in six places.

Both those that look favorably upon the more extensive development of hospital insurance and those more dubious about it agree that it seems to furnish one kind of answer to the present financial crisis of the hospitals, and also to the problem caused by the inability of the low income group to meet the cost of hospitalization especially. Those that believe, however, that in the long run tax support will be needed for hospitals feel that the hospital insurance movement may obscure for a time what they regard as the really permanent solution.

Points that emerge, as in need of particular consideration, from recent experimentation in hospital insurance include the lack of physical examination, the inclusion of x-ray, laboratory and other special services, the question of rates and reserves, the possibility of modification of hospital insurance plans for rural districts, the need of determining essential costs in hospital service, the need of reviewing the question of rates for dependents, the relation to diagnostic and therapeutic facilities, and to preventive measures.

Of course the moot question of including medical care in the insurance arrangement

recurs in the reference to some of the above points, and throughout the discussion generally.

This section concludes with a discussion of contract practice, a statement of the arguments for and against industrial group medicine, and illustrations of various forms of industrial group medicine and of contract practice.

XI

Limited State Medicine and Private Practice

This section assembles the proposals that appear in this correspondence for a further extension of government authority and government funds in the promotion of public health and the provision of medical services, integrated with the private practice of medicine.

The point of view most generally behind these proposals is that increased participation of government by evolutionary process is inevitable and desirable.

Many of the contributors to this chapter look hopefully toward an eventual merging of preventive and curative medicine, and regard insistence on separating them as reactionary and stupid. They believe that preventive medicine will more and more be practiced in the doctor's office and that it will some day be generally recognized that the resources of medical science and the energies of the doctor are properly to be devoted to the prevention as well as to the cure of disease. The better health of the race becomes the objective.

The development of the public health services, federal, state and local, is regarded as an outstanding possibility in the search for solution of present problems.

There is a brief summary of what has been done under the social security appropriations in the way of improving the public health services in various states.

It is pointed out that year after year additional diseases are considered to be "endowed with a public interest" involving governmental functioning. The list steadily increases tuberculosis, cancer, pneumonia, syphilis, have already an admitted "public" status, and there are, in various states, proposals for including diseases of the heart and circulatory system arthritis and other diseases which have been shown to be a

large factor in disability among the population and which require a treatment too long and too expensive to be within the financial compass of most citizens

The current attempt at venereal disease control comes in for special comment, and the need of cooperation between public health authorities and private practitioners is illustrated by reference to the methods required for detecting, diagnosing and treating this disease—and the impossibility of sharply separating the preventive and the curative functions in this case

One of the most urgent present problems, in general, is felt to be a definition of the truest and most productive relation between private practitioners and public health authorities, whose work, it is submitted, can less and less be sharply dissociated

A full development of both the preventive and curative aspects of modern scientific medicine makes necessary an integration of public health services with private practice—an intimate, understanding and cooperative development of "state medicine" and private practice—neither of which can apparently reach its ultimate development alone

There is a discussion of federal responsibility for providing medical care in sparsely populated communities and in areas where uncertainty of crops, drought and other hazards are characteristic and where state funds are also uncertain and obviously insufficient.

There is a summary of the large body of opinion that regards the medical care of the indigent as a logical and direct charge upon tax funds, local to the greatest practicable degree but with state aid, and federal aid under certain conditions and in certain places. In this connection the principle of federal grants-in-aid to the states is mentioned as the best means of working out on a nation-wide base, standards for the care of the indigent, always recognizing the need of variation according to local differences but recognizing also the need of *minimum* standards. Federal participation is suggested as the available means, under the constitution, for enabling states and localities to meet these minimum standards where, without federal stimulus and federal funds, states and localities either would not or could not do so

A Federal Department of Health is fre-

quently proposed as *justified* under the present powers and degree of functioning of the federal government in matters of health, and as *imperative* with the proposed increases in this functioning indicated by the present appropriations of the Social Security Act, and by such proposals as federal grants-in-aid for the care of the indigent sick, mentioned above.

There is a passing reference to the possibility of interpreting (presumably by constitutional amendment) the general welfare clause of the constitution to enable the federal government to establish a national health authority. If this is not done, even under the present constitutional limitations, the federal grants-in-aid principle, as already invoked by the Social Security Act, provides room for the evolutionary development of federal health functioning

The use of direct tax funds for hospitals is discussed, also the possibility of extending the facilities of tax supported laboratories in order that the scientific aids to diagnosis may be available to practitioners generally, and therefore to patients of all grades of income, at prices they can pay, and free to the indigent

The relation of government to medical education is not very fully discussed, but in addition to the point already cited under medical education—i.e., that medical schools can hardly control standards or select candidates for medical education according to a highly selective principle if they are dependent upon tuition fees—there is mention of other aspects of a possible relation between government and the medical schools, including a potential relation between university medical schools and public health services

In the discussion of government aid to research it is recognized that funds of large foundations and philanthropies have hitherto furnished a large part of the support of medical research. There is clear-cut indication that any planning for the organization of medical care on a broad base will need to include provision for competent research as the heart alike of preventive and curative medicine

Appendices

There are four appendices

The *first* gives the substantial content of

the letters of inquiry to the doctors, in order that the readers of this report may better interpret the doctors' replies

The *second* appendix contains a statement of the provisions established by "certifying boards" in twelve divisions of medicine, including surgery, for raising, by voluntary procedure, the standards of special practice and of surgery. There is a review of the methods chosen by the boards for establishing qualification both as to academic training and, more importantly, as to experience.

New York State Physicians Who Participated in the American Foundation's Inquiry on the Organization of Medical Care

- 1 Charles Gordon Heyd, New York City, President, American Medical Association
- 2 Willard C. Rappleye, New York City, Dean, Columbia University College of Physicians and Surgeons and Columbia University School of Dental and Oral Surgery, Director, Columbia University, New York Post Graduate Medical School, Professor of Medical Economics, Columbia University, Director of Study Commission on Medical Education
- 3 Arthur Wells Elting, Albany, Vice-President, American Surgical Association
- 4 George Hoyt Whipple, Rochester, Past President American Association of Pathologists and Bacteriologists, American Society for Experimental Pathology
- 5 Russell L. Cecil, New York City, Professor of Clinical Medicine, Cornell University Medical College
- 6 William S. McCann, Rochester, Physician in Chief, Strong Memorial and Rochester Municipal Hospitals.
- 7 William A. Groat, Syracuse, Chairman, Committee on Scientific Work, Medical Society of the State of New York.
- 8 Louis Casamajor, New York City, President of the New York Psychiatric Society
- 9 Arthur Freeborn Chace, New York City, President of Board, New York Post Graduate Medical School and Hospital of Columbia University
- 10 Lewis A. Couter, New York City, Consulting Physician, New York Hospital
- 11 Walter T. Daonreuther, New York City, President, American Board of Obstetrics and Gynecology
- 12 William Darrach, New York City, Dean Emeritus and Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons
- 13 Willard J. Denno, New York City, General Medical Director and executive head of 22 industrial hospitals, Standard Oil Company of New Jersey
- 14 Nathan B. Van Etten, Bronx, Medical Director and President, Morrisania City Hospital, Speaker, House of Delegates of American Medical Association
- 15 Eugene F. Du Bois, New York City, Physician in Chief, New York Hospital, Medical Director, Rensselaer Institute
- 16 Edmund Prince Fowler, New York City, President, American Otological Society
- 17 Kendall Emerson, New York City, Managing Director, National Tuberculosis Association
- 18 Lewis Fox Frassell, New York City, Medical Director, St. Luke's Hospital.
- 19 Francis H. Glazebrook, New York City, Medical Director, New York Stock Exchange.

The *third* appendix is a list of industrial medical services approved by the American College of Surgeons. It is to be taken into account in connection with the discussion of contract medicine which concludes Chapter X on Health Insurance.

The *fourth* appendix consists of the list of the doctors and surgeons that contributed to this inquiry. It should be taken into account in connection with the introductory section summarizing the types of practice and the divisions of medicine represented by the "contributors."

- 20 Smith Ely Jelliffe, New York City, Consultant, Manhattan and Kiogs Park State Hospitals
- 21 Robert Hayward Kennedy, New York City, Surgical Director, Beckman Street Hospital
- 22 Samuel J. Kopetzky, New York City, Professor of Otolaryngology, New York Polyclinic Medical School and Hospital, Speaker, House of Delegates, Medical Society, State of New York.
- 23 George W. Kosmak, New York City, Editor, American Journal of Obstetrics and Gynecology, Consultant in Obstetrics, New York State Department of Health, Consultant, Federal Children's Bureau, Vice-President, American Gynecological Society
- 24 Walter L. Miles, New York City, Vice-President, New York Academy of Medicine, formerly, Dean, Cornell University Medical College.
- 25 Walter W. Palmer, New York City, Director of Medical Service, Presbyterian Hospital
- 26 William L. Russell, New York City, General Psychiatric Director, Society of the New York Hospital, Past President American Psychiatric Association, New York Psychiatric Society
- 27 Charles Hendee Smith, New York City, Professor of Pediatrics, New York University, University and Bellevue Hospital and Medical College
- 28 Frederic E. Soudern, New York City, Past President, New York State Medical Society
- 29 Frederick Tilney, New York City, Professor of Neurology, Columbia University College of Physicians and Surgeons
- 30 John Henry Wyckoff, New York City, Dean and Professor of Medicine, New York University College of Medicine.
- 31 E. William Abramowitz, New York City, Associate Professor of Clinical Dermatology and Syphilology, New York Post Graduate Medical School and Hospital
- 32 S. A. Agatston, New York City, Associate Ophthalmologist, Bellevue Hospital
- 33 Frederick M. Allen, New York City, Professor of Internal Medicine (Metabolism), New York Polyclinic Medical School and Hospital
- 34 W. P. Anderton, New York City, Associate Attending Physician, Presbyterian Hospital
- 35 Donald Budd Armstrong, New York City, Third Vice-President, Metropolitan Life Insurance Company
- 36 Helen Baldwin, New York City, Consultant to the New York Infirmary for Women and Children
- 37 Frederic W. Bancroft, New York City, Associate Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons

large factor in disability among the population and which require a treatment too long and too expensive to be within the financial compass of most citizens

The current attempt at venereal disease control comes in for special comment, and the need of cooperation between public health authorities and private practitioners is illustrated by reference to the methods required for detecting, diagnosing and treating this disease—and the impossibility of sharply separating the preventive and the curative functions in this case

One of the most urgent present problems, in general, is felt to be a definition of the truest and most productive relation between private practitioners and public health authorities, whose work, it is submitted, can less and less be sharply dissociated

A full development of both the preventive and curative aspects of modern scientific medicine makes necessary an integration of public health services with private practice—an intimate, understanding and cooperative development of "state medicine" and private practice—neither of which can apparently reach its ultimate development alone

There is a discussion of federal responsibility for providing medical care in sparsely populated communities and in areas where uncertainty of crops, drought and other hazards are characteristic and where state funds are also uncertain and obviously insufficient.

There is a summary of the large body of opinion that regards the medical care of the indigent as a logical and direct charge upon tax funds, local to the greatest practicable degree but with state aid, and federal aid under certain conditions and in certain places. In this connection the principle of federal grants-in-aid to the states is mentioned as the best means of working out on a nation-wide base, standards for the care of the indigent, always recognizing the need of variation according to local differences but recognizing also the need of *minimum* standards. Federal participation is suggested as the available means, under the constitution, for enabling states and localities to meet these minimum standards, where, without federal stimulus and federal funds, states and localities either would not or could not do so.

A Federal Department of Health is fre-

quently proposed as *justified* under the present powers and degree of functioning of the federal government in matters of health, and as *imperative* with the proposed increases in this functioning indicated by the present appropriations of the Social Security Act, and by such proposals as federal grants-in-aid for the care of the indigent sick, mentioned above.

There is a passing reference to the possibility of interpreting (presumably by constitutional amendment) the general welfare clause of the constitution to enable the federal government to establish a national health authority. If this is not done, even under the present constitutional limitations, the federal grants-in-aid principle, as already invoked by the Social Security Act, provides room for the evolutionary development of federal health functioning.

The use of direct tax funds for hospitals is discussed, also the possibility of extending the facilities of tax supported laboratories in order that the scientific aids to diagnosis may be available to practitioners generally, and therefore to patients of all grades of income, at prices they can pay, and free to the indigent.

The relation of government to medical education is not very fully discussed, but in addition to the point already cited under medical education—i.e., that medical schools can hardly control standards or select candidates for medical education according to a highly selective principle if they are dependent upon tuition fees—there is mention of other aspects of a possible relation between government and the medical schools, including a potential relation between university medical schools and public health services.

In the discussion of government aid to research it is recognized that funds of large foundations and philanthropies have hitherto furnished a large part of the support of medical research. There is clear-cut indication that any planning for the organization of medical care on a broad base will need to include provision for competent research as the heart alike of preventive and curative medicine.

Appendices

There are four appendices

The *first* gives the substantial content of

the letters of inquiry to the doctors, in order that the readers of this report may better interpret the doctors' replies

The *second* appendix contains a statement of the provisions established by "certifying boards" in twelve divisions of medicine, including surgery, for raising, by voluntary procedure, the standards of special practice and of surgery. There is a review of the methods chosen by the boards for establishing qualification both as to academic training and, more importantly, as to experience.

The *third* appendix is a list of industrial medical services approved by the American College of Surgeons. It is to be taken into account in connection with the discussion of contract medicine which concludes Chapter X on Health Insurance.

The *fourth* appendix consists of the list of the doctors and surgeons that contributed to this inquiry. It should be taken into account in connection with the introductory section summarizing the types of practice and the divisions of medicine represented by the "contributors."

New York State Physicians Who Participated in the American Foundation's Inquiry on the Organization of Medical Care

- 1 Charles Gordon Heyd, New York City, President, American Medical Association
- 2 Willard C Rappleye, New York City, Dean Columbia University College of Physicians and Surgeons and Columbia University School of Dental and Oral Surgery, Director, Columbia University, New York Post-Graduate Medical School, Professor of Medical Economics Columbia University, Director of Study, Commission on Medical Education
- 3 Arthur Wells Elting, Albany, Vice President American Surgical Association
- 4 George Hoyt Whipple, Rochester, Past President American Association of Pathologists and Bacteriologists, American Society for Experimental Pathology
- 5 Russell L Cecil, New York City, Professor of Clinical Medicine, Cornell University Medical College.
- 6 William S McCann, Rochester, Physician in chief, Strong Memorial and Rochester Municipal Hospitals
- 7 William A Groat, Syracuse, Chairman, Committee on Scientific Work, Medical Society of the State of New York.
- 8 Louis Casamajor, New York City, President of the New York Psychiatric Society
- 9 Arthur Freeborn Chace, New York City, President of Board, New York Postgraduate Medical School and Hospital of Columbia University
- 10 Lewis A Conner, New York City, Consulting Physician, New York Hospital
- 11 Walter T Dannreuther, New York City, President, American Board of Obstetrics and Gynecology
- 12 Wilham Darrach, New York City, Dean Emeritus and Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons
- 13 Willard J Denno, New York City, General Medical Director and executive head of 22 industrial hospitals, Standard Oil Company of New Jersey
- 14 Nathan B Van Etten, Bronx, Medical Director and President Morrisania City Hospital, Speaker, House of Delegates of American Medical Association.
- 15 Eugene F Du Bois, New York City, Physician in Chief, New York Hospital, Medical Director, Russell Sage Institute
- 16 Edmund Prince Fowler, New York City, President, American Otolological Society
- 17 Kendall Emerson, New York City, Managing Director, National Tuberculosis Association
- 18 Lewis Fox Frissell, New York City, Medical Director, St. Luke's Hospital.
- 19 Francis H Glazebrook, New York City, Medical Director, New York Stock Exchange.

- 20 Smith Ely Jelliffe, New York City, Consultant, Manhattan and Kings Park State Hospitals
- 21 Robert Hayward Kennedy, New York City, Surgical Director, Beckman Street Hospital
- 22 Samuel J Kopetzky, New York City, Professor of Otolaryngology, New York Polyclinic Medical School and Hospital, Speaker, House of Delegates, Medical Society, State of New York
- 23 George W Kosmak, New York City, Editor, American Journal of Obstetrics and Gynecology, Consultant in Obstetrics, New York State Department of Health, Consultant, Federal Children's Bureau, Vice-President, American Gynecological Society
- 24 Walter L Niles, New York City, Vice President, New York Academy of Medicine, formerly, Dean, Cornell University Medical College
- 25 Walter W Palmer, New York City, Director of Medical Service, Presbyterian Hospital
- 26 William L. Russell, New York City, General Psychiatric Director, Society of the New York Hospital, Past President, American Psychiatric Association, New York Psychiatric Society
- 27 Charles Hendee Smith, New York City, Professor of Pediatrics, New York University, University and Bellevue Hospital and Medical College
- 28 Frederic E Sondern, New York City, Past President, New York State Medical Society
- 29 Frederick Tilney, New York City, Professor of Neurology, Columbia University College of Physicians and Surgeons
- 30 John Henry Wyckoff, New York City, Dean and Professor of Medicine, New York University College of Medicine
- 31 E. William Abramowitz, New York City, Associate Professor of Clinical Dermatology and Syphilology, New York Post Graduate Medical School and Hospital
- 32 S A Agatston, New York City, Associate Ophthalmologist, Bellevue Hospital
- 33 Frederick M Allen, New York City, Professor of Internal Medicine (Metabolism), New York Polyclinic Medical School and Hospital
- 34 W P Anderton, New York City, Associate Attending Physician, Presbyterian Hospital
- 35 Donald Bndd Armstrong, New York City, Third Vice-President, Metropolitan Life Insurance Company
- 36 Helen Baldwin, New York City, Consultant to the New York Infirmary for Women and Children
- 37 Frederic W Bancroft, New York City, Associate Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons

38 William Howard Barber, New York City, Visiting Surgeon, Bellevue Hospital

39 Anthony Bassler, New York City, Consulting Gastro-enterologist, St. Vincent's, American Cancer Hospitals

40 Louis Bauman, New York City, Assistant Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons

41 Louis Faugeres Bishop, New York City, Consultant, Diseases of the Heart, Lincoln Hospital

42 Ernest P Boas New York City, Administrative Consultant for Chronic Diseases, Hospital Department of New York City

43 Wesley C Bowers, New York City, Attending Otolological Surgeon, St. Luke's Hospital

44 A A Brill, New York City, Lecturer on Psychoanalysis, Columbia University College of Physicians and Surgeons

45 Daniel Noyes Brown, New York City, General Practitioner

46 Jesse G M Bullock, New York City Clinical Professor of Medicine, New York University, practice limited to internal medicine, Visiting Physician, Harlem Hospital and Willard Parker Hospital College of Medicine.

47 Robert Burlingham, New York City, Assistant in Pathology, Cornell University Medical College.

48 Trigan Burrow, New York City, Psychiatrist

49 G A Carlucci, New York City, Visiting Surgeon Booth Memorial and Misericordia Hospitals

50 Thomas Hayes Curtin, New York City Eye Specialist

51 Annie S Daniel, New York City, Pediatrician

52 Morris Davidson, New York City, Ophthalmologist, New York State Department of Labor

53 William Van Valzah Hayes, New York City Professor Emeritus of Gastro-enterology, New York Polyclinic Medical School and Hospital

54 Albert Knecht Detwiler, New York City Internist.

55 John Douglas, New York City Consulting Surgeon, Knickerbocker, Bellevue, Harlem Eye and Ear Hospitals.

56 Cary Eggleston, New York City, Assistant Professor of Clinical Medicine, Cornell University Medical College, Associate Attending Physician, New York Hospital

57 Haven Emerson, New York City, Professor of Public Health Practice, Columbia University College of Physicians and Surgeons

58 Joseph Felsen, New York City Pathologist.

59 Robert T Frank, New York City, Gynecologist Mt Sinai Hospital

60 Rowland Godfrey Freeman, New York City Professor Emeritus of Pediatrics New York University and Bellevue Hospital Medical College

61 Percy H Fridenberg, New York City Associate Professor, Post Graduate Medical School and Hospital

62 A L Garbat, New York City Gastro-Enterologist.

63 John C A Gerster New York City Associate Surgeon, Lenox Hill and Stuyvesant Square Hospitals

64 Raymond Gettinger New York City, Pathologist and Director of Laboratory, New York Institute of Clinical Oral Pathology

65 Samuel B Beaser New York City Medical Service of Presbyterian Hospital

66 Elizabeth I Adamson, New York City, Neurologist and Psychiatrist

67 Alex Goldman, New York City General Practitioner

68 Malcolm Goodridge New York City, Professor of Clinical Medicine, Cornell University Medical College

69 Charles Graef, New York City, Eye, Ear, Nose and Throat Specialist.

70 Gaylord W Graves, New York City, Clinical Professor of Pediatrics New York University Medical College.

71 Francis D Gulliver, New York City, Attending Ophthalmologist, St Vincent's Hospital.

72 Henry Ewing Hale, New York City, retired.

73 Carl Gayler Harford, New York City, Pathologist.

74 T Stuart Hart, New York City General Practitioner

75 Isaac Hartshorne, New York City, Assistant Ophthalmological Surgeon, New York Eye and Ear Infirmary

76 John A Hartwell, New York City Consulting Surgeon, Bellevue, Reconstruction, General Memorial Hospitals

77 Robert A. Hatcher, New York City, formerly Professor of Pharmacology, Cornell University Medical College.

78 Alfred M Hellman, New York City, Associate Gynecologist and Obstetrician, Lenox Hill Hospital

79 W W Herrick, New York City, Attending Physician, Presbyterian Hospital, Sloane Hospital for Women

80 James Morley Hitzrot, New York City, Consulting Surgeon, Hospital for the Ruptured and Crippled.

81 Henry Lyman Hooker, New York City, General Practitioner

82 Peter Irving, New York City, Secretary, New York State Medical Society, and an Editor of New York State Journal of Medicine

83 Harry E Isaacs, New York City, Surgeon.

84 Herman Kantor, New York City, Internship, Harlem Hospital

85 Henry James, New York City, Internist.

86 Paul Allan Kaufman, New York City, Surgical Out Patient Department, Bronx Hospital

87 Henry Kendall, New York City, Gastroenterologist.

88 E L Keyes, New York City Professor of Urology, Cornell University Medical College.

89 L Winfield Kohn, New York City, Internist.

90 C. H Lavinder, Ellis Island, Chief Medical Officer, Ellis Island

91 Robert L. Levy, New York City, Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons

92 B Liber, New York City, Lecturer on Mental Hygiene at the New York Polyclinic Medical School and Hospital

93 Alfred Lilienfeld New York City, Junior Assistant Physician New York Post Graduate Hospital.

94 Howard Lilienthal New York City Consulting Surgeon Mt. Sinai and Bellevue Hospitals

95 Ward J MacNeal, New York City, Director Laboratories of Pathology and Bacteriology of the New York Post Graduate Medical School and Hospital

96 Charles H May New York City, Consulting Ophthalmic Surgeon, Bellevue and Mt. Sinai Hospitals

97 Leo Mayer New York City, Associate Professor of Orthopedic Surgery New York Post-Graduate Medical School and Hospital

98 Marsh McCall, New York City, Internist.

99 Frank L. Meloney, New York City, Assistant Professor of Surgery, Columbia University College of Physicians and Surgeons

100 Alfred Meyer, New York City, retired.

101 James Alexander Miller, New York City President (1935-1936), American College of Physicians

102 C W Munger, Valhalla, President, American Hospital Association.

103 Josephine B Neal, New York City In Charge, Division of Applied Therapy, Bureau of Laboratories, New York City Department of Health, Executive Secretary, Matheson Commission, Encephalitis Research, Neurological Institute.

104 Arthur Edwin Neergaard, New York City, Associate Professor of Clinical Medicine Columbia University College of Physicians and Surgeons

105 John Joseph Nutt New York City Professor of Orthopedic Surgery, New York Polyclinic Medical School and Hospital.

106 Reuben Ottenberg New York City, Pathologist

107 Harold E B Pardee, New York City, Clinical Professor of Internal Medicine (Cardiology), New York Polyclinic Medical School and Hospital

108. Eugene Hillhouse Pool New York City, Senior Attending Surgeon, New York Hospital

109 J H Richards New York City, General Practitioner

110 Thomas Milton Rivers, New York City, Member, Rockefeller Institute for Medical Research.

111 Samuel S Rosenfeld, New York City, Associate Attending Gynecologist and Obstetrician, Lebanon Hospital.

112 Zachary Sagal, New York City, Internist.

113 Jesse F Sammis New York City, Assistant Professor of Clinical Pediatrics, Cornell University Medical College.

114 Henry Satterlee, New York City, General Practitioner

115 Carlo Savini, New York City, Visiting Surgeon Columbus Hospital

116 S W Schapira, New York City, Urologist

117 P J R Schmahl, New York City, Clinical Professor of Medicine, New York Homeopathic Medical College and Flower Hospital

118. M Schulman New York City, Assistant Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons.

119 N Gilbert Seymour, New York City, Medical Director, Booth Memorial Hospital

120 Robert F Sheehan, New York City, Surgeon, Lieutenant Commander U S Navy, retired.

121 Clarence H. Smith, New York City Professor of Clinical Otolaryngology, New York Post-Graduate Medical School.

122 Arthur Woodward Booth, Elmira, Trustee American Medical Association

123 DeWitt Hendee Smith, New York City, Assistant in Medicine College of Physicians and Surgeons of Columbia University

124 Rufus E Stetson New York City, Specialist in Blood Transfusion.

125 Simon Strauss, New York City Adjunct Professor of Gynecology and Obstetrics, New York Polyclinic Medical School and Hospital

126 Howard Canning Taylor, New York City Gynecologist, Roosevelt Hospital.

127 Norman Edwin Titus, New York City, Physical Therapist.

128 Frederick T Van Beuren, Jr New York City, Associate Visiting Surgeon, Presbyterian Hospital

129 Jerome Wagner, New York City, Adjunct Professor of Proctology New York Polyclinic Medical School and Hospital.

130 Henry Wallace New York City, Attending Physician Emeritus Mountainside Hospital (Montclair, New Jersey)

131 Henry Wexler, New York City, General Practitioner

132 Allen O Whipple, New York City Director of Surgical Service, Presbyterian Hospital

133 Herbert B Wilcox, New York City Professor of Diseases of Children, Columbia University College of Physicians and Surgeons

134 A. O Wilensky, New York City, Chief of Surgical Service, Brownsville and East New York Hospital.

135 Fred Wise, New York City, Professor of Clinical Dermatology and Syphilology, New York Post Graduate Medical School and Hospital of Columbia University

136 Heinrich F Wolf, New York City, Specialist in Rheumatic Diseases and Physical Therapy

137 I Ogden Woodruff, New York City, Visiting Physician and Director, Bellevue Hospital

138 Louis T Wright, New York City, General Practitioner and Surgeon.

139 Floyd S Winslow, Rochester, President Medical Society of the State of New York

140 Morton Yohalem, New York City, Internship, Mt. Sinai Hospital

141 Henry Joachim, New York City, President, Medical Society of the County of Kings

142 Arthur J Bedell, Albany Attending Ophthalmologist St Peter's Hospital

143 Edward S Godfrey, Jr, Albany, Commissioner of Health for State of New York

144 Andrew MacFarlane, Albany Managing Editor of the Nelson Loose Leaf resigned (deceased)

145 Augustus B Wadsworth, Albany, Director, Division of Laboratories and Research, New York State Department of Health

146 Paul Harold Watson, Beacon, Associate Physician, Craig House Sanitarium.

147 William H. Ross, Brentwood, President, Suffolk County Department of Health

148 James H Borrell, Buffalo, Attending Urologist, Millard Fillmore, Lafayette General Hospitals, Buffalo Hospital of the Sisters of Charity

149 Byron D Bowen, Buffalo, Attending Physician, Buffalo General Hospital

150 Karl F Eschelman Buffalo, Director of Cancer Clinic, Buffalo City Hospital

151 Walter S Goodale, Buffalo, Professor of Hygiene and Public Health University of Buffalo School of Medicine.

152 Clayton W Greene, Buffalo Associate Professor of Medicine, University of Buffalo School of Medicine

153 James E King, Buffalo, Gynecologist in-chief, Buffalo City Hospital

154 Mansfield G Levy, Buffalo, Assistant in Pediatrics, University of Buffalo School of Medicine

155 Edward E Cornwall New York City, Attending Physician, Norwegian Lutheran Deaconess' Home and Hospital.

156 Frederic E Elliott New York City Chairman Committee on Medical Economics of New York State Medical Society

159 Paul C. Eschweiler New York City, Chief Diabetic Clinic, Methodist Episcopal Hospital

158 Laurent Feinier New York City, Attending Neurologist, Neurological Institute

160 Frederick H Flaberty Syracuse Past President (1934), Medical Society of the State of New York

161 Frank A Gallo New York City Clinical Assistant in Surgery Flower Fifth Avenue Hospital

162 Arthur Goetsch New York City Assistant Clinical Professor of Surgery, Long Island College of Medicine

- 163 Irving Gray, New York City, Attending Physician, Coney Island and Sea View Hospitals
- 164 Leon N Greene, New York City, Internship, Mt. Sinai Hospital
- 165 F J Parmenter, Buffalo, Professor of Urology, University of Buffalo School of Medicine
- 166 Homer Trotter, Buffalo, New York, Consultant U S Marine Hospital, Ear, Nose and Throat Specialist.
- 167 George Edward Barnes, Herkimer, General Practitioner
- 168 John C Holzberger, Hillcrest, Jamaica, Long Island, Eye, Ear, Nose and Throat Specialist
- 169 L. M Kysor, Hornell, General Practitioner and Surgeon
- 170 Rosslyn P Harris, Hudson, Radiologist
- 171 G W Cottis, Jamestown, Surgeon
- 172 Ira P Trevett, Lackawanna, General Practitioner
- 173 Lewis A Koch, New York City, Chairman, Committee on Medical Economics, Medical Society of the County of Kings
- 174 Joseph Krumsky, New York City, Attending Otolaryngologist, Beth Moses Hospital
- 175 M L Levy, New York City, Associate Surgeon, Beth Moses Hospital
- 176 William Francis McKenna, New York City, Associate Attending Urologist, Brooklyn Hospital
- 177 Harry Meyersburg, New York City, Director, Department of Otolaryngology, Coney Island Hospital.
- 178 Edward J Morris, New York City, Gynecologist and Obstetrician, Holy Family Hospital
- 179 Alfred Potter, New York City, Director, Department Dermatology and Syphilis, Kings County Hospital
- 180 James Pullman, New York City, Internist
- 181 Nathaniel P Rathhun, New York City, Attending Urologist, Brooklyn Hospital
- 182 Samuel B Schenck, New York City, Attending Associate Gynecologist, General Hospital
- 183 W J M Wurtz, Buffalo, Eye, Ear, Nose and Throat Specialist
- 184 Donald Charles Tulloch, Cazenovia, General Practitioner
- 185 Archibald D Smith, New York City, Consulting Pediatrician, Brooklyn Hospital, Rockaway Beach Hospital and Dispensary
- 186 William F C Steinbugler, New York City, Assistant Surgeon, Brooklyn Eye and Ear Hospital
- 187 Ernest K Tanner, New York City, Chief Attending Surgeon, Brooklyn Hospital
- 188 Binford Throne, New York City, Attending Dermatologist, St Catherine's Hospital.
- 189 Walter Truslow, New York City, Consulting Orthopedic Surgeon, Brooklyn, Long Island College Kingston Avenue, Far Rockaway, St John's and Victory Memorial Hospitals
- 190 S A. Munford, Clifton Springs, Member of Staff, Clifton Springs Sanitarium and Clinic
- 191 Adrian S Taylor, Clifton Springs, Chief Surgeon and Superintendent, Clifton Springs Sanitarium and Clinic.
- 192 G M Mackenzie, Cooperstown, Physician in chief, Mary Imogene Bassett Hospital, Director, Otsego County Laboratory
- 193 N P Brooks, Croton on Hudson, General Practitioner
- 194 Samuel Karlan, Clinton County, Assistant Physician, Dannemora State Hospital
- 195 Wallace T Smith, East Rockaway, Public School Physician
- 196 Joseph S Lewis, Elmira, Director, Elmira Tumor Clinic
- 197 Ross G Loop, Elmira, Consulting Surgeon, Arnot Ogden Memorial, St. Joseph's and Tioga County General Hospitals
- 198 Bert G Voorhees, Elmira, Eye, Ear, Nose and Throat Specialist.
- 199 Joseph S Thomas, Flushing, Long Island Surgical Director, Flushing Hospital
- 200 J Elmer Cummins, Freeport, Long Island General Practitioner
- 201 John W Dean, Glens Falls, Ophthalmologist.
- 202 E. B Probasco, Glens Falls, Attending Surgeon, Glens Falls Hospital
- 203 Frederick L. Keays, Great Neck, Long Island General Practitioner
- 204 A J McRae Hempstead, Superintendent, Meadowbrook Hospital.
- 205 Ignatius L Stein, Long Island City, Chief of Surgical Clinic, St John's Long Island City Hospital.
- 206 Carl Muschenheim, Loomis, Assistant Physician at Loomis Sanatorium.
- 207 Oscar Northway Meyer, Middletown, Eye, Ear, Nose and Throat Specialist.
- 208 Robert Woodman, Middletown, Superintendent, Middletown State Homeopathic Hospital
- 209 J Louis Neff, Mineola, Executive Secretary, Medical Society of the County of Nassau.
- 210 Edward P Carter, Mount Kisco, Formerly Fellow in Pathology, Lecturer and Adjunct Professor of Medicine, Johns Hopkins University School of Medicine.
- 211 Grove P M Curry, Mount Kisco, General Practitioner
- 212 Andrew A. Eggston, Mount Vernon, Pathologist and Bacteriologist.
- 213 C A. Read, New Rochelle, Internist.
- 214 Charles A Smith, New Rochelle, General Practitioner
- 215 Holland Newton Stevenson, New Rochelle, Attending Otolaryngologist, New Rochelle Hospital.
- 216 Thomas F Manley, Norwich, Chief Surgeon Chenango Memorial Hospital.
- 217 Edward J Parish, Oneonta, General Practitioner and Orthopedist.
- 218 Richard Derby, Oyster Bay, Chief Surgeon, North Country Community Hospital
- 219 Arthur F Coca, Pear River, Editor, Journal of Immunology, Journal of Allergy, Secretary Treasurer, American Association of Immunologists.
- 220 Leo F Schiff, Plattsburg, Urologist and Clinical Pathologist.
- 221 Frank S Child, Port Jefferson, Long Island, Associate Orthopedic Surgeon.
- 222 Leander A Newman, Port Washington, General Practitioner
- 223 James T Harrington, Poughkeepsie, Attending Surgeon, Vassar Brothers Hospital.
- 224 James E Sadlier, Poughkeepsie, Surgeon in chief, Sadlier Hospital
- 225 Harriet Doane, Pulaski, Regional Director for North Atlantic States, Medical Women's National Association.
- 226 George W T Mills, Queens Village, Superintendent of the Creedmoor State Hospital.
- 227 Mark Simon Donovan, Ray Brook, Member of Medical Staff of Ray Brook Hospital
- 228 S J Appelbaum, Rochester, Director, Medical Service Division, City of Rochester Department of Public Welfare

229 Samnel S Bullen, Rochester, Assistant Professor of Medicine, University of Rochester School of Medicine.

230 C. Arthur Elden, Rochester, Gynecologist and Obstetrician

231 W Frank Fowler, Rochester, Attending Surgeon, Highland Hospital.

232 Edward L Hanes Rochester Consulting Neuropsychiatrist, St Mary's Genesee and Rochester State Hospitals, and Craig Colony

233 David B Jewett, Rochester, Director, Medical Department Genesee Hospital

234 A. M Johnson, Rochester, Health Officer, Bureau of Health of the City of Rochester

235 Albert D Kaiser, Rochester Associate Professor of Pediatrics, University of Rochester School of Medicine.

236 John J Lloyd, Rochester, Specialist in Tuberculosis

237 Basil C MacLean, Rochester, Director, Strong Memorial Hospital

238 John J Morton Rochester Surgeon-in-chief, Strong Memorial and Rochester Municipal Hospitals

239 Howard L Prince, Rochester, Surgeon

240 Joseph Robt Rochester Specialist in Public Health.

241 Albert C Snell Rochester, Consultant and Lecturer in Ophthalmology, Strong Memorial Hospital and University of Rochester School of Medicine and Dentistry

242 John M Swan, Rochester, Executive Secretary, New York State Committee, American Society for the Control of Cancer

243 Edward T Wentworth, Rochester, Orthopedic Surgeon, Park Avenue Hospital

244 John R. Williams, Rochester, Chief of Medical Staff Highland Hospital

245 Edward R Baldwin, Saranac Lake Director, Edward L Trudeau Foundation for Research and Teaching in Tuberculosis of the Trudeau Sanatorium

246 Albert Wilson Greene, Schenectady Eye, Ear, Nose and Throat Specialist

247 E. MacD Stanton, Schenectady Surgeon, Ellis Hospital and American Locomotive Company

248 David H Hallock Southampton Attending Surgeon, Southampton Hospital

249 John N Hayes Saranac Lake, Thoracic Surgeon.

250 Vincent G Smith Staten Island, Attending Surgeon, Staten Island Richmond Memorial and Richmond Borough Hospitals

251 Albert Getman, Syracuse, Attending Physician, General Hospital

252 Edward J Wynkoop, Syracuse Professor Emeritus of Pediatrics, Syracuse University College of Medicine

253 Herbert Carl Yeckel, Syracuse, Assistant Professor of Clinical Medicine Syracuse University College of Medicine

254 William B D Van Auker, Troy Obstetrician and Gynecologist

255 James W W Dimon, Utica General Practitioner

256 M T Powers Utica Radiologist

257 W B Roemer, Utica General Practitioner and Surgeon

258 Morris R Bradner Warwick, Surgeon, Warwick Hospital Alexander Lynn Hospital

259 J D Olin Watertown Urologist

260 Frank C Ard Westfield Consulting Surgeon.

261 Hermann J Boldt White Plains retired

262 Leda June Stacy White Plains Obstetrician and Gynecologist

263 Joseph Slavit, New York City Chairman Medical League for Socialized Medicine

264 Benjamin Jacobson Buffalo Assistant Instructor in Otolaryngology University of Buffalo

265 G A Newton Freeport General Practitioner and Surgeon

266 Harlow Brooks, New York City Former President, American College of Physicians (Deceased)

267 William Murray Ennis New York City, Surgeon, Kings County and St Peter's Hospitals

268 William S Ladd, Dean New York City Dean and Assistant Professor of Clinical Medicine Cornell University College of Medicine

269 Franklin Plumley Rochester Dermatologist.

270 H G Wahlig, Sea Cliff, Internist

271 George Woolsey New York City Consulting Surgeon, Bellevue and General Hospitals, New York Infirmary for Women and Children

272 Charles A Gordon, New York City Gynecologist and Obstetrician St. Catherine's and Greenpoint Hospitals

ANTI STORK TEA TABLE TOUTS

Sensational charges that touts canvass among women for illegal operations in London were made by a doctor at an Oxford Union debate on birth control

Dr William J O'Donovan, former MP for the Mile End Division of Stepney, consulting physician to the London Hospital and a well-known Harley Street specialist, said

"Wherever in London women collect together, whether at church tea parties, or political meetings, there may be present touts who canvass for illegal operations, and suggest people who would 'do' them

"I have had many women come to me at different times and tell me that they

had been approached by touts at meetings of various kinds," declared Dr O'Donovan

"Women patients have come to me after they have had an illegal operation and I have asked them how they got in touch with the person who performed it

"Their reply has very frequently been that people have approached them when they have been gathered together with other women," the London *News of the World* quotes him as saying

When asked who performed these illegal operations the doctor replied "Midwives who have been struck off the roll It must not be imagined for a moment that I meant that medical men are involved"

SERUM IN PNEUMONIA

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 6—Pneumonia Complicated by Pregnancy and Bacteremia

Report selected from the records of Lewis L. Klostermyer, M D, Warsaw

"A young girl, age eighteen, was admitted to the Wyoming County Community Hospital in a very serious condition on February 9

"The history of the present acute illness dated from the previous day when she developed the classical symptoms of pneumonia of sudden onset — namely, chill, fever, pleurisy, and a rusty appearing sputum. The previous history was relevant inasmuch as she was three and one-half months pregnant and had had severe pyelitis (colon bacillus) for one month before the present illness

"Examination showed a temperature of 102° F, pulse of 140, and respirations of fifty. The patient was prostrated, cyanotic, and appeared critically ill. There was dullness to percussion and distant bronchial breathing at the left base and generalized pulmonary edema

"Sputum examination showed the presence of Type I pneumococci and the blood culture demonstrated the presence of the same organisms

"There was no history of allergic manifestations nor previous serum injection. The intracutaneous and ophthalmic tests for horse serum sensitivity were negative

"Serum treatment with concentrated Type I antipneumococcus serum (New York State Department of Health) was instituted at 4 00 P M on the day of admission. Forty cc (50,000 units) were injected slowly without dilution. Following this, the dyspnea became less pronounced but no other significant improvement was observed. A second dose of 50,000 units was similarly given at 8 00 P M. Four hours later the temperature had fallen to

99°, the pulse to 110. There was very little dyspnea or pleural pain and the pulmonary edema had practically disappeared.

"The convalescent course was complicated by a localized empyema which was surgically drained on the seventh day of illness, and by the persistence of pyelitis and some evidence of toxemia. At the time of this report (six weeks after the onset) the patient is doing well and the pregnancy is continuing in a satisfactory manner"

The specific and life-saving effect of serum treatment in this instance is particularly obvious. Not only was the patient critically ill, almost moribund, but she presented two complicating conditions either of which alone would have made the prognosis extremely poor. First, the presence of bacteremia is always extremely serious. The case-fatality rate for Type I pneumococcus pneumonia with bacteremia, which is not serum treated, has been variously reported but is generally conceded as being between sixty and seventy per cent. Second, pregnancy may also be considered a factor of grave significance, particularly in the latter months. The available data on the effect of pregnancy while not as great in amount as that for bacteremia, is nevertheless sufficiently indicative of its seriousness to place it among the most unfavorable complicating conditions

While it is sometimes stated that serum treatment predisposes to the development of empyema, it is not definitely known at present what influence it actually has. It must be borne in mind that serum treatment serves to save the lives of patients with extensive blood stream invasion or other serious conditions, who would otherwise have died. In any such group, the incidence of localized secondary foci of infection such as empyema might readily be expected to be somewhat higher than in a group from which the more seriously infected cases had all been excluded by an early death

Hospital News

Courts "Crack Down" on Hospital "Sit-Downs"

THE CRASH OF BLACK-JACKS, NIGHT STICKS, axes, crowbars, and an operating table used as a battering ram shattered the quiet of the Brooklyn Jewish Hospital on March 15 as fifty police burst their way into two kitchens and a laundry, where groups of "sit-down" strikers had barricaded themselves. The sit-downers, armed with broomsticks and kitchen utensils, started to battle the officers, but were cowed with drawn pistols. Eighteen strikers and the president of their labor-union local were arrested on a court order charging them with endangering the lives of patients by refusing to work, in violation of section 1910 of the penal law. The strike was called for union recognition and higher wages and the reinstatement of a discharged telephone operator.

Two days later another sit-down strike in the same hospital was staged, but all the strikers left peaceably upon the demand of the hospital authorities and the police except thirty-nine, who were arrested and taken to the station and booked on disorderly conduct charges.

These incidents assume importance in view of the current contagion of sit-down strikes and the efforts of labor leaders to organize hospital workers and present various demands. Two magistrates expressed their opinions on the two Brooklyn strikes, and their views are of interest to all hospitals in the State as perhaps giving a line on the attitude of the courts in such cases.

When the first lot of eighteen strikers and their president were arraigned before Magistrate Mark Rudich in the Flatbush Court on March 16, he held them for trial in Special Sessions under the penal law mentioned above, and said:

There was a clear breach of contract when these defendants refused to serve food. When the interns and nurses had to leave the hospital to get food, they could not be on hand if their services were required quickly.

It is enough if a human life might be endangered. They must be under the same roof to be available. That is why nurses and doctors live in a hospital. These people are just as important to the care of the patients

as the doctors and nurses who take the Hippocratic oath.

The thirty-nine arrested on the 17th also came up before Magistrate Rudich on the 18th. He adjourned the hearing to a later date, and said to them:

You hospital workers are in a different situation from the ordinary employee in a factory or store.

As I construe this section of the penal code it means simply this: If the employment is such that giving it up means that lives might be endangered, you can't quit.

I don't mean by that that the employee is bound to servitude as long as he lives, but I do mean that if he wants to quit he must give notice, reasonable notice as to afford the employers reasonable opportunity to replace him with some one else in order that human lives might not be endangered.

He can't quit on a moment's notice any more than a fireman or a company of firemen can quit while a building is burning.

Further, if you do quit after reasonable notice, you must leave the hospital at once, so that the person who is to replace you may carry on your job. Furthermore, you must not only quit and leave the building at once but you must leave the vicinity at once.

You can't stage a demonstration in front of the hospital as you may perhaps have the right to do in front of a factory or store. The inmates, patients, in an institution must not be disturbed by confusion, turmoil and noise incident to a labor demonstration such as we have become familiar with in recent times.

On March 24, thirty-eight of the thirty-nine were found guilty of disorderly conduct when arraigned before Magistrate David L. Malbin in the Flatbush Court. He sentenced them to thirty days each in the city prison, but suspended sentence pending their good behavior, which he defined as not doing anything to interfere with the routine of the hospital. He said later this included picketing. If the defendants do anything to interfere with the hospital, he warned, they will be rearrested and the jail sentence enforced.

The court also held the thirty-eight for trial in Special Sessions on a charge of violation of Section 1910 of the Penal Law,

which concerns the endangering of life by refusing to work

In his decision, Magistrate Malbin reviewed the testimony and continued

No one denies that labor employed by private enterprise has the right to strike or picket to secure adequate compensation for their services or proper working conditions. A healthy place to work and an honest living wage for the employee are universally approved. However, the method to secure these conditions can and must only be by lawful means.

The attempt in this case to confiscate hospital property by taking possession of any part

thereof when ordered out of the premises clearly is a violation of our law.

The hospital in question earns no profit that it refuses to share with its employees. It is supported by the poor and rich alike, by contributions it receives from the public and part payment for some of its free cases from the City of New York. It gives service to any one regardless of race, creed or color and maintains a free dispensary for those unable to pay for necessary medical service.

Its daily patient census is from 500 to 600, and must necessarily have a great number of cases which are acute and at danger's point. On the day in question they also had seventy newborn babies in the pediatric department.

A Gas Attack that Went Wrong

A SERIES OF VIOLENT NEWSPAPER CRITICISMS raking New York City hospitals conducted by Dr Goldwater's department have had the happy result of bringing down on his head a handsome shower of bouquets. It is a scientific law that action and reaction are equal and opposite, but in this case the reaction in Dr Goldwater's favor has gone far beyond the original onslaught. It is something like a poison-gas attack that is met by a contrary wind and carried back upon the enemy lines.

People who know the hospital situation in New York City have been well aware of the steady, fine, quiet improvement going on in the past three years, but no one was saying anything especially about it. Then came these blasting broadsides in the Hearst papers, and turned out to be exactly what was needed to start everybody saying the good things they had been thinking all the time.

For example, no one could speak with more knowledge and greater authority than Dr Haven Emerson, of Columbia University, Director of the Hospital Survey for New York. His very position would impel him, if things were wrong, to say so. Instead, he declared in a public address on March 2, directly after the attacks appeared.

Probably never in the history of the city has there been so uniform and exceptional a competence of care of the sick in our public hospitals from superintendent to kitchen help, from chief surgeon to the intern riding the ambulance; from director of nurses to the probationer just entering on her training.

It has been our great good fortune that the care of the sick for these past three years of increasing congestion of hospital wards has been in the hands of Dr Goldwater, whose

experience, resourcefulness, integrity, and entire freedom from political pressure or influence have transformed all the city's twenty-four general and special hospitals and their more than fifteen thousand beds from liabilities to assets, from constant causes of justifiable complaint to sources of accumulating gratitude and appreciation alike by patients and their friends.

Everyone may not know that there is a New York City Visiting Committee of the State Charities Aid Association, whose visitors inspect the hospitals regularly and frequently, and report candidly what they find. The president of the committee is Mr Homer Folks, who is so highly thought of in the hospital world that a big tuberculosis sanatorium has been named after him. Well, in the course of a letter to Mayor La Guardia, after the criticisms came out, he wrote

May I take this opportunity, in behalf of the New York City Visiting Committee to again place on record our unqualified admiration and appreciation of the work of your Hospitals Commissioner, Dr S S Goldwater. We speak with intimate knowledge of the day-by-day condition of these institutions over a long period of time.

Our visitors, including several score of volunteers as well as experienced staff members, make frequent visitations to all of the hospitals in the Department. We are, therefore, in a position to know how the needs of the patients are being met—whether the nurses are qualified for their tasks and devoted to the care of their patients, and all the other details which enter into the humane and efficient care of sick persons.

All these visitors report that exceptionally effective plans are being carried out in all the departments of hospital administration, that

long-standing difficulties and shortcomings are being discovered and corrected that wise, long-range plans are being made for the development of hospital facilities in the places and for the purposes for which they are most needed, and that from top to bottom the staff of the Department derives encouragement and devotion from the deep interest on the part of the hospital administration in the humane and scientific provision for the varied needs of the patients

Although much remains to be done in the way of hospital construction, equipment, and staff, it is a simple truth to say that the needs of the sick poor in the public hospitals of this City have never received such intelligent, continuous, and competent attention as they are receiving under your Commissioner of Hospitals

Many similar compliments for the Commissioner might be quoted, but they are unnecessary

The newspaper that made the onslaught picked the time in midwinter when all the hospitals were crowded far beyond capacity with victims of respiratory and other ailments. Cots overflowed into hallways and into any other space available. Nurses and doctors went without food and sleep and had more patients than they could well care for. The ambulances had more calls than they could answer promptly

Splendid! An ideal situation for a muck-raking crusade! Sick people shoved out in the hallways! Disgraceful! Interns and nurses worked to death! Little babies neglected. Dying people have to wait for the ambulance! Et cetera, et cetera. Disgruntled employees and patients were quoted at length as gospel truth

One young woman of the Junior League was swept off her feet and wrote an article headed "Treatment of Aged Sick Called Criminal," which was published with her smiling photograph. The immediate result was a letter to Dr Goldwater from the President of the Junior League apologizing

for and disavowing the article, and another from the Chairman of the Junior League Auxiliary functioning at the City Hospital, Welfare Island, who said

I feel terribly bad that a Junior League girl should have written such an outrageous article

I have never seen anything but kindness and courtesy shown to the patients by the doctors and nurses over a period of five years

As far as crowding is concerned, it is fortunate that there is somewhere for sick people to go

How Dr Goldwater himself feels about it may be seen from a letter to the *STATE JOURNAL*. He writes in part

To the Editor

NEW YORK STATE JOURNAL OF MEDICINE

Shortly after the *Journal* began its series, the City Editor assured me that he would publish my comments. Following the publication of the first two articles, which represented in my opinion a malicious distortion of facts, I commented as promised, but publication of my statement was refused. I have offered to make further statements, but the *Journal* is not hospitable to the idea of correcting its falsifications, distortions, and half-truths

In the meantime, organization after organization, medical and civic, have taken a stand on this matter and have, I hope, made it unnecessary for me to do anything further in regard to it. The malice of the *Journal's* attack seems to be recognized by the other newspapers, not one of whom has paid any attention to the *Journal's* alarm

On the testimony of disinterested observers within and without the Department, I rest my case. I have only one plea to make and that is that decent organizations use their influence to defeat the efforts of politicians to drag the Department back to the position it occupied in the past, where it was the subject of constant interference and degradation in the interest of political partisans

Yours sincerely,

S S GOLDWATER, M D
Commissioner

At the Helm

DR. WILLIAM S BUSH has been elected chief of staff of the Benedictine Hospital of Kingston, succeeding the late Dr Mark O'Meara.

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DR. RAY PALMER BAKER, assistant director of Rensselaer Polytechnic Institute, was re-elected president of the Board of

Directors of the Samaritan Hospital in Troy for his third term at the annual hospital meeting

• • •

AT THE BUSINESS MEETING of the Dobbs Ferry Hospital Mrs N Reynolds Brooks was elected president.

THE WOMAN'S AUXILIARY

The Woman's Auxiliary to the Medical Society of the State of New York cordially invites the wives of all the members of the Medical Society of the State of New York to attend the 2nd Annual Convention to be held in the Hotel Seneca, Rochester, on May 24, 25, 26, 1937 (This Convention will be held simultaneously with the 131st Convention of the State Medical Society in Rochester, New York)

There will be a Hobby Show open Monday from 2 P M-10 P M, Tuesday from 10 A M-10 P M, and Wednesday from 10 A M-2 P M, at which the hobbies of doctors and wives will be exhibited. The interest already displayed in obtaining the exhibits augurs well for an even bigger and better show than the one at last year's Convention, at which over 200 exhibits were shown. It is truly amazing to discover the variety of hobbies to which doctors have turned their attention.

At 11 A M on Monday there will be a meeting of the House of Delegates which all doctors' wives may attend and learn what the Woman's Auxiliary has accomplished during the year.

At 7 P M dinner will be served in the Palm Lounge of the Hotel Seneca. We hope all doctors' wives will attend. It is an excellent opportunity for women from all parts of the state to meet each other socially. A delightful entertainment will be provided.

Tuesday the Rochester women will entertain us at the Oak Hill Country Club (transportation will be provided). A drive to see the city has been arranged by these same gracious hostesses.

Of course you will attend the State Society Banquet at 7 o'clock. That is always a big event. It is the time to introduce the doctors to the Auxiliary members and friends.

Wednesday morning will be the last opportunity to visit the Hobby Show. Don't leave the Convention without spending at least an hour marveling at the doctors' handiworks.

There will be many things of value and interest at this Convention, and we hope you will attend. A Convention is interesting, because it brings out many types of women.

To wit, there is the new delegate who absorbs everything, takes copious notes, gathers souvenirs and pamphlets to take

home and is full of the spirit of the Convention. She will be valuable to her Auxiliary, because she will carry back enthusiasm and purpose.

There is the sophisticated delegate who will attend a few of the sessions, look properly bored, and will take back to her Auxiliary only a few facts and much criticism.

Then there is the dyed-in-the-wool delegate who carries constantly a large note book and many pencils, never misses a meeting, has no time for a chat, or even a powder puff or a cup of tea, she will undoubtedly inform her Auxiliary how a Convention should be conducted.

There are those who believe everything that is said, and those who believe nothing that is not clearly proven—those who pronounce everything 'just perfect,' and those who magnify the failures beyond recognition and are happiest when they find the most flies in the ointment.

Then there are the leaders who wear the mantle of responsibility and are always true to form. For all there will be speeches, reports, introductions, questions, dinners, luncheons—interesting or dull—headaches, tight hats, perhaps shoes too snug for comfort, incomplete quotations, illegible notes, etc—but I believe that out of it all will come as if by a miracle, stronger loyalties, better friendships, and a new impetus for service.

Fate has a strange way of bringing unity and order out of chaos—so come armed with reason, tolerance, and with a keen sense of humor—for you will need every one of these. Be prepared in your admiration of leaders and confidence in your fellow workers, that they are after all but human. Remember that no one has ever been perfect in every virtue. Finally, may I admonish you that your personal disappointment should not in any way impair your loyalty to the Auxiliary itself. The object of the Auxiliary and the service it can render far exceed in value the wishes of any individual or group of individuals.

Therefore let me urge you to plan your engagements so that you may attend this, the 2nd Convention of the Woman's Auxiliary to the Medical Society of the State of New York. I feel certain you will enjoy it immensely.

MRS JOHN L. BAUER, *President*

JAUNDICE

CHAS GORDON HEYD, B A , M D , F A C S , *New York City*
Professor of Surgery, New York Post-Graduate School, Columbia University

Clinical jaundice is a discoloration of the body tissues and of the body fluids by an excess of bilirubin. Descriptions of jaundice occur in our earliest medical literature and clinical jaundice is described by the classical writers of antiquity. As a clinical phenomenon jaundice varies in intensity from a slight subicteroidal tinge to the intense black jaundice or melas icterus found in conditions with complete obstruction of the common duct, such as occur in carcinoma of the head of the pancreas.

Jaundice in a chemical sense is due to an excess of pigment—bilirubin—circulating in the blood system and being deposited in the tissues and giving the yellow coloration to the body fluids. The clinical interpretation of icterus may be initiated by determining the source of bilirubin. With normal and pathological destruction of red blood cells or hemolysis there is derived hemosiderin (an insoluble iron-bearing molecule) and hematin (a soluble molecule). By rearrangement of the atoms in the molecule of hematin there is derived an isomer called bilirubin. An extensive literature representing long and patient research has appeared explaining where this rearrangement of atoms for the production of bilirubin takes place. Bilirubin can be produced from hematin in the liver, the spleen, and the reticulo-endothelial system. Bile salts, however, can only be produced in the liver. It was assumed until recently that all jaundice was produced either by a disturbance of the liver itself or by an obstruction of the bile

ducts. Virchow many years ago indicated, however, that jaundice could occur by the extravasation of blood into the body cavities and predicated a jaundice that arose entirely outside of the liver.

The liver briefly is concerned with the excretion of bile, the metabolism of carbohydrates, the analysis and synthesis of proteins. Bile, largely an excretory product, contains bile pigment—bilirubin, bile salts, cholesterol and small quantities of inorganic material—calcium and bicarbonates.

Van den Bergh assumed that icterus was entirely due to an increase of bilirubin in the serum and upon utilizing the color reaction given by bilirubin with the diazo reagent of Ehrlich, he was able to make the original observation that in some cases of jaundice it was necessary to bring the bilirubin into alcoholic solution before a color reaction could be obtained, while in other cases the adding of the icteric serum directly to the diazo reagent brought about a color reaction. He, therefore, made the very important distinction that in the icteric group there were two distinct kinds of sera: *first*, sera which gave a color reaction at once or immediately upon the addition of diazo reagent directly to the sera, the so-called "prompt or immediate reaction," *second*, sera which gave no color reaction, or only after a long delay on the addition of the diazo reagent directly to the sera, the so-called "delayed reaction." Van den Bergh supposed that a prompt direct reaction was obtained only from a bilirubin that had passed through the poly-

gonal liver cells and had subsequently been absorbed because of obstruction. On the other hand, if the sera gave a delayed reaction he assumed that the bilirubin had been formed independently of the liver cells and in addition had not passed through them. If this thesis be correct then there are two kinds of bilirubin that may cause jaundice. That this contention is supported by clinical facts is evidenced by the following: (1) Bile from the gall-bladder always gives a typical prompt direct reaction—this bile has obviously passed through the liver, (2) bilirubin obtained from the serous fluids, in hemorrhagic effusions in the chest or abdomen, or knee joints, gives the delayed reaction only, or generally not at all. Such a bile pigment has been elaborated independently of the polygonal cells of the liver.

It is the cells of the reticulo-endothelial cell system, and particularly Kupffer's cells in the liver and the reticular cells of the spleen, which are concerned with the breaking down of hemoglobin into bilirubin. Bile pigment, hemosiderin, and fragments of red corpuscles have been seen repeatedly in both these types of cell, but particularly in Kupffer's cells of the liver. It would seem then that splenic tissue, without and within the liver (Kupffer's cells) and not the liver cells *per se* plays a very prominent part in the formation of bile pigment. On the other hand, not the slightest proof has been brought forward to substantiate the hepatocellular formation of bile pigment. Jaundice may then arise theoretically from the obstruction of the outlet of the bile capillaries after the changed bilirubin has passed through the polygonal cells of the liver or it may occur by reason of the fact that the bilirubin has not passed through the polygonal cells but is absorbed by the vascular capillaries or lymphatics of the liver into the general circulation. The former would be the elimination of an altered bilirubin with bile salts and subsequent absorption from obstruction; the second would be the absorption of an unaltered bile pigment and without bile salts. It is this conception of jaundice that explains the two reactions of Van den Bergh's test. It seems possible therefore to predicate inferentially two different

kinds of bilirubin. While these have not been experimentally or clinically demonstrated, the behavior of bilirubin in varied conditions of jaundice allows this assumption. It would seem that there is a normal content of bilirubin that at all times is circulating in the body. A portion of this bilirubin, which we may call Bilirubin A¹ is taken out by the activity of the liver cells and eliminated in the bile. This bilirubin is possibly of no use to the organism and represents a waste product in the process of excretion, for by its concentration or by some slight change in its chemical character, it gives the positive direct reaction of Van den Bergh. The remaining moiety of bilirubin is evidently a useful product conserved by the organism and so is not withdrawn from the blood stream by the liver cells and continues circulating. This type of bilirubin A is dissimilar either in concentration or in slight variation of chemistry from the other and gives ordinarily the indirect reaction of Van den Bergh. It is apparently this type of bilirubin that reaches a large measure of concentration in pathologic hemolysis and gives the distinct bilirubinemia of hemolytic jaundice. The amount of bilirubin in hemolytic jaundice available for action upon by the liver cells is greatly in excess of their capacity and there might be a direct injury to the liver cells by reason of the overcharged bilirubin content. The presence of calculi in hemolytic jaundice in non-inflammatory gall-bladders and ducts would suggest that this element of pleichroma was a factor in their production. The removal of the spleen would obviously limit the degree of pathologic hemolysis and the liver would then be able to excrete its normal quantity of bilirubin. The liver has a threshold for the elimination of bilirubin just as has the kidney. In some cases it allows the elimination of bilirubin in the bile much more readily than in others, and in hemolytic jaundice the threshold is exceedingly high with retention and accumulation of bilirubin in the blood stream. The bilirubin that occurs in frank obstructive jaundice or in disease of the liver cells has a renal threshold of 140,000, whereas the bilirubin that occurs after marked hemolysis and meets its best example in hemolytic

jaundice has a much higher threshold of renal elimination and does not appear in the urine as a bilirubinuria. In fact it may be doubted if in hemolytic jaundice, without some added complication, bilirubin ever passes through the kidney at all.

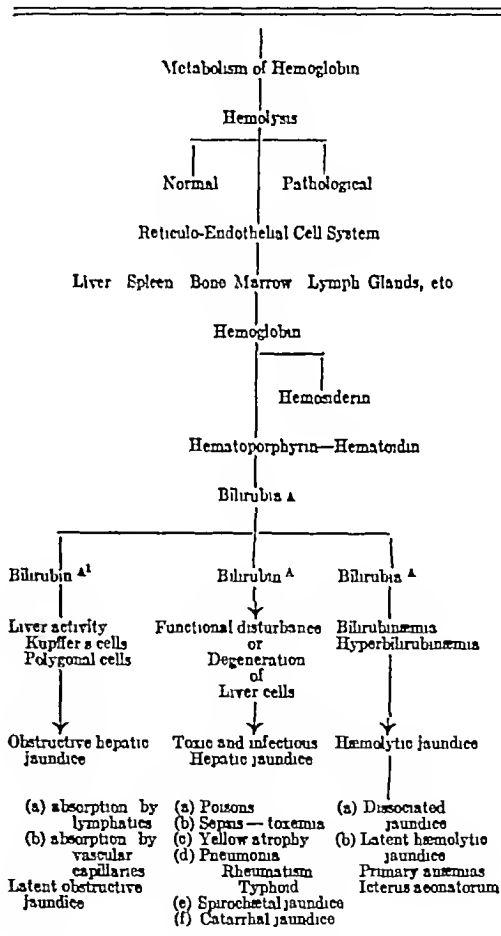
According to McNee we may classify jaundice into three main types (1) obstructive jaundice (2) toxic and infectious hepatic jaundice (3) hemolytic, nonhepatic jaundice (Chart I). Obstructive jaundice presupposes a normal bile formation and a normal mechanism of excretion through apparently normal liver cells. This mechanism does not obtain for any great length of time after obstruction has occurred, for normal bile is no longer secreted nor are the liver cells intact. We may have, however, a jaundice that in the beginning at least is purely obstructive. That the mechanical factor of obstruction does not long obtain is evident for just as soon as the obstruction raises the hydrostatic pressure of the fluid within the ducts to a degree equal to that of the secretory liver pressure there must of necessity be a cessation of flow or even a reversal of direction of the bile current with a functional or intrinsic damage to the liver cells.

A differential diagnosis of jaundice will embrace an analysis of the history, an examination of the gastrointestinal tract, blood, urine, together with a physical examination of the patient, and such additional information as may be given by x-ray studies. Statistical analysis of a large series of cases exhibiting jaundice indicates that according to the frequency jaundice may be classified in the following order—jaundice associated with (1) gall-stones and infection of the extra-hepatic bile ducts (2) catarrhal jaundice—hepatic degeneration (3) cancer of the liver (4) cirrhosis of the liver (5) cancer of the bile ducts or gall-bladder (6) cancer of the pancreas (7) cancer of the stomach. Of outstanding importance is whether the onset of the icterus was associated with pain. So important is the presence or absence of pain with jaundice that most clinicians for ease of diagnostic interpretation speak of "painless jaundice" and "jaundice associated with pain." Pain when it occurs in

patients with jaundice may be of two types

1 Colic—colicky pain comes on suddenly, has a rapid rise to a maximum intensity, is followed by a short free interval from pain, and is so severe as to require anodynes. This type of pain is pre-eminently the type of pain that is associated with calculus, or infectious obstruction of the cystic, hepatic, or common duct.

CHART I—JAUNDICE



2 Distension pain is a dull, heavy, "stretching pain." It is continuous, has none of the colicky or paroxysmal features of the former type of pain, and is associated with the stretching of the capsule of Glisson, from hepatic degeneration, with malignancy or metastatic deposits in the liver. A distended gall-bladder from carcinoma of the head of the pancreas gives the same general type of pain.

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is delivered into the intestinal tract the bilirubin is converted into hydrobilirubin. The latter, by the activity of intestinal bacteria, is changed into stercobilin and urobilin. The urobilin is in a large measure reabsorbed by the intestinal veins of the portal system and delivered to the liver cells. Some of this urobilin is excreted with the bile so that we have a constant urobilin cycle or an entero-enterohepatic circulation. Under normal conditions no urobilin can be determined in the urine. When urobilin reaches one milligram in 100 cubic centimeters, or 1 100,000, it may be detected in the urine by adequate tests. For a normal entero-hepatic circulation it is necessary to have intact liver cells, for in the presence of normal liver cells the urobilin does not get into the systemic circulation. It is obvious that in the presence of complete obstructive jaundice there can be no reabsorption of urobilin from the intestine and hence urobilin will not appear in the urine. If, however, there is an incomplete obstruction which will permit of the delivery of some bile into the intestinal tract, then the presence of any slight degree of functional disturbance of the liver cells will permit urobilin being delivered into the systemic circulation and its subsequent appearance in the urine. If the liver cells are injured, however, with or without obstruction, there is a delivery of urobilin into the systemic circulation. MacMaster and Rous have drawn attention to minute quantities of urobilin that may be found even in the presence of complete obstruction. The mechanism for this presupposes that in conditions of chronic icterus there is an elimination of bilirubin into the intestinal tract by the systemic circulation, and thus bilirubin is changed to urobilin and is reabsorbed by the portal system, and, in the presence of injury to the liver cells, is delivered into the blood stream and later appears in the urine.

Bauer suggested the galactose tolerance test. When galactose is ingested the liver converts it into glycogen and ultimately into dextrose. The kidney has no threshold for galactose and so long as it is circulating in the blood it will be excreted in the urine. If forty grams of galactose are taken by the patient on an empty stomach, the liver readily metab-

olizes it so that less than one gram and rarely more than three grams will appear in the urine in a five hour period. If liver degeneration is present galactose appears in larger amounts in the blood stream and the finding of more than three grams in the urine in a five hour period would suggest liver degeneration.

In obstructive jaundice there is no inability of the liver to metabolize galactose. In late cases of liver disease with edema and hydrohepatosis, the galactose test will indicate liver disability.

Certain information can be derived from x-ray study. Gastrointestinal examinations should be made to eliminate neoplasm and other gastrointestinal pathology. Cholecystograms fail to render any aid in the presence of jaundice. Much diagnostic information may be derived from a complete physical examination. The loss of weight which occurs in jaundice is rapid, but by and of itself is not of much diagnostic significance because loss of weight is characteristic of all jaundice irrespective as to the etiological factor.

The presence, however, of petechia or the development of purpuric spots along the lines of a lightly applied tourniquet is significant of the hemorrhagic tendency in jaundice. Pruritis may be present. Contrary to opinions expressed in the literature, our own experience has been that chronic jaundice due to neoplasm of the liver is not associated with marked pruritis. The most marked cases of pruritis have been those associated with the obstruction due to calculus in the extrahepatic duct system. The presence or absence of ascites suggesting late portal cirrhosis or metastatic malignancy is readily determined. In the absence of ascites the liver edge may be palpated and significant information may be obtained. Not infrequently, bosselated areas or nodular deformities of the liver may be palpated, significant of metastatic carcinoma of the liver. In approximately eighty per cent of the malignancies of the head of the pancreas, a pear-shaped tumor may be felt in the right upper quadrant. This tumor—a distended gall-bladder—increases in size with the jaundice and is the basis of Courvoisier's law.

Stone in the common duct is prepon-

The onset of jaundice with colicky pain is abrupt, dramatic, sudden and the icterus will appear within twenty-four hours. Jaundice that appears painlessly is insidious, continuous, and ordinarily some neighbor or member of the family informs the patient that he has a yellow color. To recapitulate, the development of a jaundice after a dramatic attack of colicky pain presupposes disease of the external biliary apparatus in which calculus and infection are the etiological factors. A slow creeping jaundice without initiatory pain and one which continues to rise in intensity, with the development of aching type of pain sometime after the onset of jaundice is indicative of either a neoplastic compression of the common duct, or the development of some intrinsic pathology of the liver.

In all infectious conditions of the gall-bladder there is a concomitant infection of the common duct and hepatic ducts, and mechanical obstruction, be it calculous or infectious products, is as a rule intermittent and rarely complete for long periods of time. In a malignancy of the head of the pancreas, or of the common duct, the occlusive process is complete and permanent. In hepatic degenerations, which vary from catarrhal jaundice to acute yellow atrophy, there is no change in the lumen of the extra-hepatic ducts sufficient to cause obstruction and therefore an investigation as to the presence or absence of bile in the gastrointestinal tract is of great diagnostic importance. Two methods of investigation may be carried out: one is the daily examination of the stool for the presence or absence of bile, and the other is duodenal drainage for three successive days. A complete absence of bile from the stools or in the duodenal drainage in patients with continuous jaundice would suggest a malignant obstruction of the external biliary duct system. The intermittent presence of bile in the stools or duodenal drainage would suggest that from time to time bile is delivered into the intestinal tract and therefore would suggest inflammatory disease, with or without calculi, of the external biliary duct system or intrinsic disease of the liver.

Certain data may be obtained from blood chemistry. Of outstanding importance is the periodic determination of the

icteric index. Since the liver is concerned with (1) the excretion of bile pigment—bilirubin, (2) carbohydrate metabolism, and (3) the analysis and synthesis of protein, it follows that examination of the chemistry of the blood can be fruitful in suggesting diagnostic differentiation. The icteric index determines the intensity of jaundice. It is the measure of the intensity of the color of the blood serum as compared with a standard solution of 1/10,000 potassium bichromate. Normally the blood serum has three to six times as intense a color as the standard so that the normal icteric index is from three to six. Clinical evidences of jaundice are usually present when the icteric index reaches seventeen. The interval between the normal index of three to six and the clinical evidence of jaundice from seventeen to twenty, is termed latent jaundice. The icteric index then represents a quantitative estimation of icterus but gives no information as to whether the jaundice is obstructive, toxic or hemolytic. It is in short, a measure of the degree of jaundice. However, in obstructive jaundice, the icteric index rises rapidly and maintains itself in a more or less uniform elevation. The icteric index in malignancy of the head of the pancreas is usually from 150 to 250, while the elevation in hepatic degeneration is continuous and has a tendency to rise above 300. The icteric index may be combined with the Van den Bergh but the determination as to whether the reaction is direct or indirect is not of much diagnostic importance.

The liver receives cholesterol from the blood and excretes it as cholesterol and cholesterol esters in the bile. In obstructive jaundice there is an increase of cholesterol in the blood. The normal amount of cholesterol in the blood is from 160–200 mg per 100 c.c. of blood. In liver disease, *per se*, cholesterol has a normal range. In hemolytic jaundice and in pernicious anemia there is a low cholesterol content, while in obstructive jaundice there is a rise in cholesterol content which in a rough way parallels the rise in the icteric index.

In connection with the consideration of jaundice it is interesting to canvass what has been described as the enterohepatic circulation of bile pigments. When bile

CHAOS IN DRUG THERAPY

A Vicious Circle

CHARLES SOLOMON, M D, Brooklyn
*Assistant Clinical Professor of Medicine, Long Island College of Medicine, Chairman of
Subcommittee on Drugs of the Kings County Medical Society*

In Retrospect

The history of man's efforts to cure his ills by using drugs is rather an appalling thing. It is filled with successive triumphs of bland credulity over sound judgment. Time after time both laymen and physicians have ben stampeded, for some mysterious reason, into believing that an individual drug or drug preparation, or a specific class of drugs, had all the characteristics of a panacea.

This has gone on and on and some of our greatest scientists have yielded at times to the call of credulity. A notable instance is that of Pasteur and the magic panvaccine for all diseases in which he led himself to believe. If we look back into the fairly recent history of therapy we shall be chastened by the number of "successful cures" duly reported after what purported to be sufficient clinical trial, which surely could not have been effected, for instance, as the "cure" of rickets with olive-oil.

Looking back much further we come upon the strange and alarming medical traditions of the Arabians and especially of the Nestorians, the latter being a heretic sect exiled from the Byzantine Empire for its religious beliefs. They produced, however, the best physicians of their time, and actually founded schools for medical investigation and research of a sort. They popularized the medical use of drugs such as rhubarb, senna, and tamarind, and they used sugar as a base for many remedies.

But the ancient Arab system of medication was formidable indeed. The Arabs proper were polypharmacists and argued that a remedy must contain a base, the elements necessary for that base the elements which reinforced the activity of that base, and elements which could replace those that might be impure. By 1610 this elaborate system of drug therapy resulted in such descriptive gyrations as the following:

Opium is the base of this electuary, but you will find here other drugs to augment the action, and as these drugs are of bad quality, others were added to correct this fault. Yet this is not all. They heap up enormous quantity of drugs, which are charged with such virtues as to direct the action of some parts of the medicine to the head, others to the lungs, others to the heart, the stomach, the spleen, the kidneys, and other parts of the body. Thus the refreshing and narcotic virtue of opium is increased by the addition of henbane and mandragora bark, while the undesirable qualities of the latter are corrected by myrrh, euphorbia, and castor. Their action is directed to the head by means of cloves, of peony and sage, of aloe and incense, they penetrate the lungs through the action of sulphur, thyme and adroganli, finally, they are directed to the heart by the addition of pearls, *blatta odoratus*, gold, silver, stag's bones, and ivory.

To say that complexity ruled is to be redundant. The pharmacopeia of the day became a complicated compilation of complex, superstitious remedies with high-sounding names such as the adriatansia with thirty-eight ingredients, the zedoary with thirty-five, and the esdrae with forty-three—including rue, parsley, hyssop, calamus, gentian, alder, storax, horehound, cassia, and many others. The reaction came when Bernard and Provincial sought simplification in pharmacy to release the ill from bondage of the omnipotent apothecary. Such reactions towards drug nihilism have occurred again and again because physicians have again and again been too eager to believe in the powerful virtue of drug remedies and to increase their complexity. Sir William Osler referred to the complexity of our modern pharmacopeias as "the heavy hand of the Arabian."

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derantly the result of a previous infection of the gall-bladder and predicates a chronic cholecystitis with cicatrization and contracture. In 187 cases of obstruction of the common duct reported by Courvoisier (from the literature), obstruction was due in one hundred to causes other than stone and in eighty-seven the obstruction was due to calculous impaction. Of the 100 cases in which obstruction was due to causes other than stone, in ninety-two there was a dilatation or distention of the gall-bladder and in eight cases there was a normal gall-bladder or an atrophy of the gall-bladder. Of the eighty-seven cases in which obstruction was due to stone, in seventy cases the gall-bladder was atrophied and in seventeen cases the gall-bladder was dilated. Courvoisier then enunciated his law

In cases of chronic jaundice due to blocking of the common duct, a contraction of the gall-bladder signifies that the obstruction is due to stone, a dilatation of the gall-bladder that the obstruction is due to causes other than stone.

In reporting the cases of the Massachusetts General Hospital, Cabot found eighty-six cases of obstruction of the common duct. Fifty-seven were due to calculous obstruction, in forty-seven the gall-bladder was atrophied, normal in eight, enlarged in two. Twenty-nine cases of obstruction were due to causes other than stone, in twenty-seven the gall-bladder was distended, in one the gall-bladder was empty, and one contracted around calculi. Four cases only of this series were exceptions to Courvoisier's law. With the exception of these four cases, which constituted only five per cent of the total number examined, every record of the Massachusetts General Hospital series in which definite statements are to be found con-

cerning the points at issue goes to confirm Courvoisier's law.

In eighty-four per cent of cases with stone in the common duct we find a contracted gall-bladder. Therefore, a case of obstructive jaundice with (1) history of colic, (2) distinct variations in the intensity of the jaundice (remittent or intermittent)—"ebbs and flows", (3) absence of distention of the gall-bladder, (4) presence of septic reaction—chill, fever, sweat, leukocytosis, (5) continuous or occasional presence of bile in the feces, (6) chronicity—then the diagnosis is almost positively calculous or inflammatory cholangitis.

Summary

Jaundice plus pain plus bile in the stool or duodenal drainage, denotes calculous or infectious obstruction of the external biliary system. Jaundice without pain, and without bile in the stools or duodenal contents indicates carcinoma of the external biliary system. Jaundice without pain, with bile in the stool or duodenal drainage suggests intrinsic pathology of the liver. Hemolytic jaundice, familial jaundice, the jaundice of the anemias, are termed "dissociated jaundice" in that there is an excess of bilirubin in the blood but no retention of bile salts or bile acids and the excretory function of the liver for the delivery of bile into the intestinal tract is normal. Gall-stones, however, may be found at laparotomy in patients with hemolytic jaundice because there is "bile retention" in the intrahepatic bile ducts due to the excess of bile pigments, with an inability of the liver to excrete this excess. Bile thrombi occur in the intrahepatic bile canaliculi and there is a deposition of bile pigments in the gall-bladder with the production of pleiochromic calculi.

116 E. 53 St

The New York State Conference of State, County and City Committees on Tuberculosis and Public Health of the State Charities Aid Association, will be held at the Hotel Roosevelt, New York City, on May 11, 12, and 13. Authorities on tuber-

culosis, syphilis control, and allied problems of public health will take part in the program, together with representatives of the sixty-two County and City organizations affiliated with the State Committee and the National Tuberculosis Association.

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II With a cry he fell Dr King who, unfortunately, happened to be present, bled him with a pocket-knife. Fourteen physicians were quickly in attendance. They bled him more thoroughly, they scarified and cupped him, they shaved and blistered his head, they gave him an emetic, a clyster, and two pills. During the next eight days they "threw in" fifty-seven separate drugs, and, towards the end, a cordial containing forty more. This availing nothing, they tried Goa stone, which was a calculus obtained from a species of Indian goat, and, as a final remedy, the distillate of human skull. In the case report it is recorded that the emetic and the purge worked so mightily well it was a wonder the patient died. One physician did protest that they would kill the king, and out of this arose the suspicion that he had been irregularly poisoned. But he did die, "as peaceable as a lamb", his last words were, "Do not let poor Nellie starve"

Drug therapy went through many changes before it reached the shotgun prescriptions of later days, which were followed by irrational tendencies towards drug nihilism and by the equally unscientific higher homeopathy. In 1860 Dr Oliver Wendell Holmes declared, in an address before the Massachusetts Medical Society, that *in view of the prevailing dependence of the medical profession upon medication*. "If the whole *materia medica, as now used* (italics mine), could be sunk to the bottom of the sea, it would be all the better for mankind—and all the worse for the fishes"

Yet the trend to simplicity did not last. Dr Willard C Stoner wrote² in 1929

Incident to the opening of the new St Luke's Hospital in Cleveland, in December 1927, I became interested in this problem, and, while nothing definite has been done to simplify drug therapy in the hospital, *as taken from our drug books as bromidia and unds* I have _____ drugs and 200 were

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Experiences in the World War represent a striking example of the chaos of drug therapy, where medical men were brought together in practice in great numbers, such as peace-time does not afford. As staff consultant at a base hospital in France, I was brought into intimate contact with a large group of medical men whose training and ideas of therapy were considerably at variance. We were able to demonstrate that the acutely ill can be managed rather satisfactorily with little or no medication aside from cathartics during a period when we were without a supply of drugs in managing a thousand soldiers whose illnesses were largely acute diseases, such as influenza and respiratory infections.

Though the mortality was very high at this time, Dr Stoner evidently means that a more complete supply of drug preparations would have done little or nothing to reduce it.

Modern therapeutic fads, for they cannot otherwise be accurately described, stampede doctors, however, into belief in the special efficacy and incredible healing virtue of this or that drug, or class of drugs, *by turn*. We speak of the ignorance and credulity of laymen yet we ourselves tend to become addicted to soured milks, ultraviolet rays, glandular therapy, urinary and intestinal antiseptics, internal baths, vaccines, serums, and injection treatments, one after the other. *It is time that we stopped to ask ourselves How did this profusion of drug preparations, so many of them being proprietaries, come into existence and how many of these all but numberless preparations are absolutely necessary in sound therapy?*

Impact of Modern Commercialism

The rise of the modern industrial system with its adjunct and business-maker, advertising, gave enormous impetus to the drug business. Whereas rather harmless little individual healing fads had always existed there was now on hand the machinery to transmute these fads into big business. An enormous mechanism now existed to facilitate the dissemination of propaganda.

In its *World Trade Notes* issued in the fall of 1932 the United States Bureau of Foreign and Domestic Commerce reported that proprietary medicines did a

business of \$172,648,000 in 1931, though operations were then eighteen per cent below those of the peak year of 1929. However, the figure was very close to that recorded as the average for the years 1921 to 1929 in the biennial census, \$172,798,000.

Proprietary medical specialties dispensed by physicians' prescriptions made an advance in money value of thirty-two per cent over their average for the years 1921 to 1929, the figure for 1931 being \$52,598,000. On the average a much larger proportion of the proprietary production in 1931 was of "ethical specialties" than in the previous decade. The production of proprietary medicines for the general public was twenty-two per cent less in 1931 than in 1929 and amounted to \$120,050,000.

What sort of medicines were the ethical preparations? The report informs us that for the fourth successive biennial census year, vitamin and glandular preparations had greatly increased in numbers, indicating a trend towards new fashions in healing. Ethical synthetic medical preparations also made a great gain, and more ethical specialties containing narcotic drugs were manufactured than in any year since the World War, though there was a fortunate decrease in narcotic-containing proprietaries sold directly to the general public.

These figures include the output of establishments primarily engaged in the manufacture of patent or proprietary medicines as well as of those engaged in other lines. They cover the medicines sold under the protection of patents, copyrights, or trademarks, or prepared according to secret formulas. Both medicines sold for self-medication and those prescribed by physicians are included.

We have a picture, then, of big business methods geared to the science and art of drug manufacture and therapy. The rise of the profit system was a natural phenomenon in the economic world, but the suspicion arises at times that it might well have been restricted from entering certain fields. The evidence seems increasingly to indicate that the sale of drugs and drug preparations which are used in what may be, for want of a better name, called scientific therapy,

should either operate on a nonprofit, non-competitive basis, or else State price regulation should rule it.

For instance, here is Chauncey D. Leake, Ph.D., discussing "The Pharmacologic Evaluation of New Drugs." He writes:

Intense and undignified commercial rivalry, as well as great interest in synthetic organic chemistry, is continually forcing the clinical use in diagnosis, therapy, or prophylaxis of new substances without a reliable scientific background. Seriously compromising the growth of rational medical practice, such procedures may induce another wave of "therapeutic nihilism." These commercial efforts, however, are too often successful through the operation of rather obvious means: (a) the relative inactivity, and therefore nontoxic effect of various materials, (b) the undetermined *vis medicatrix naturae*, (c) the credulity of too many physicians.

It begins to appear that, while irrational drug therapy might have been a rather sporadic and localized infection under conditions existing fifty years or more ago, when geared to big business methods it becomes pandemic. Leake goes on to say that *very few medicinals today come to clinical trial with proper preliminary study. Commercial methods and national advertising demand that markets be sought quickly whether the remedy is sufficiently tested scientifically or not.* He continues:

It is pathetically unbelievable that many American physicians not only seem unfamiliar with the general program of the Council (A.M.A.), but even seem apathetic towards its efforts in their behalf. Too few use *New and Nonofficial Remedies* as a guide in dispensing. Indeed, too few seem to consult the *Pharmacopoeia*. What is worse, preparations are constantly becoming official which have no scientific justification in medicine—the greatest offense being the admission of substances slightly modified chemically from some well-recognized and official agent, without satisfactory evidence that such modification has improved the therapeutic index (ratio of efficiency to toxicity). The exploitation of these unessential modifications at outrageous prices smacks of silvering a penny to pass for a dime.

The picture emerges of what happens when modern commercialism methods are applied to the manufacture and sale of

drug preparations for profit in a strictly competitive economic system. Yet pharmacy should be a profession at least quite as dignified and quite as removed from the direct channels of profit competition as is the practice of medicine at its best. To demonstrate that this is not a mere whim or bias of the author a little more evidence may not go amiss.

Exploitation of Proprietaries

W. A. Puckner, Ph.D., and Paul Nicholas Leech, Ph.D., writing on "The Introduction of New Drugs"⁴ adumbrated the vicious circle to which the present author wishes to call more direct attention. In the old days, say these authors, commercial firms searched the therapeutic indexes of dispensaries for drugs said to be "indicated" for certain conditions, combined a number of them in a shotgun remedy, saying (as we saw the Arabians did)—"Each component might add to the beneficent action of the other"—thought up a catchy name, and were ready for business.

A great deal of that sort of thing went on in earlier days. Unfortunately it still goes on! Obliging physicians also, then as now, presented firms with ready-made combinations which were said to have worked magic in rheumatism, gonorrhea, asthma, syphilis, or other diseases. Liberal advertising was invoked, medical journals receiving large slices of the advertising appropriation which protected the firm against unfavorable comment on the product by those who might send in papers declaring it inefficacious.

Today the same sort of thing goes on more subtly, as Puckner and Leech show. "In the case of a number of these products the investigators do not know with what they are working because the manufacturer himself does not know what he has. In the hurry of pharmaceutical dealers to be of service to the profession, products of various degrees of composition and activity are being rushed on the market." Possibly the most popular type of proprietary of the day is evolved by adding together two well-known drugs in fixed proportions, heating them till they melt, and presenting the resultant mechanical mixture as a new substance.

A hypnotic and an analgesic make a familiar combination. Yet why combine them at all? Puckner and Leech continue.

To the chemist, it would appear more scientific to prescribe the hypnotic and analgesic in the respective doses indicated, rather than to accept the manufacturer's statement that the preparations are definite chemical compounds, which they are not. Even if they were compounds, the criticism would be just as apropos, because in the digestive tract they would break up into the original two compounds.

The pharmacist is compelled to load his shelves with numerous preparations of dubious value, or with a wide variety of preparations of about equal quality and the same therapeutic intent. No wonder Ernest T. Taborelli, Ph.D., referred to the proprietary or patent medicine as Public Enemy No. 1 in a letter to *Practice Druggist* (July 1933). He denounced the so-called "brand-curse" wholeheartedly, though he admitted that druggists had backed up manufacturers in making customers believe that particular brands of milk of magnesia, epsom salts, or sodium bicarbonate were unequivocally the best.

Advertising serves the same end both for general and for ethical proprietaries. Davis and Sharpe, discussing urinary antiseptics,⁵ brought this out with fine indignation. Their article had a section carrying the caption "Commercialism in the Drug Trade" in which they discoursed on the discrepancies between advertising claims and clinical results. Some of this material deserves quotation in support of the present author's thesis.

Big business, geared to overproduction and handicapped by competition and by the high cost of maintaining elaborate organization, is dependent for its very existence on efficient, nation-wide distribution and sales volume. Hence the necessity for high pressure salesmanship and extensive advertising programs, and the reason for advertising claims which tend to become both extravagant and fanciful, and which may be not only untrue, but obviously so. Any one who reads modern newspapers and magazines is familiar with the type of fanciful advertising claims which lead the reader to wonder whether the advertiser is mentally unbalanced, or whether he (the advertiser) thinks that the public is mentally unbalanced.

The purpose of this comment, however, is to direct attention to the fact that this tendency is making itself evident in the legitimate drug trade, where it is not so humorous as, for instance, in the cigaret trade. *Full-page advertisements in ten colors on heavy paper in leading medical journals do not establish the clinical value of any given pharmaceutical agent* (Italics mine) Nor is therapeutic efficiency increased by fancy wrappings. A drug either has properties whereby it accomplishes (in a certain measure) the purpose for which it is recommended, or it has not. Regardless of the display of scientific investigation made by the various drug corporations, the truth remains that the chief interest of the drug trade lies in manufacturing and distribution, and that research, at best, is to be regarded merely as a means to an end.

How, then, should the physician be guided? Should he gain his postgraduate training from samples, booklets, blotters, testimonials, detail men, colored advertisements, published clinical impressions, or by the results of carefully controlled laboratory investigation? Can he secure guidance of the last-named sort even if he wants it? Is the physician safe today, even if he seeks to follow recognized authorities and to restrict himself to the use of official preparations? Not always, we shall see, when so many inferior preparations somehow manage to crawl in among the best official society.

At one time it might have been said truly that rapid diffusion of knowledge about the effectiveness of a drug could be accepted as a criterion of its definite utility. This is so no longer, as Dr V. E. Henderson has brought out.

As a result of laboratory studies Macht of Johns Hopkins was led to recommend the use of benzyl benzoate for the relief of spasm in smooth muscle. Yet examination of his original data reveals that the concentrations he used on experimental animals were far in excess of those recommended for patients. There was never very strong clinical evidence for the drug's value. But "owing to the active propaganda of pharmaceutical houses, most physicians have employed it." Yet the drug had little if any therapeutic value, hence the physician should be slow to take advertising evidence as proof of clinical merit.

"A new drug which is passing through the stage of having a market built up

for it by advertising (italics mine) seems to possess more therapeutic merit, and yet the advertising often seems to outrun the therapeutic claims made by its discoverer." Such was the case with hexylresorcinol (Caprokol), according to Henderson. Vedder Leonard, who introduced the drug in 1924, made very modest claims for it. But manufacturers and advertisers widely advised its use for unselected cases of urinary tract infection in most of which it could have little if any usefulness.

Results of Propaganda

The impact of modern business methods upon drug therapy has obviously been unfortunate. Man has sufficient faith in the impossible as things are. His tendency to imagine that he has secured definitely planned results by the use of irrational methods is active enough in any case. When, however, his credulity is played upon by subtle advertising psychology, and when the drug industry is so organized that ruthless profit competition occurs, the results are disastrous not only to medical therapy but to pharmacy, to nursing, and to the teaching of pharmacology and related sciences.

Writing in 1930,⁷ Dean Ernest E. Irons of Rush Medical College advised the Congress on Medical Education and Hospitals to cut the costs of hospitalization by using standard drugs instead of proprietaries, saying "The shelves of some hospital pharmacies remind one of the exhibits of proprietary medicines in a chain-drug-soda-fountain-lunch-room." Patients continue the use of proprietary drugs, buying by name, long after they leave the hospital and Irons cites the case of serious injury as a result. Most trademarked brands, he said, simply comply with U. S. P. standards and are not better, they are only costlier. The existence of so many brands of the same drug causes stock duplication and ties up several times as much money in pharmaceuticals as is really necessary.

Another angle is supplied by the *International Medical Digest* of March 1930 in an article deploring the decline of the art of prescribing. "Few there are who come in contact daily with interns in our recognized hospitals who will not admit that these young men are altogether in-

capable of writing a satisfactory prescription for a patient." Patients expect excess medication, if anything. Doctors have either gone fanatic in drug skepticism or else follow manufacturers' statements too slavishly. Study of *materia medica* and official preparations is neglected, according to this authority.

Similar views were expressed by Dr Charles W. Edmunds, speaking on "Pharmacology and the Medical Schools" in 1930.⁸ Pharmacology, said Edmunds, is taught in most medical schools combined with physiology, biological chemistry, or biochemistry, the professor represents the extra burden, does a poor job, and research is sterile in about a third of the schools. In many schools the teaching is itself most unsatisfactory and graduates tend rather to rely upon proprietary remedies or else to be therapeutic nihilists.

Other students, however, like their professors alas, "are very prone to use any drug, serums, or concoction or mixture that a pharmaceutical house puts out." Manufacturers, in turn, continually send physicians letters suggesting that they refer their medical problems to the manufacturer's medical staff, and too many doctors yield to the suggestion. The doctor selects remedies from the flood of medical advertising literature—most of it entirely outside the scope of the American Medical Association Council—and thus "takes his graduate training in therapeutics."

Chaos in drug therapy builds upon the carelessness, the incompetence, and the overwork of physicians who will not or cannot take time to investigate thoroughly. This is not said to be harsh nor sensational, it is a matter-of-fact statement of self-evident truth. Consider, if you will, the wide variety of prescriptions on file in pharmacies that have been written for the amelioration of a condition like pneumonia, influenza, or the common cold. It almost seems as if no two doctors would apply the same drug therapy or can induce themselves to believe in the value of the same preparation from the same manufacturer.

How Doctors Are Misled

What taught them that? Certainly

not the science of pharmacology. It must then have been manufacturers' propaganda of one sort or another. Of these prescriptions the vast majority are for some stock proprietary. If, however, the prescription is individualized it is all too often written incorrectly, as a careful reading of drug and pharmaceutical journals, where druggists air their complaints against ignorance of physicians in prescribing, will disclose.

This same ignorance is disclosed quite as shockingly by the persistent use, or by the abuse, of useless or misapplied drugs. A writer⁹ in 1932 called attention to the fact that sarsaparilla was not rejected by the British *Pharmacopoeia* until 1914, though it had been known to be valueless a hundred years before. In 1870 Great Britain spent \$250,000 on this useless drug, sufficient to maintain, build, and equip a fair-sized therapeutic institute!

One might write an entire treatise on the abuse of ergot in its multifarious preparations. For a long time the alkaloids ergotoxine and ergotamine were supposed to account for the full oxytocic activity of ergot preparations. It was only in 1932 that Moir produced evidence to show that crude extracts of ergot were more powerful than either alkaloid, hence a new and unidentified principle was the main source of activity of this much abused and misapplied drug. Finally this substance was purified and could be studied scientifically.

Yet for years American physicians used aqueous extracts of ergot which had no potency, or other extracts which rapidly lost their activity. For it was only four or five years ago that Marvin R. Thompson, then of the Food and Drug Administration, did the first fundamental work on the preparation and keeping quality of ergot fluid extracts. But the abuse of the drug continues on the part of physicians who have an unwarranted faith in it.

Mere paucity of authentic scientific knowledge does little to discourage the competitive manufacturer in his struggle for profit. As Dr Maurice E. Shaw wrote in 1936:¹⁰

We often marvel at the credulity of our patients, but the truth is that we are almost unbelievably credulous ourselves. This

weakness is quite naturally exploited by manufacturers of drugs and therapeutic products who have enough acquaintance with psychology to know that we shall be impressed by the presentation of a remedy in pseudo-scientific language.

Dr Shaw continues that advertisements assure doctors that the ultimate proof rests in clinical trial. Pharmacology texts are replete with the accounts of the action of drugs upon experimental animals, in dosages never used on human beings! "There follows a spate of testimonials from doctors of varying degrees of eminence (judging from their academic qualifications) all joining in a monotonous pean of praise based, as a rule, upon a single case in which the remedy has been tried." Failures are not mentioned—and so the game goes merrily on.

If science is asked, for instance, "Is there recognized any drug which, if taken by mouth, constitutes an intestinal antiseptic?" the answer is an unqualified "No." Nothing is known which will kill all the micro-organisms in the living intestine. But there are plenty of so-called intestinal antiseptics advertised and on the market. *Shall the doctor believe science or advertising?*

If science is asked a similar question about urinary antiseptics the answer is "A study of the literature shows that the reputation of most urinary antiseptics is founded upon a rather empirical use or upon unsound scientific principles." The ideal antiseptics of this sort must be rapidly absorbed and excreted and must have absolutely no irritant action on the intestinal or urinary tract, the liver or the kidneys. There just is no such drug. But the market is full of widely advertised urinary antiseptics which sell on the *post hoc, ergo propter hoc* fallacy.

Davis and Sharpe⁵ tell about eight physicians who met and commented upon the rascality and advertising hyperbole involved in the manufacture and sale of urinary antiseptics. Yet nearly every doctor felt complete confidence in some one such preparation or drug, though there were also representatives of the opinion that none of them should be trusted. The mere drinking of water, and plenty of it, seemed to constitute the best urinary "antiseptic" available, according to them.

A summary statement seems in order here and it is taken bodily from Henderson's address on "New Drugs, Their Use and Abuse," to which reference has already been made.⁶

These few examples illustrate sufficiently clearly certain points in regard to drugs: (1) That a remedy definitely curative with specific indications will become very rapidly known to all reading physicians. (2) That where there are definite indications for a drug, e.g., novasurol in severe edema, success may be attained in its use if employed wisely and with caution and a realization of its limitations and dangers, even if its mode of action is not known. (3) That certain highly specific drugs will be useful to the specialist or even to the practitioner who makes a careful study of the drugs themselves. (4) That the vast majority of drugs recommended by advertisement are of little or no value and that a physician employing thoughtfully and accurately the drugs of the *Pharmacopeia* can do more for his patients than by listening to the specious pleadings of the detail man who should be instantly dismissed by any physician, who is trying to serve his patient, with the same abruptness as that with which Eve should have dismissed the serpent. (5) That at times there are drugs of relatively low efficiency which long experience will show to be of value, e.g., carbromal or argyrol, but that our knowledge of their value can only be built up by the physician's careful study of them, and the cases in which they are useful, and recording the same for the benefit of others, and further, that unless he is willing to undertake such study he had better wait for others to do so. (6) That no physician should recommend drugs to patients by name and so encourage their use by lay patients so as to lead to their abuse by the public and an increase in unattended sickness.

A Vicious Circle

What results? A vicious circle. In late 1932 plans began to be made for the forthcoming *Pharmacopeia* recently issued. The aid of physicians was asked. What should the final list of products be? More than 10,000 prescriptions were studied. It was discovered, for instance, that calcium glycerophosphate had been used in seven of them, indicating that some physicians still did not know that claims for its "tonic" effect were unfounded.

However, elaterium was used only once, indicating that other purgatives had become more fashionable. Guaiacol carbonate appeared about twenty-nine times, yet there is *no evidence that it represents guaiacol*. Jalap was passing out as was also the old idol of the eclectics, lobelia, which appeared but eleven times. The use of croton oil was in decline. Many drugs and compounds could be deleted but as many new ones had appeared. The errors of today were to be discarded to make room for the "truths" that will be recognized as errors tomorrow. So fashions in drugs change and, more important, *their apparent therapeutic power changes with the fashions*.

Cumulative evidence has now been presented in sufficient abundance vividly to portray an existing condition that is more than unfortunate. It is an actual menace to drug therapy. Not only is the use of drugs chaotic, but the condition portrayed resolves itself into a vicious circle which operates to perpetuate and to exacerbate the evil. Here the doctor has a definite responsibility that he must meet before it is too late.

Doctors are favorably impressed with commercial propaganda far too easily for their own and for their patients' good. They are convinced by the sales talk of detail men and by the stuff they read in beautiful advertising monographs and circulars. They fall into the use of proprietaries and, since these doctors are in any case—whether officially or not—teachers of the less experienced, the proprietaries they use become more familiar to their nurses and their junior associates than official preparations.

The chaotic prescribing of proprietaries is especially disastrous in hospital practice for this reason. The repercussions are endless. Other doctors of the future, nurses, and laymen as well, all become maleducated. Meanwhile the study of materia medica becomes increasingly difficult, for no mention is made in serious textbooks of these multifarious fly-by-night products of commerce. The student nurse or the medical student is at a loss to correlate the scientific use of drugs as expounded in the classroom and in the texts with the constant administration of proprietaries in the clinics and wards of the hospital and in general practice.

Nurses are often far better acquainted with proprietary preparations than with the standard materia medica. The careless use of trade names by doctors fixes in young, formative minds words like urotropin, pyramidon, atophan, luminal, and veronal, while the official names—methenamine, aminopyrine, cinchophen, phenobarbital, and barbital—are neglected or forgotten. Meanwhile the promiscuous use of proprietary preparations defeats the purposes of medicine in so far as these are truly scientific. For many of these preparations are of secret composition, while many others are pharmaceutical shotguns, forms of medication all serious teachers of materia medica seek to dis courage.

Surveys have frequently shown that at times almost forty per cent of all drugs prescribed in certain hospitals are not mentioned in any standard textbooks of materia medica. Naturally even the teachers themselves soon begin to feel that the texts are inadequate for pupil needs. The authors of the texts, on the other hand, feel that such criticism is wholly unjust because the class of preparations sold as proprietaries has no proper place in scientific therapy. In any case it would take a thousand-page book of loose-leaf character, to facilitate constant, almost daily, revision with numberless supplements, to treat the proprietaries as they pop up hourly and demand attention. Such a book would then be a mere catalogue and would lose all influence as a proper instrument of class instruction.

All doctors, especially those on hospital staffs, should regard themselves as teachers and should take this obligation seriously. Student nurses and medical students should be taught in the best possible way, not confused and maleducated, and not misguided by the irrational and unscientific use of proprietaries by their mentors. As Cushny said¹¹

For as long as he (the medical student) has to learn the supposed virtues of a host of obscure substances, he will tend to use them in practice, even if only tentatively. This in turn necessitates their inclusion in the pharmacopeias, which again gives them some standing and perpetuates them as subjects of teaching and examination. If examiners would break this vicious circle, they would render the subject of pharmacology more attractive to him. There is

no question that the insistence on numberless preparations of drugs of questionable value has discouraged interest in therapeutics

The thought can be carried further, and it applies with great force to the instruction of both nurse and medical students. Since the *United States Pharmacopeia* and the *National Formulary* include many preparations of questionable value and usefulness, the authors of textbooks feel that these must be mentioned and described. Teachers, finding these descriptions in respectable and authoritative texts, naturally lecture upon them. The students then consider these drugs demonstrably useful. Did not the teacher mention them with evident respect? As they graduate they go forth in turn to prescribe these preparations which, again in turn, gives them such standing that they must be mentioned and their standard preparations described in the *United States Pharmacopeia* and the *National Formulary*.

Some State examiners, like those of New York, still confine themselves heroically to the important preparations in the State Board examinations for nurses and doctors. Due credit must be given them, for they face a very considerable impetus toward less scientific procedure, and how long will it be before they give way? Physicians must bestir themselves about this matter and realize its urgent importance if conditions are to be bettered.

What Is the Remedy?

Other auxiliary remedies suggest themselves. While the competitive profit system arose naturally in this country as in many others, and while the author has no brief whatever against it *per se*, it does seem that we might find some guidance in the procedure of certain other capitalistic countries which remove such social necessities from competitive commerce. Without directly aping the procedure of any one of these countries it is rather easy to formulate a hypothetical system that it might be advantageous to adopt.

For instance, there might be truly professional and scientific apothecary shops or pharmacies as distinguished from what we may call drug stores, which latter could still sell common remedies,

safe for self-medication, and related products for profit in the usual manner. The professional pharmacies might be located by the State or Federal governments where they were needed in view of geographic and population considerations. Apothecaries might be guaranteed a fixed income, it being considered that they rendered a valuable social service if they operated in communities financially unable wholly to sustain them.

The manufacture and sale of drugs and drug preparations might conceivably be under some such government regulation as is the manufacture and sale of veterinary vaccines and serums in this country today. A truly scientific board, composed of physicians, pharmacists, and related professional men, might pass upon the formulas and conditions of manufacture of all drugs and drug preparations to be used in ethical practice. All such medicaments would be sold nonsecretly, as exactly what they were, on a basis of composition, and under their official names, fixed margins of profit being permitted at each stage of the process—to the manufacturer, the wholesaler or distributor, and to the ultimate apothecary dispenser.

In other words, ethical drug remedies would be removed from the sphere of active profit competition, but would be sold on a state-regulated cost-plus plan under the most scientific supervision that could be provided. Duplication, the advertising and sale of superfluous special brands, the production of useless or irrational preparations, the use of fantastic trade names, and the prescribing of secret mixtures could all thus be controlled adequately. On the other hand, it is almost too much to ask that a group of competitive manufacturers clean house voluntarily, for each fears that the other will put something over.

These ideas may, however, be regarded rather as suggestions than as a complete program the adoption of which is advocated by the author. The chaotic use of proprietaries and the vicious circle which operates to bring unworthy compounds into respectable standing does, however, offer a serious problem. Present conditions are a disgrace to physicians, pharmacy and drug manufacturing are degraded, and student nurses and medical

students are confused That patients suffer goes without saying What is worse we harm not only this generation, but we do untold potential harm to future generations We must realize the real seriousness of this problem and we must proceed to apply a remedy

It is the professional duty of the teachers of therapeutics and materia medica in the seventy-eight recognized class A medical schools of the United States to solve this problem They must break the vicious circle For, if but seventy-eight teachers were alert, courageous, and resolute, the circle could be broken forever At very least the next generation of physicians would be equipped to cope intelli-

gently with the proprietary evil For they would receive scientific training in clinical therapeutics and in prescription writing, not mere experimental and theoretical training They would know how properly to evaluate drugs They would not be misled by tradenames nor seduced by fancy advertising Aided by the teachers of materia medica in nurses' training schools, the professor of therapeutics in the medical schools proper could dislodge forever the "heavy hand of the Arabian," and render drug therapy a true science instead of the mere adjunct to commercial propaganda it fast tends to become

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References

- 1 MacPhail, Sir Andrew *British Medical Journal* March 18, 1933
- 2 Stoner, Willard C. *J.A.M.A.* 93 1630, 1929
- 3 Leake, Chauncey D. *Ibid.* 93 1632, 1929
- 4 Puckner, W. A. and Leech, Paul Nicholas *Ibid.* 93 1627, 1929
- 5 Davis, Edwin and Sharpe, J. C. *Ibid.* 99 2097, 1932
- 6 Henderson, V. E. *Canadian Med. Asso. Jour.* 16 1077, 1926
- 7 Irons, Ernest E. *Amer. Jour. of Pharmacy*, p. 173, March 1930, *J.A.M.A.*, 94 1277, 1930
- 8 Edmunds, Charles W. *J.A.M.A.*, 95 383, 1930
- 9 Gunn, J. A. *British Medical Journal*, p. 389, August 27, 1932
- 10 Shaw, Maurice E. *Ibid.* March 14, 1936
- 11 Cushny, Arthur R. *A Textbook of Pharmacology and Therapeutics*, Preface to Sixth Edition, Lea and Febiger, Philadelphia and New York, 1915

TRACKING DOWN FRAUD IS A HARD JOB

The new Special Committee on Illegal Practice of Medicine of the Medical Society of the County of New York has a hard job before it. Created to protect public and profession against illicit healing practices, it will have to pursue its enormous task against heavy odds, remarks the *New York Medical Week*. As the Secretary of the Committee has pointed out, unlawful medical acts are always associated with fraud and deceit, and their perpetrators will not hesitate to employ the same means to continue in business.

These prospects do not daunt the Committee. With the cooperation of the profession it hopes to drive out a good portion of the illegal practitioners who are victimizing the people's health and purse.

The Committee has enumerated twelve flagrant forms of outlaw practice which should be curbed. These are

- 1 Diagnosis, treatment, prescribing and dispensing by druggists and their clerks
- 2 The illegal practice of medicine by chiropractors, chiroprodists and podiatrists
- 3 The illegal practice of medicine by foreign groups, such as "Chinese healers," Polish barbers, etc.

- 4 The practice of dermatology in beauty parlors
- 5 The practice of physiotherapy in bathing establishments without medical supervision.
- 6 The diagnosis of disease by physiotherapists
- 7 Corporate medicine as practiced by utility groups and department stores
- 8 The treatment of diseases of the eye by opticians
- 9 Prescribing and diagnosing by psychologists and lay psychoanalysts
- 10 Diagnosis and treatment by naturopaths and food faddists
- 11 The practice of medicine by reducing groups and clinics
- 12 The performance of eye examinations by motor vehicle inspectors

An important preliminary to actual warfare against illegal practitioners is the accumulation of detailed data concerning them. Any physician who encounters unlawful medical activity, whether it be over-the-counter prescribing by druggists, the treatment of eye diseases by opticians or any other of the offenses listed above, should promptly report it to the Committee on Illegal Practice.

CARCINOMA OF THE COLON

D PHILIP MACGUIRE, A B, M D, F A C S, *New York City*

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Carcinoma ranks fourth in frequency among the organic lesions of the large intestine. Approximately seventy per cent of them, occurring in the large intestine, are due to carcinoma. About sixty-six per cent of these malignancies are found in the sigmoidrectal segments. The other amenable areas are the cecal, hepatic, and splenic flexures, and the middle segment of the transverse colon.

For many years, the large bowel has been anatomically divided into the right, the transverse, the left colon, sigmoid and rectal segments. However for practical purposes, surgeons have bi-partitioned the large bowel into the right and left divisions, which differ in development and function. The right section, up to the middle of the transverse colon, is a continuation of that portion of the primitive intestinal tube known as the midgut. Whereas, the left originates at the primitive hindgut. Because of its great absorptive nature, the right segment resembles that portion of the small intestine with which it develops. The left has a different blood supply, is smaller, more contracted, and serves as a storage medium.

Irregularities—mucous diarrhea or alternate periods of diarrhea and constipation, associated with bleeding—are the earlier manifestations. Case histories usually record intermittent staining by mild or severe hemorrhage of an average six months' duration prior to medical examination.

In large metropolitan areas, fully fifty per cent of these cases may be classified as inoperable from the standpoint of radical surgery. Rural districts report an even higher percentage of this inoperable group. This is true, primarily, because the growth is so extensive and firmly entrenched, including the neighboring metastases. Secondly, due to the fact

that the toxemia, so to speak, has devitalized the patient to such an extent, radical surgery cannot be considered. Included in this group are the long-standing carcinomas of the right colon with marked secondary anemia due to the low hemoglobin content. Thirdly, conditions may be discovered, such as diabetes which may be further complicated by nephritis, serious cardiac diseases or other equally grave affections. A small percentage of these complicated cases can be considered operable only after prolonged treatment.

Whenever possible, biopsies of the growths are essential in the operable cases. Should the clinician suspect a malignancy, repeated biopsies are imperative and the growth classified according to the Broder system. Fortunately, most of the colon carcinomas consist of the lower grades, characterized by a gradual development.

Common Fallacies

When clinically in doubt, it is advisable to obtain the results of repeated biopsy specimens rather than accept conclusively, the pathologist's report of the first one. A common fallacy is to regard the invasion of a neighboring viscus by a growth with trepidation, since it may be merely of an inflammatory rather than a malignant nature which may readily be relieved by resections.

Another prevalent misconception is relative to the small type of tumor that evokes a ring-like constriction which is frequently discernible on inspection of the left colon. It appears, on first inspection, that its removal will be easily accomplished. However, these tumors are frequently accompanied by the most serious metastases remote or otherwise.

Preoperative Procedures

The haphazard method, relative to the

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admittance of colon carcinoma cases for operation the following day, has been discontinued and the preoperative preparation of these patients has been considerably improved. Acute obstruction constitutes the most serious involvement. The mere suspicion of the presence of a colon malignancy should impel the attending physician to immediately prescribe a high caloric fluid diet. This serious complication has a predilection for the left and transverse colon and occurs in about five per cent of these cases. This condition is particularly menacing since the physiological and chemical imbalance has reached such a degree that there exists a marked acidosis, alkalosis, high creatinine, high uric acid urea, and nonprotein nitrogen. In the remaining ninety-five per cent of these cases, chronic obstruction is still a potential if not an actual complication.

Consequently, the oral administration of barium, as a contrast medium, may result disastrously in questionable obstructive cases and its use is open to conjecture.

Should the clinician not know the full extent of the obstruction, the author believes that the barium enemas and gastrointestinal series should be withheld. The inadvisable roentgen examination of these cases, utilizing a contrast medium, is comparable to the immediate x-ray diagnosis for confirmation on suspected cranial fractures a few years ago. These methods not only endangered the patient's life, but frequently turned a propitious case into one of doubtful issue.

Proper bowel clearance, following the administration of the contrast medium, often inconveniences the clinicians and nurses and also hampers the contemplated operative procedures. Even though the blood chemistry determinations may be fairly high, this condition may advisably be best alleviated by utilizing the open cecostomy operative procedure. This operative step is usually not too severe on these patients, and the benefits derived from proper drainage by the insertion of a Paul's tube and applying suction, may be comparable to that obtained from the preliminary gall-bladder drainage in obstructive jaundice cases.

Massive blood transfusions are recommended for improvement of the patient's

general condition. This applies to the palliative as well as the nonpalliative cases, and is also applicable in even severe kidney dysfunction. Phlebotomists from the Moscow municipal hospitals supercede surgeons of other countries notably by the introduction of canned blood, primarily obtained from favorable subjects soon after death which accounts for their numerous brilliant results obtained in massive applications. An increase in uric acid, urea, and nonprotein nitrogen in intra-abdominal carcinomas was most aptly demonstrated by Killian and Kast of our hospital staff in 1918. This serious increase in the blood chemistry determinations, occurring in many colon malignancies, and its relationship to severe dehydration with resultant acidosis and alkalosis, has influenced many surgeons to give increased quantities of fluids when these determinations are very high. The average hematologist will more than likely agree that a twenty-five per cent increase of urea, uric acid, nonprotein nitrogen, and creatinine indicates a serious kidney dysfunction. Prompt action should be instituted to reduce these complications.

Coller and Maddock¹ conclude from their observations that a six per cent loss of body fluids signifies the pathogenesis of a serious dehydration. This implies that the inclusion of greater quantities of fluids is a paramount consideration if it is expected to circumvent the dire, resultant sequelae. The greatest possible benefit can be derived by the oral administration of forced fluids. Should these cases have an impairment of the deglutitive functions, the constant duodenal drip of tap water, advocated by McCarthy and his coworkers of our hospital staff, has shown excellent results. This method consists of the oral introduction of tap water and five per cent glucose solutions given intravenously and subcutaneously. The hematologist's report on the findings (each morning) must be the criteria for the amount of liquid intake. The lax methods used for the introduction of fluids in these toxic cases during the past few years have been very unsatisfactory.

A further misconception is that saline solutions should only be given in cases having a chloride deficiency. In patients

having a blood chemistry determination indicating a severe toxicity, the usual routine method of introducing from one to two thousand c.c. of fluids daily, is worthless

Another deterrent is the failure on the part of the attending physician to order repeated blood cultures to determine the presence of such a serious complication that would contraindicate radical operative procedures

Palliative Procedures

There are two types of surgery applied to the intestine, namely the palliative and the radical operative procedures

About half the number who are unsuitable subjects for radical operation, are in the terminal stages of the carcinoma, characterized by widespread metastases and extreme lassitude whether or not accompanied by some coexistent chronic disease. These cases have palpably received no treatment for their carcinomatous condition. Another small group of cases was treated by x-ray therapy, radium or electrocoagulation, the majority being unsuitable for radical operation owing to one or more of the following reasons: (a) local extension of the carcinoma to the viscera, adjoining the rectum, (b) direct infiltration of the bladder, uterus, broad ligaments, vagina, or prostate, or (c) infiltration of the peritoneum of the pelvic floor, rectal vesicle and vaginal fistulae. It is impracticable to consider performing a radical operation when there is an involvement extending to the liver, the inguinal glands, and the bony framework of the pelvis or spine.

Palliative procedures are advisable for patients averaging from sixty-five to seventy years of age, since the radical operation, at times, produces grave consequences. However, English surgeons have given favorable reports concerning cases exceeding seventy years of age. Only palliative procedures should be used for patients having hypertension in cardiovascular disorders. The palliative operation recommended, is the inguinal colostomy with preference for the author's technic.

The methods of radical operative procedure for carcinoma in the rectosigmoid area are logically divided into those de-

scribed before and after 1920. The earlier operative technic mainly consisted of dividing the bowel, bringing the proximal end out as a single bowel colostomy, suturing the distal, open end, and burying it beneath the pelvic peritoneal floor.

Since 1920, three operative procedures have been extensively used, two introduced in this country, viz., the Rankin and Lahey technic, and that of Mummery in England. Although the Babcock and Coffey technic has many advocates, one can scarcely classify the Mummery operation as a radical procedure, due to the fact that the only intra-abdominal step is the fashioning of a colostomy. Nevertheless, Jones,² one of the greatest authorities of his kind in this country, recommends this operative procedure for inexperienced surgeons. The technic, consisting of a combined abdominoperineal resection of the rectum discussed by Rankin,³ comprises dividing the sigmoid between clamps, bringing out the proximal end as a single bowel colostomy opening, closing the opening on the distal end and, then, dropping it back into the abdominal cavity. The second stage is an abdominoperineal resection of the terminal sigmoid and rectum. In 1930, Lahey utilized the same type of procedure, but kept the distal sigmoid open and employed irrigations for this part of the bowel. The second step was the same as Rankin's, viz., the abdominoperineal resection.

The modification of Rankin's technic, as described in 1929, is a more difficult procedure to apply in obese patients, and Rankin objected to this method principally because division of the bowel would be attended by an increased hazard should obstruction be present, and, in the event that this complication were not present to a marked degree, the rectum could be just as satisfactorily irrigated by a two-way tube.⁴

In 1908, Miles described a method of performing an abdominoperineal excision for carcinoma of the rectum and the terminal portion of the pelvic colon which has since become a classic.⁵

In practically all the operative procedures described before 1920 and up to the present time, for carcinomas in the sigmoidrectal area, is included a division of the bowel, performed intraperitoneally

which palpably invites the dreaded complication of peritonitis. To circumvent the possibility of postoperative pneumonia, as a secondary complication, it is essential to administer spinal anesthesia, using either spinocaine, neocaine, novocain, pantocaine, or a mixture of neocaine and pantocaine. It should be strongly emphasized when patients complain concerning the insufficiency of the spinal anesthesia, the advisability for the postponement of the operative procedure until a later date, when another mixture of spinal anesthesia may be used.

Conclusions

The author's method for the removal of malignancies, in the sigmoidrectal area, is the only aseptic surgical procedure that he has seen described to date. Since the first step in these operative procedures consists of cutting across the bowel intraperitoneally, which may result fatally, this method should especially appeal to the younger surgeon. This procedure should also appeal to those surgeons who, like the author, have experienced the loss of patients during this preliminary step owing to an involvement in the peritonitis. These two menacing complications—peritonitis and postoperative pneumonia—are combatted by this aseptic technic accompanied by the induction of spinal anesthesia.

The main objection to the preliminary step of cecostomy is the loss of fluid. However, by taking daily blood chemistry determinations, this can be properly gauged and replaced by sufficient fluid or blood transfusions. A preliminary cecostomy presents many advantages, one of

the most salient being that the incision for the second step is made on a clean surgical field. The open cecostomy method also permits the operator to palpate the entire colon. Should multiple growths exist or a distant metastases accompany a minute neoplasm, this knowledge is invaluable for estimating the remainder of the second step. Specific importance is attached to the palpation disclosing a malignant invasion of the spleno-mesentery group of glands, which invariably indicates a very poor prognosis.

An open cecostomy is a definite safeguard since the actual fashioning of a single bowel colostomy is more complex than the theoretical description of this procedure implies.

The author firmly believes that the following adjuncts to the performance of an operation are more thorough than other methods, and should therefore be considered of corresponding importance, viz., the before-mentioned aseptic for minimizing the danger of peritonitis, the use of spinal anesthesia to avoid the appearance of postoperative pneumonia complications, and the generous introduction of a sufficient quantity of fluids and blood transfusions to counteract dehydration which is calculated by daily blood chemistry determinations, in order to conserve the strength of the patient.

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References

- 1 Coller, F A and Maddock, W G *Ann Surg.* 102 947, 1935
- 2 Jones, Daniel Fiske, (a) Refer to reference No 3 (b) Coller F A. and Ransom, H K *Ann Surg.* 104 636 1936
- 3 Rankin, F W, *Surg., Gynec & Obst.* 59 410, 1934
- 4 Rankin F W *Ann Surg.* 104 628, 1936
- 5 Miles, W E *Lancet* 2 1812 1908

THE GIFT OF LIFE IS NOT ENOUGH

"It is not enough for a mother to have carried her child in her bosom, to have nourished it at her breast, an even heavier responsibility awaits her—that of rearing her babe and forming its character. For the successful performance of this mission, maternal devotion and solicitude are not sufficient, it demands a knowledge of the laws of physical and moral health, of the factors that make for racial strength and continuity.

"Thus apphes not only to mothers but to fathers as well, for upon them falls a very large share of responsibility for the future well-being of rising generations.

"The vitality of a child, as well as his physical and moral development, depend to a very great extent on environment and on the care bestowed upon him in his early years. Without health, life cannot flower and thrive"—Prince Carl of Sweden, *President of the Swedish Red Cross*

ADENOMA, ADENOCARCINOMA OF THE ADRENALS

Based on a Series of 34 Cases

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There is very general agreement among authors that adenoma of the suprarenal cortex is an uncommon finding. The experience of Gibson¹ is frequently cited. Examining the records of 46,000 admissions at the University of California Hospital (July 1913-March 1926), he found but nine recorded as having a diagnosis of adrenal tumor confirmed.

Burke,² of the New York State Institute for Malignant Diseases, considering autopsy findings upon 371 cases, found forty-nine subjects who showed malignant metastasis of the adrenal glands, but only two where there was an adenoma primary to the gland.

Geschickter,³ while stating that primary tumors of the suprarenal tissues are "not common," goes on to say that the most frequent tumors of the suprarenal cortex are the benign cortical adenomata, which are incidental findings at autopsy and rarely give clinical indication of their presence. He found carcinomata of the suprarenal cortex to be "much rarer," but, when encountered, they can usually be identified by clinical manifestations affecting the secondary sexual characteristics of the patient.

Some writers believe that benign cortical adenomata "are present in nearly one third of all cases examined at autopsy, regardless of age, sex or cause of death," but Geschickter's experience, and that of the other writers cited above, does not agree with this view.

Since there seems to be so much confusion and disagreement concerning many features of neoplastic growths in the adrenals, the publication of the present series of adrenal neoplasm is justified, as it is only by the amassing of considerable clinical evidence that we may hope to reach sound and rational inferences.

Pathological Anatomy

The tumors were readily recognized because of the prominent projecting masses, yellow to red in color. Some had areas of hemorrhage and softening either in the tumor or surrounding it. They were usually single but commonly appeared bilateral. In none of the cases was there definite capsule formation.

Microscopically, the distinguishing characteristic of the adenoma was the cortical cell structure with a variable stroma of small capillary vessels and connecting tissue. The epithelial cells were larger and showed a greater tendency toward hyperchromasia and fatty changes. The cells, in some places showed luminal arrangements and in others there was a tendency toward papillary formations but with the same type of large, clear, granular, fatty cell. Pigment formations were not observed.

It is mentioned by Grollman⁴ that, although frequently manifesting all the signs of normal functional activity, the adenomata are sometimes found at operation or autopsy to be "in varying stages of lipoidal degeneration."

Symptoms

Many adenomata of the adrenals are quite symptomless, their existence being discovered only when the patient has died of some unrelated cause or because of some secondary manifestation not referred to the adrenals during life. This was illustrated by our seven nonmalignant cases, in no one of which was the presence of adrenal adenoma suspected before death.

Many similar instances are to be found in the literature. In most of these cases, however, symptoms insufficient to permit the establishment of a diagnosis will be

correlated to the conditions revealed at necropsy. Data are still lacking to enable us to evaluate properly these "silent" cases. Despite the extensive research and study which has been devoted to the adrenal glands during the past quarter century, there yet remains a wide field for investigation.

Two members of the Medical Faculty at Lille, France, Langeron and Lohéac,⁵ recognizing the necessity of more reports upon the clinical manifestations of tumors of the suprarenal capsule, established the following classification by which the different symptom-complexes may be recognized:

- 1 Tumors producing an endocrine syndrome.
- 2 Tumors of "abdominal" type.
- 3 Metastatic tumors
- 4 Tumors accompanied by arterial hypertension

In reviewing the literature, these authors were particularly impressed by the large preponderance of bilateral cases reported. For this they offer two explanations. Either the close proximity of the two glands and the intimate relation of their blood and nerve supply bring about simultaneous activity in the production of a typical cell structure, or the neoplastic growth being established in the gland, the other is so quickly involved because of the same close relationship that examination when the condition is far advanced—practically always the case—fails to disclose which one was the first attacked.

The clinical evidences of tumors of the first group may be (a) suprarenal insufficiency, or (b) the genitocortical syndrome of suprarenal virilism, i.e., obesity, sexual precocity in both sexes, and in females appearance of masculine secondary sex characteristics, hirsutism, etc. A striking case of the second type due to malignancy of the adrenal was reported by Feinblatt⁶ in 1926.

In the second group as classified by Langeron and Lohéac, the symptoms are those common to abdominal tumors of all types, due to pressure and displacement of adjacent viscera. They include lumbar pain, radiating upward and increased by palpation, lumbar tumor simulating renal or hepatic cyst, and other pressure symp-

toms, according to the size and site of the adrenal growth.

The third group—metastatic tumors—gives infinitely varied symptoms, according to location. Most common are those to the orbit, producing the "black eye" which is often the first indication in small children, to the brain, which give evidence of cranial hypertension, or vascular obstruction, producing symptoms depending upon location.

The fourth group, comprising those tumors of the adrenals which manifest their presence by arterial hypertension, is regarded as the most interesting, although as yet the least understood type. In this last class can be placed most of the "silent" adrenal growths, such as the seven cases presented in the series occasioning the publication of this paper.

Grollman,⁴ however, opposes this theory of the hypertensive effect of adrenal tumors. He asserts that it has been repeatedly shown that there is no increase in the epinephrin content of the blood in such cases. It was because of the fact that epinephrin, when injected, produces so marked a pressor effect that many investigators inclined to believe that essential hypertension might be due to over-activity of the adrenal medulla.

Of the seven cases, only one showed hypertension. We could not attribute the hypertension as due to the adenoma.

However, a comparison of the pituitary and adrenal syndromes was made recently by Lescher and A. H. T. Robb-Smith,⁷ who reached the conclusion that even when adenoma of the adrenal cortex can be demonstrated, hypertension is more likely to be due to pathological activity of the basophile cells of the pituitary.

A case wherein adenoma of the adrenal cortex simulated pituitary basophilism was reported in 1935 by Calder and Porro.⁸ "This case was thought clinically to be an instance of pituitary basophilism (Cushing's syndrome), but at autopsy a large primary adrenal neoplasm was found, and the hypophysis was normal." Similar reports have been made by Kepler and others.⁹

Statistics on Thirty-Four Cases of Adrenal Neoplasia

This report is based upon thirty-four

cases Twenty of these growths were adenocarcinoma, primary to the gland, seven were metastatic, the adrenal growth being secondary to carcinoma elsewhere in the body, the remaining seven adrenal adenomata were autopsy observations, in none of which the presence of the adrenal tumor had been suspected during life. Of the primary adenocarcinoma, the diagnosis was established by autopsy in nineteen cases, and by biopsy in connection with surgery in one case. The seven subjects of metastatic involvement of the adrenals were all recognized at autopsy only.

Race In none of the cases was there a family history giving a clue to hereditary tendency. The group included Italian, Norwegian, Polish, and American ancestry. All were white, and although Negroes constitute a large percentage of our hospital admissions, we have never observed adrenal tumor in any member of this race.

Age In the primary adenocarcinoma the average age was forty-five, the youngest subject being two years old and the oldest seventy-two. In the metastatic cases the average was fifty-five years, the oldest sixty-two and the youngest forty. Of the seven cases of benign adenoma, the average age was sixty-one years, the oldest being seventy-five and the youngest forty-two.

Sex Our experience coincides with that of other writers that sex seems to have no influence on the occurrence of these neoplasms. In our series males were in the majority, there being fifteen males and five females among the cases of primary adenocarcinoma, six males and one female among the metastatic cases, and four males and three females among the nonmalignant cases. The type of tumor which produces the corticogenital syndrome appears more frequently in females. The patients seen at the Mayo Clinic by Walters, Kepler, and their co-workers⁹ were all women and girls. Calder and Porro's⁸ patient had formerly been a trained nurse. Lescher's⁷ patient was also a woman. Feinblatt's⁶ case reported in 1926 was in a female physician.

Blood pressure In view of the discussed relation between "essential" hyper-

tension and adrenal disease, the blood pressure records of all patients should be studied with care. In our series of twenty adenocarcinomata the blood pressure ranged from 100 to 170 systolic and from 50 to 100 diastolic, while the metastatic cases ranged from 112 to 170 systolic and 50 to 90 diastolic. In the subjects whose adenomata were found only at autopsy the range was from 84 to 276 systolic and from 54 to 126 diastolic. The numbers are too small to permit the drawing of any sound inferences other than that there was no consistent evidence that tumors of the adrenals gave any consistent change in the blood pressure.

Clinical and laboratory findings Neither urinalysis nor blood chemistry yielded any significant findings. Hemoglobin in the primary adenocarcinoma cases was from forty to ninety per cent, in the metastatic cases, from sixty to eighty per cent. There was but one positive Wassermann reaction, which occurred in one of the metastatic cases.

Pain This was a prominent feature in nearly all cases—in the "silent" adenomata, there was chest pain in two cases, back pain in one. In nineteen of the twenty malignancies pain was complained of—chest pain in five, leg pain in three, abdominal pain in seven, left shoulder pain in two, back pain in one, pain on the right side, in one. In the metastatic growths pain was recorded for six out of seven cases—abdominal pain in three, back pain in two, leg pain in one, pain in left shoulder in one.

Other symptoms Not one case of the series presented anything which could be called a typical "suprarenocortical" syndrome. Headache was present in six cases, cough with hemoptysis in seven, without hemoptysis in three, nausea and vomiting in six; loss of weight and strength in fourteen, paresis in two, convulsions in four, and various scattered instances of visual disturbance, personality change, difficulty in urination, etc. But one instance of pigmentation was observed—in a primary adenocarcinoma patient. Hirsutism was seen in but a single female patient, and in her case there was a complicating cyst of the pituitary gland.

Location of growth On autopsy, eleven

of the cases of primary malignancy four of the metastatic cases and three of the seven cases of benign adenomata showed involvement of both adrenals. Of the remaining fifteen patients, six showed the growth in the left adrenal and nine in the right. In one case adenocarcinoma was present in the left adrenal and the right gland was found to be the site of a tuberculous focus.

Metastasis Of the twenty primary cases of adenocarcinoma included in this series, in nineteen autopsies and one operation, metastasis was observed in all but one, wherein the malignant growth had an associated tuberculosis of the opposite gland. Nearly every organ in the body would be included in the list of the locations of these secondary deposits. In the cases where the adrenals were secondarily invaded from an original focus elsewhere located, the source is recorded as the liver, the spleen, the brain, the lungs, and the lymph nodes. In some instances the original focus could not be determined accurately.

Summary

A correlation is made of the history,

clinical symptoms, and autopsy findings in thirty-four cases of new growth of the adrenals. In twenty instances, the tumor was primary, in seven, the new growth was metastatic in origin and secondary, in seven cases, the tumors were benign adenomata.

Not one of these cases presented the typical "suprarenocortical" syndrome which has been described in recent periodical literature. The finding of an associated tuberculosis of the opposite adrenal in one of the primary malignancies is unusual. In recognition of the prevalent trend of association between adrenal disease and "essential" hypertension, the blood pressure records were carefully noted. They showed wide variation.

The diagnostic difficulties presented by these adrenal growths were emphasized by many cases in this series. It is the authors' hope that others will be stimulated to record their own experiences, so that much more material may be made available for study.

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References

- 1 Gibson T E *J Urol* 18 33, 1927
- 2 Burke, E M *Am J Cancer*, 20 338, 1934
- 3 Geschickter, C *Arch Path*, 15 775, 1933
- 4 Grollman, Arthur *The Adrenals*, Williams & Wilkins Co., Baltimore, 1936
- 5 Langeron, L. and Loheac, P *Ann de méd*, 24 249 1928
- 6 Feinblatt, H M *Arch of Int Med*, 38 469, 1926
- 7 Lescher F G and Robb Smith, A. H T *Quart J Med News Series*, 4 23, January, 1935
- 8 Calder, R. M and Porro, F W *Bull Johns Hopkins Hosp*, 57 99, 1935
- 9 Kepler, E. J, et al *Proc Staff Meet, Mayo Clinic*, 9 169, 1934

MEDICINE FOR THE SOUL

Physicians and ministers are in the best position to help those who in the midst of defeats and tragedies have lost faith, hope, and courage. Back of the patient's fear is something that has destroyed his courage. Back of the fatigue, the exertion, the tremors, the palpitating heart lie the de-

stroyers of faith and hope. It behooves the physicians, therefore, to find them. In many instances those symptoms are but a cry for sympathy and understanding and the remedy is one of restoring faith, hope and courage—*Pennsylvania Medical Journal*

AMERICAN HEART ASSOCIATION

The Thirteenth Scientific Sessions of the American Heart Association will be held on June 7 and 8, from 9 30 A M to 5 30 P M in the Viking Room, Hotel Haddon

Hall, Atlantic City. On June 7, the program of the Section for the Study of the Peripheral Circulation will be given, the general heart program on June 8.

CHRONIC ALKALINE ENCRUSTED CYSTITIS

Cure of Case with Contraction of Bladder by Vitamin A Regime and Indwelling Catheter

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A young woman of twenty-two years, presented herself on June 21, 1934, complaining of marked urinary frequency, nocturia, urgency, tenesmus, and terminal dribbling, extending over a period of three years. About every thirty minutes, both day and night, she voided small amounts of dirty dark brown urine and wore vulva pads to avoid soiling her clothes. She practically spent all her time near a bathroom and was forced to give up her occupation. Her past history was irrelevant except for an important clue, in that she restricted her diet chiefly to cereals, spaghetti, bread, soups, and starchy desserts in the hope of relieving her distressing symptoms. During this period she was hospitalized on three occasions and had submitted to various urological examinations and local treatments without obtaining relief.

Physical examination revealed a young woman weighing 110 lbs, rather haggard from loss of sleep, but disclosed no objective symptoms in any other part of her body. Abdominal and loin palpation revealed no masses or localized tenderness. The voided urine was dark, dirty brown with heavy brownish sediment. On analysis it was strongly ammoniacal and alkaline, showed a specific gravity of 1.028, marked trace of albumin, few hyaline casts, scattered pus cells, and an abundance of red blood cells (4+) and ammonium urates (4+). X-ray of the urinary tract revealed no calcareous shadows, etc. The bladder capacity was but one ounce. She was extremely sensitive to cystoscopy. No bladder landmarks could be visualized because of massive, diffuse, brownish incrustations throughout the bladder. The ureter orifices were seen only after an intravenous injection of indigo carmine which revealed good function from both kidneys. Intravenous excretion urography films disclosed normal kidney and ureter outlines and a small round infantile-size bladder (Fig 1-3). A diagnosis was made of chronic alkaline encrusted cystitis with secondary contraction of the bladder.

Two very simple and rational principles of treatment were advised and instituted: (1) Vitamin A was given together with a balanced acid ash diet plus the addition of ammonium chloride to acidify the urine, (2) An indwelling catheter was inserted for the double purpose of giving complete physiological rest to the irritated bladder and urethra and of gradually dilating the contracted bladder with an acid solution.

1 Vitamin A regime together with acidification of the urine undoubtedly played the greatest role in the cure of the alkaline encrusted cystitis. What prompted the use of Vitamin A regime and acid drug therapy? It is well to briefly review the modern conception of the causes of urinary calculi before answering the hypothetical question. During the past decade experimental and statistical studies on the subject of urinary lithiasis have been made by various workers. Neither climate nor the character of the drinking water have any influence on stone formation. The causes for the formation of many calculi are still unknown. This much is known that when certain colloidal changes occur in the urine, the salt most in excess deposits in crystalline form by precipitation. The nucleus of such a calculus is an agglomeration of crystals in a urinary colloid. Primary stone formation in an aseptic urine is due to colloidal precipitation. Secondary stone formation is favored by infection, especially in the presence of either congenital or acquired obstruction of any part of the urinary tract. It is generally believed that uric acid calculi result from faulty body metabolism. Some years ago Rosenow and Meiser in animal experiments, demonstrated that infection from septic foci arising from infected teeth or bone inflammation produces calculus by an excess of calcium elimination. In the past few years calculus disease has been observed in the bed-ridden suffering from fractured femurs, osteitis fibrosa, bone tuberculosis, chronic osteomyelitis, and other severe bone diseases as well as chronic empyemas. In these types of cases two factors are held accountable for calculus formation: (a) prolonged immobilization, and (b) a change

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in the calcium metabolism which releases an increased amount of calcium into the blood stream and urine. Observers from Boston hospitals report that they have dissolved such newly formed calculi by vitamin A therapy. Similar calcium disturbances have also been recently brought to our attention in parathyroid disease.

That urinary lithiasis in many instances is a deficiency disease is borne out by Jolly's interesting observations that calculus is most commonly encountered in districts where the general hygienic conditions are poor and where the dietary is mainly derived from cereals, *whereas stone formation is infrequent in dairy farming districts.* The large-

also of other mucous membranes. Wide spread metaplasia and infection throughout the body have been repeatedly demonstrated when vitamin A is lacking in the food of experimental animals. In the epithelial linings of the urinary passages keratinization most commonly occurs, this favors both colloidal precipitation of urinary salts and local infection. Pyelitis and cystitis are reported as sequelae from this deficiency.

The modern approach to the whole subject of urinary lithiasis consists not only in the removal of stones by surgical or non-surgical means but it is also necessary to study the patient's metabolism and to est-



Fig 1 Intravenous urogram showing small bladder in twenty-two year old female. (Chronic encrusted cystitis). The normal size of the adult bladder by cystogram examination is about the size of a large orange.



Fig 2 Intravenous urogram showing size of bladder in two year old child.

est stone centers are in Central Russia, India, China, and Mesopotamia. It has been further shown that the incidence of calculus is lessened in these regions, especially in children, when a mixed diet containing the protective vitamin food stuffs is substituted and when the general hygienic surroundings are improved. In 1926, Fajernacki conducted a series of animal experiments in which he demonstrated the formation of calculus in the kidney, bladder, and gall-bladder when the animals were given a diet deficient in vitamin A. He was able to dissolve these stones by the addition of milk, butter, and cod-liver oil. Recently C. C. Higgins observed that vitamin A deficiency in experimental animals produces strong alkalinity of the urine. From these and other observations the hypothesis is advanced that there is a close relationship between an adequate supply of vitamin A and the healthy state of the mucous membranes not only of the urinary tract but

mate the blood uric acid, serum calcium, phosphorus, etc. After a stone passes out or is removed, its composition is determined by analysis. Careful study should also be made of the reaction or hydrogen ion content (pH) of the urine, a urinary alkalinity of (pH) 6.8 is necessary for acid stones and a pH of 5.2 acidity is necessary to prevent the precipitation of alkaline salts. It is also important to eradicate or reduce to a minimum any local or focal infections and to prevent urinary stasis in the kidney pelvis and bladder by appropriate treatment of congenital or acquired obstructive uropathies.

The chief sources for vitamin A are cod liver oil and the so-called protective food stuffs derived from plant materials. In these foods vitamin A is present in the form of carotene which is transformed into vitamin A when taken into the body. Normal digestion and absorption of fats are essential for the utilization of this food factor. Foods containing vitamin A are milk, cream, butter, cheese, egg yolks, liver, fresh vegetables and fruits.

In the case described herein several urine analyses, both before she consulted me and before I began treatment, showed a strongly ammoniacal alkaline urine loaded with ammonium urates. These repeated urinary findings make it reasonable to assume that even before the onset of her symptoms a disturbed body metabolism resulted in the precipitation of uric acid salts. Eventually, because she subsisted on a deficient diet, strong alkalization set in. This together with colloidal changes in the urine most likely account for the massive encrustations of ammonium urates. *Vitamin A was therefore utilized to overcome deficiency of an inadequate diet and because of its specific effect on the epithelial lining of the urinary bladder.*

On admission to the hospital, June 30, she was placed on a balanced acid ash diet, consisting of all dairy foods, fresh fruits, fruit juices, fresh vegetables, whole wheat bread, yolks of egg, chicken, beef, veal, liver, fish, and forced fluids. Cod-liver oil capsules were administered four times daily. Condiments and seasoning were eliminated. Enteric capsules of ammonium chloride grains twenty were given four times daily to acidify the urine. *Four days after admission the urine draining by way of the indwelling catheter was clear and acid in reaction. It has remained acid and clear ever since. Ammonium chloride medication was discontinued after nine weeks. She has remained on a balanced diet and cod-liver oil.*

The clinical course in this case strikingly supports the experimental work and observations referred to above, namely, that calcareous formation in the urinary tract may be caused by a diet deficient in protective vitamins and that calcareous concretions resulting from such a diet may be dissolved by one rich in vitamin A. The interior of this contracted bladder was practically a small plaster cast mould, whose capacity was only one ounce. The strong vitamin A diet together with the acidifying drug apparently dissolved the alkaline encrustations clinging to the mucosa of the bladder. As the encrustations became completely dissolved, the normal elasticity readily increased. The increase in bladder capacity from thirty to two hundred c.c. reveals the latent elasticity of a hollow muscular viscus, whose interior was firmly bound down and contracted over a long period of time by the encrusted cystitis.

2 A self-retaining mushroom catheter #22 French scale was inserted. This automatically did away with voluntary urination so that the irritated bladder and

urethra were completely put at rest. At two hour intervals very gentle bladder irrigations were given. Irrigations were begun with one ounce of one-quarter per cent phosphoric acid solution. The nurse was instructed to inject the solution very slowly and to stop when the patient complained of discomfort or pain. Each day, if possible, the amount of injected fluid was increased and a record kept of the increasing tolerated amounts. Five days after admission fifty c.c. of fluid were easily injected and at the end of two weeks when the catheter was withdrawn seventy-five c.c. were injected without discomfort. She was kept in the hospital four additional days for the continuation of

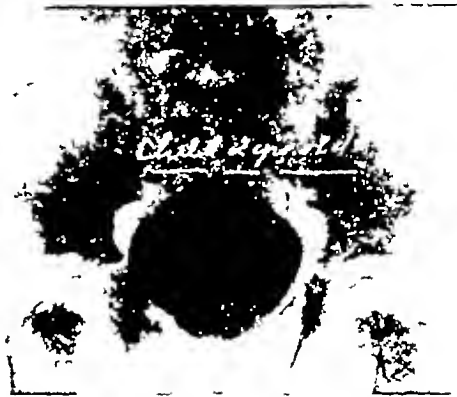


Fig 3 Retrograde cystogram, two year old child

bladder lavages and dilatations. She now voided every two hours during the day and three to four times during the night and was free of tenesmus—as contrasted with the distressing urinary symptoms which had persisted for three years. She gained twelve pounds, her lassitude was replaced by a feeling of well-being, and she evidenced a new interest in life. Relief of subjective symptoms and general improvement are readily explained by the fact that she no longer was harassed by a constant urinary urge, because for the first time in three years she caught up on much-needed sleep and was able to digest and absorb large quantities of a well-balanced diet.

When discharged, she was instructed to keep up the bladder dilatations for a few additional months. At first she reported twice a week for six week period and gradually the intervals were prolonged to once in eleven days and finally about every four to six weeks. One month after discharge from the hospital she voided every two hours by day, two to three times by night, the urine was acid and clear and

eighty-five c.c. of solution were slowly injected and tolerated. In fifty days her bladder capacity increased to one hundred c.c., in sixty-two days it was one hundred and fifty c.c. and in eighty-five days the bladder tolerated two hundred c.c. She now voided every three hours by day and two times per night. Eighty-five days after she left the hospital the bladder capacity was about six times greater than it had been during a three year period. At this time cystoscopy revealed a normal appearing bladder, entirely free of any incrustations. She resumed her usual occupation as a factory worker. She married in April 1935, and thirteen months later went through a normal delivery. During her entire period of pregnancy she remained free of urinary symptoms.

Conclusions

1 A case of chronic alkaline encrusted cystitis with secondary contraction of the bladder was cured by two very simple

principles (a) Vitamin A regime with acidification of the urine undoubtedly played the greatest role, (b) The indwelling catheter gave physiologic rest to the irritated bladder and urethra and permitted frequent bladder lavages and gradual bladder dilatations.

2 The clinical result in this case, probably the first on record, strikingly supports experimental work and observations that calcareous formations in the urinary tract may be caused by a diet deficient in protective vitamin A and that such calcareous concretions may in turn be dissolved by a diet rich in vitamin A.

3 No definite conclusions can be reached from one case report. Further use of this kind of therapy in similar cases will definitely evaluate the relationship of vitamin A deficiency to urinary calculi.

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SECRET REMEDIES

Since the dawn of medicine there have been secret, alleged "cures" for cancer and other diseases. The literature on the subject is enormous. Many remedies that have been sold for decades are still used even though no scientific evidence that will stand analysis has ever been presented to substantiate the claims of the manufacturers. Recently a young physician approached a member of the staff of a world recognized research institute and asked him to cooperate in trying out such a remedy. The request was denied, for *the remedy was a secret one*.

Ever since the medical profession has had a formal or even informal code of ethics, secret remedies have been frowned upon. At the present time most recognized medical societies distinctly forbid the use of such remedies by members. Most laymen, and even some physicians, cannot understand what is wrong with their use, which he demands that the patient understands the situation. The patient understands the situation, bladder when the ank of being repetitious and, deficient in vitamin. *Journal of Medicine*, stating the case against dissolve these stones, as it has already milk, butter, and cod-liver, leaders of medicine, C Higgins observed that below in an efficiency in experimental animal of secret remedies, strong alkalinity of the urine. by those that and other observations the hypothesis, conduct in vanced that there is a close relationship between an adequate supply of vitamin A and the healthy state of the mucous membranes not only of the urinary tract but

one man asks another to try his secret remedy, he is asking him to trust him not to put any poisons into the material and to keep the formula unchanged from one lot to another. On the other hand he is not trusting him with any important information as to his product. The trust is there for entirely one-sided and not mutual. An honest man cannot ask this much of another man. Even the law, which many physicians and scientists think is a somewhat backward code, has recognized for centuries that a contract to be valid cannot be entirely one-sided. A person arguing for the use of such secret remedies might ask, "How about the trust between doctor and patient even when no secret remedy is used, is not the trust that the patient must put in the doctor's knowledge and skill always one-sided?" It is not. The patient must often trust the doctor in matters that he cannot understand, but in return the doctor trusts the patient to repay him for his services either in money or otherwise as the case may be.

A person with an investigative type of mind might ask, "Would you deprive the world, even for a few days, of the possible great benefits from this invention just because the inventor wishes to keep it a secret?" The answer must be "Yes." The world has always given and will always give honor, and frequently, great financial recognition to the scientist who makes a great discovery as soon as its greatness is proved.

TRAUMA IN THE NEWBORN

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Note. Following a brief discussion of the various forms of trauma to which the newborn is exposed, illustrations of important birth injury from cases at the New York Polyclinic Hospital during the past five years, are presented.

Birth trauma may result in (1) Wounds and abrasions of soft parts (2) Caput succedaneum, cephalhematoma (3) Fracture and injury of bones, and dislocations (4) Hemorrhages (5) Injury to muscles and internal organs (6) Nerve involvement and spinal cord injury. These conditions arise from either constriction within the birth canal, instrumentation or manipulation in the process of delivery.

Wounds and Abrasions

Wounds and abrasions are seldom serious and respond readily to simple surgical measures. The danger of serious infection must never be overlooked.

Caput Succedaneum

This condition arises, due to pressure of the uterus and pelvic diaphragm, causing interferences with the circulation of the blood and lymph, resulting in infiltration of the surrounding exposed tissues. Its location depends largely upon the presenting part. In L.O.A. and R.O.A. the infiltration takes place over the left or right parietal bones, in face presentations, over the presenting features, causing disfiguration in the brow over the forehead, in breech, over the posterior portion of the thighs and genitals. The tumor is of a soft doughy consistency, about the size of an egg, extent not bounded by sutures. No treatment is necessary as it usually disappears within a few days.

Cephalhematoma

This consists of an effusion of blood between the pericranium and the skull, or

between the dura and the skull, due to the tearing of blood vessels. It is characterized by a swelling which generally occurs soon after delivery, and which is limited by the sutures. It reaches its maximum size in about one week. Upon palpation, the impression may be gained of a groove or defect of the bony structures of the skull. This is due to the formation of bony tissue which grows from its periphery, the result of destruction of osteogenic tissue. The absorption of the effusion takes place rapidly, but the resolution of the tissue sometimes lasts from six to eight weeks or longer. If there is no complication, treatment is unnecessary.

Fractures and dislocations

Dislocations, especially of the shoulder and hip joint, are less common than the fractures which involve most frequently the skull, long bones, and the clavicle. They are, of course, due to prolonged labor and to instrumentation, or to a difficult delivery. X-ray, in fractures, is most important. The fracture of the skull may involve the occipital, parietal or frontal bones. Others may include orbit, lachrymal bones, and mandible. As the symptoms are closely related to intracranial hemorrhage, they will be discussed later. Fracture of the clavicle, due to pressure of the shoulders, against the pelvic bones, occurs most frequently in vertex presentations. The important symptoms are lack of motion in the arm, or the effected side, depression of the shoulder and crepitus. Complications may involve the brachial plexus. Fracture of the long bones, due to pressure and traction, are diagnosed from the inability of the infant to move the extremities involved, by the usual direct signs of fracture and by x-ray. Fortunately most of these fractures are simple, and respond readily to rest and immobilization. Trauma periostitis may occur after breech

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extraction due to traction upon an extremity This may be due to slipping of the periosteum near its attachment to the epiphysis

CASE 3163 Mother aged twenty-five years Had one child one year ago with average normal labor Version, breech extraction of a normal living male baby, weighing $9\frac{1}{8}$ lbs Indication face presentation, failure of chin to rotate anteriorly Solid blade forceps application attempted (high) previous to version, unsuccessful Total hours of labor $10\frac{1}{2}$

X-ray The left clavicle is fractured There is overriding of fragments

CASE 896 Pre-eclamptic toxemia. Low forceps delivery of normal male child 8 lbs, 12 ounces Indication—uterine inertia, total labor $3\frac{1}{2}$ hours Fracture of middle third of right humerus

X-ray Humerus is fractured in the lower part of the middle third The line of fracture is oblique There is overriding of the principal fragments (5 days later) Overriding and displacement of the principal fragments

CASE 269 Mother aged thirty-six Mid A forceps delivery of normal male baby weighing 82/16 lbs Right oblique episiotomy There was an occult prolapse of the cord which was caught in the forceps blade Total hours of labor thirty-four

X-ray There is a fracture of the occipital bone just posterior to the foramen magnum There are some signs of a fracture line in the parietal region near the sagittal suture There is delayed calcification of the parietal bone. (One month later) There are signs of callous at the occipital fracture and improved occlusion of the fissure in the super parietal region.

January 18—Child was forceps delivery There is a left facial paralysis and hematoma over the occipital region of skull, left eyelid, ear, arm, and back near scapulae. General condition is fair Infant has cerebral injury Impression Cerebral hemorrhage.

January 31—Child appears fairly responsive. Still shows some left facial paralysis (according to reports this is clearing up) There are no other apparent palsies although legs are a trifle spastic There is a large hematoma over the right occipito parietal region. Infant is feeding well and gaining weight. X-ray shows a fracture of the occipital bone and parietal bone. Advise expectant treatment It may be necessary to aspirate the hematoma at some later date, but advise waiting

February 27—Hematoma aspirated about eight c.c. of old blood evacuated Some bony deformity in region of hematoma Advise x-ray of skull Baby still presents a left facial weakness which is not as marked as when last seen General condition seems good

March 1—General condition good. Discharged March 2

CASE 1209 Mother aged twenty Medium forceps delivery of living female child Mother

and baby in good condition. Total labor ten hours Baby nursed well until ten days when it seemed listless Had a weak cry and difficulty in swallowing Fifteen c.c. of blood was given in the lumbar region Spinal tap showed bright red fluid Five c.c. were removed. Oxygen was given. Spinal tap repeated later in the evening and bloody fluid removed. Next day became cyanosed and died at 3 30 PM Before death, there was some slight twisting of the mouth with eyes, and muscles flaccid. Chest showed many coarse rales Marked systolic murmur over apex which was very marked in pulmonic area, second space.

Autopsy Head showed no evidence of forceps markings There was very little sub-aponeurotic hemorrhage. A wide separation and bulging of the bones of the skull as well as bulging of the fontanelles were found. There was a small amount of hemorrhage along the sagittal parietal suture without lifting of the periosteum There was no evidence of fracture of the parietal bones On opening the skull a diffuse unclotted hemorrhage was found over the left hemisphere extending anteriorly and centering particularly over the left anterior temporal lobe On the right there was very little hemorrhage except over the anterior margin of the temporal, which was subarachnoid in location The brain stem was severed so as to expose the tentorium. There was marked hemorrhage around the optic chiasma and incomplete laceration was found in the left tentorium to the mesial side It was about $1\frac{1}{2}$ cm in length and was ragged in outline. Dark clotted blood could be seen through the tentorium. The tentorium was lifted and a large blood clot was found pushing the left portion of the cerebellum to one side. It was imbedded in the substance of the cerebellum producing some pressure necrosis The clot measured approximately $2\frac{1}{2}$ -3 cm. There were a number of smaller clots attached to the base of the skull and a few on the right, but in those locations they peeled away from the brain when they were lifted out. The intracerebral fluid was bloody but there was no hemorrhage into the ventricles The choroid plexus was pale. Then the periosteum was peeled away from the occiput, a bilateral transverse laceration was found in about the middle portion measuring two cm. in length on each side. This must have been the result of some pinching force upon the occiput. Microscopically, the cerebellum showed hemorrhage, edema, and pressure necrosis

Diagnoses Cerebral contusion, bilateral fracture of the occipital bone, incomplete left tentorial laceration, massive left subtentorial hemorrhage, and intracerebellar hemorrhage (left), diffuse subdural cerebral hemorrhage (left), subarachnoid hemorrhage both temporal lobes and around the base of the brain, early cystic ovaries

CASE 184 Mother was admitted at 5 30 PM with hard labor pains every two or three minutes Fetal heart heard in the left lower quadrant at a rate of 120 to 150 $4\frac{1}{2}$ fingers dilated Water intact and bulging head pre

senting At 10 35 P.M. was delivered by version and breech. Extraction of a dead child as medium episiotomy. Position of vertex, compound head and arm, and fetal distress was indication for procedure. Duration of labor about three hours and five minutes. Mothers urine was negative.

Autopsy Examination of the head. When calped a number of small, diffuse, subaponeurotic hemorrhages were found over both parietal and occipital regions. On opening the skull, a single layer of blood was found over both cerebral hemispheres. On the right it was due to a rupture of the sagittal sinus. No blood clots were found. The ventricular fluid was blood tinged. No blood clots were found in the ventricles. A small tentorial laceration was found over the left lateral sinus.

Examination of the neck revealed a complete anterior dislocation of the atlas from the axis, so that the distance of about one cm. could be felt as the degree of anterior dislocation of the head upon the neck.

Diagnoses Anterior dislocation of the atlas and head with fracture of the spine, cerebral confusion and tentorial laceration, death in utero.

CASE 1708 Mother had one child twelve years ago (difficult forceps), another child nine years ago, operation for repair of cervix several years ago.

Membranes ruptured one week ago. Premature labor about seven months. Internal podalic version and breech delivery of living male child. Total labor fourteen hours. Baby lived nine hours.

Autopsy There was slight edema of the subaponeurotic tissues but no evidence of hemorrhage. The skull was opened and the brain showed marked edema with accumulation of fluid between the arachnoids but no evidence of hemorrhage. There was no evidence of tentorial laceration. The cerebral fluid was clear. Examination was made for fracture of the skull and two small fractures were found in the right occipital bone, one measuring about $1\frac{1}{2}$ cm in length in the middle portion, and the other at the point where the two ossification lines meet in the right lateral region. There was a rather wide and incomplete separation between the occiput and axis posteriorly so that the separation was about $\frac{1}{2}$ cm.

Diagnoses Prematurity and partial asphyxia, fracture right occiput, incomplete separation of occiput and axis.

CASE 796 Mother aged twenty-six. Delivery by low mid forceps (Kielland) of normal living male baby weighing 83/16 lbs. Right oblique episiotomy. Total hours of labor $11\frac{1}{2}$. Head retracted. Spastic. Eyes swollen. Has had some cerebral edema. Prognosis good.

X-ray There is a fracture of the occipital bone posterior to the foramen magnum. Attention is called to the degree of calcification of the frontal bone and occipital bone in comparison with the calcification of the parietal bone. This is probably the cause of the occipital fracture and interfered with the moulding.

CASE 758 Mother aged twenty-six. Previous history of note shows two miscarriages at 3 and 6 months. No toxemia and no bleeding. Spontaneous rupture of membranes. Blood pressure 122/70. Position R.O.T. Pelvis normal. Delivery of 7 lbs 2 ounce male baby with medium B forceps, second degree laceration, and manual extraction of placenta. Baby in good condition. Indication for forceps were delay of second stage more than $1\frac{1}{2}$ hours due to persistent R.O.P. Total duration of labor six hours.

Baby's temperature on the fourth day rose to 106°F , then took a descending step downward until the ninth day when it reached normal. On the third day it nursed poorly and condition was not good. Eyes twitched. Very listless and during morning respiration stopped, but upon administration of oxygen it returned. Artificial respiration was given at times. Fifteen c.c. of father's blood was given intramuscularly. Vomiting started. Refused nourishment. On fifth day had convulsions with sharp cry and raising of head. Convulsions appeared every fifteen to twenty-five minutes and lasted one-half minute. As a result of refusing food, glucose and saline were given intravenously. Next day seemed unable to swallow and then for a few days the baby seemed to improve. On tenth day became cyanotic with irregular respiration. Vomiting occurred after every feeding. Died on twelfth day. Coagulation time $4\frac{1}{2}$ minutes, bleeding time $2\frac{1}{2}$ minutes.

Autopsy The scalp and subaponeurotic tissues showed some edema and petechial hemorrhages. A large subperiosteal hemorrhage was found on the right side raising the periosteum upwards so that it left a fluctuating tumor mass about six cm in diameter involving practically all of the upper and outer portions of the parietal-occipital region. On incision, the contents were found to be fluid in character, and after peeling away the periosteum, an old fracture was found extending from the sagittal line downward for a length of about $7\frac{1}{2}$ cm and extending to the posterior margin of the base. A small amount of fluid blood was found beneath the dura, covering both cerebral hemispheres. No tentorial laceration was found. Both lateral ventricles were dilated (more on the right) so that anteriorly, the cortex measured about one cm in thickness. Blood clots were found in each lateral ventricle. At one point there was a small area of necrosis, apparently from pressure. The third and fourth ventricles were extremely dilated and were united by a continuous blood clot which in the fourth ventricle extended upward and produced a pressure necrosis of the central core of the cerebellum. This clot measured about three cm in diameter. There was a large amount of unclotted blood attached to the dura at the base. The exact origin of the hemorrhage was not determined. Microscopically, the cerebellum shows pressure necrosis as a result of hemorrhage.

Diagnoses Intracerebral hemorrhage into all four ventricles, pressure necrosis of the cere-

bellum, fracture skull (birth injury), periosteal hematoma—right parietal, pulmonary edema, passive congestion of the liver, low grade peritonitis, bilateral hydroureter, right hydro-nephrosis, left pyelonephritis (hemolytic staphylococcus kidney)

CASE 4652 The mother was a primipara. There was a definite delay in the delivery as a result of a rigid cervix. The bag of waters was ruptured artificially. The cord of the baby prolapsed, so that it was necessary to make an immediate delivery. A version was done and forceps applied to the after-coming head. During the process, it was believed that the uterus had been ruptured. Baby lived thirty-six hours.

Autopsy An incision was made behind the ears extending over the occiput. The scalp was reflected forward and backward. There was a depressed fracture of the right parietal bone with two longitudinal splits in the bone. One split arose from the occipital suture line and one from the anterior temporal line. These splits were about four cm each in length. The skull was opened by cutting along the suture lines. A large tentorial laceration was found on the right side, and a smaller and less complete one on the left side. There was a small amount of unclotted blood beneath the tentorium and around the base of the brain. The choroid plexi were intensely congested. There was no evidence of intraventricular hemorrhage.

Diagnoses Depressed fracture of skull, cerebral contusion, tentorial lacerations, congenital atelectasis, pneumonia and aspiration.

CASE 6604 Mother aged twenty-six. On admission, fetal heart was heard in the right lower quadrant. Mother weighed 146 lbs. Baby was born by version and breech extraction. Baby weighed seven lbs and was living. It began as a face presentation but was converted into breech extraction. High forceps were attempted but application could not be obtained after second trial. There was considerable bleeding. Fetal heart was slow and hence breech extraction was done. Baby had rapid, labored, respiration with twitches and some spasticity. Clinical impression was cerebral hemorrhage.

Autopsy The skull was opened and the subcutaneous tissues of the scalp showed some ecchymosis over the occiput and over the area covering the anterior fontanelle. There was a small amount of hemorrhage beneath the periosteum over the posterior parietal margins. On opening the skull no evidence of hemorrhage was found over the cerebrum, although the vessels were congested. The brain was freed anteriorly by cutting the olfactory and optic nerves, reflecting the cerebrum, backward and downward, and severing the brain stem. A tentorial laceration was found in the left medial plane which was ragged. Some free hemorrhage could be seen beneath and through the tentorium. The cerebrum was opened and showed no evidence of internal hemorrhage. The lateral ventricles were not dilated and the choroid plexi were normal except for con-

gestion. The intraventricular fluid was blood tinged. The tentorium was slit and the medulla and cerebellum removed. After their removal, a fluctuating hemorrhagic mass could be seen extradurally, surrounding the posterior portion of the base of the skull. On cutting the dura, blood clots were revealed. On removal of the clots and dura, a fracture and separation of the occipital bone was found with overriding of the planum occipitale over the planum nuchale. It gave the impression of two distinct ununited portions of occipital bone. The overriding was about one cm with the upper fragment pushed inward and the lower fragment outward.

Diagnoses Cerebral contusion, tentorial laceration, fracture and overriding of the occiput, subdural hemorrhage in the occipital area, sub-tentorial hemorrhage, simple autolytic post mortem ulcers of the stomach.

The following case is reported by Dr. Abraham Tow.² Infant X was a frank breech extraction. The labor pains were ineffectual and it was necessary to grasp the foot to create traction. The head was caught by the perineum and forceps were indicated. On the second day it was noticed that the right thigh was swollen, tender, and held in abduction, while the baby moved the leg a little, it seemed practically paralyzed. The condition improved slowly without special treatment.

Injury of the Nervous System

Of the peripheral nerves, most frequently involved are the facial and others of the brachial plexus. The lumbar plexus is infrequently injured. The active cause is generally from pressure by instruments or due to compression. These may be central involvement injury to the nerve at its exit from the pons in the aqueduct of Sylvius, or as it emerges from the stylomastoid foramen. One or both sides of the face may be affected. The symptoms are inability to wrinkle the forehead, eye is partially opened, corners of the mouth droop, and when it cries, the mouth is drawn to one side. This condition requires no treatment and the outcome is generally satisfactory. Paralysis of the upper part of the plexus (Duchenne-Erb type) is fairly frequent, due to injury to the fifth or sixth cervical roots and consequently may affect the innervation of the muscles of the upper extremities, as biceps or deltoid. If other portions of the plexus are injured, then the muscles of the hands and forearm may be involved. Treatment consists of immob-

lization with plaster, later followed by massage and passive exercises. The prognosis in these cases is uncertain and the condition may persist for a long time, and even be permanent. The injury is generally due to extravasation of blood or to the nerve plexus. Spinal cord injury is always serious and generally fatal.

Injury to Internal Organs

These are mostly due to intrathoracic or intra-abdominal hemorrhage, rupture of liver, spleen or kidney. The etiological factor is either mechanical violence, pressure or asphyxia. Hemophilia and hemorrhagic diseases of the newborn must be considered. The outcome is usually fatal after a few days. If a mass is palpable, operation is possible and transfusions are essential.

Hematoma and myositis of the sternocleidomastoid muscle. This occurs soon after delivery and is characterized by a hard cartilage-like tumor formed in the muscle near its attachment. Its size varies from that of a marble to a small egg. It is easily movable upon relaxation of the muscle and is not painful. The head is inclined toward the injured muscle with the face in the opposite direction.

Etiology. occurs most frequently after breech presentations due to stretching of the muscle in the rotations of the head, resulting in a tearing of the fibers and infiltration of the blood under the muscle sheath and between the torn fibers. The prognosis is good, as the tumor generally disappears after a few weeks. Treatment is generally limited to gentle massage and passive movements of the head. If there is replacement of the muscle by fibrous tissue, a condition of congenital wry neck may result. This may be of intrauterine causation as believed by Volcker. The treatment should be conservative and surgical treatment should not be instituted for the first year.

*Hemorrhage of the adrenals.*⁵⁻⁹ These glands are very vascular and friable in their early stages and consequently bleed easily. The weight at birth is about five grams and involution occurs soon after birth. Bilateral hemorrhages are more common than unilateral and the right side

more frequently affected than the left. It may be of infectious origin followed by an inflammatory condition of the intestinal tract. Toepper reported a case in which the mother was tuberculous and Reasmen isolated *Staphylococcus aureus*, and *albus*, from the blood in pure culture in four cases.

CASE 9133. These babies were small premature twins. The period of gestation was about 6½ months. They weighed 2 lbs and 2 lbs 9 oz. They were born alive, but one died after an hour and the other lived thirty-seven hours. The first baby presented by the breech. The cord prolapsed when the membranes were ruptured and an extraction was done through a cervix not sufficiently dilated. This child lived one hour. Autopsy showed a torn tentorium and a ruptured jejunum. Version and extraction was done on the second baby. Autopsy showed a rupture of the capsule of the liver and considerable intra-abdominal hemorrhage.

The mother was admitted to the hospital complaining of abdominal pains varying from fifteen to twenty minutes during the day. Her general health was good. Has had two abortions, one accidental and one medicinal. No history of tuberculosis, syphilis, etc.

The mother was a para III, age thirty-two. She has two other healthy children. With this pregnancy she had a polyhydramnios. There were three gal of fluid (no Wassermann was taken) all of which was in the upper sac. It would have been very difficult to have reached this sac if one had decided to induce labor on account of the excessive amount of fluid. As conditions were—in labor and the cervix dilated two fingers—it was not easy to rupture the upper sac. The fact that there was one dry sac below established the diagnosis of twins.

The babies had been under a good deal of pressure. They were poorly nourished and seemed scarcely viable.

Autopsy No 1. The belly was filled with blood and a large blood clot measuring about 3 cm in diameter. The right half of the liver, superiorly, was markedly hemorrhagic and fluctuated beneath the fingers, an extensive subcapsular hemorrhage of the liver was on this side. Microscopically, the liver was like that found in a premature baby, with no evidence of syphilis. It showed some fatty infiltration and extreme congestion.

No evidence of hemorrhage was found in the subaponeurotic tissues. The skull bones were unusually well-unioned for a baby of the age at which this one was supposed to be. On opening the skull, the brain showed considerable edema and moderate congestion in the cerebral vessels, but no evidence of diffuse intracranial hemorrhage. A small blood clot was found just to the right of the right optic nerve, another small blood clot, several mm in diameter, was found in the region of the anterior portion of the pons varoli, along the

right inferior surface of the medulla. There was no evidence of tentorial laceration. In the left lateral ventricle was a blood clot measuring about four cm. in length and one-half cm. in width. The choroid plexus was markedly congested. Section of the brain revealed no hemorrhagic areas in the brain substance proper. Examination of the right ventricle showed another blood clot, about six cm. in length and one-half cm. in width.

Diagnoses Prematurity, intracerebral hemorrhage, cerebral contusion, intraventricular hemorrhage, ruptured liver and hemoperitonei.

Autopsy No 2 The abdominal wall immediately collapsed just as soon as puncture was made through the peritoneum. It was dilated with gas (bacterial). The intestines, however, remained moderately distended. The pelvis was filled with fluid of a yellowish cloudy appearance, with a few flecks of yellowish, almost biliary material with mucous content.

Stomach was distended with gas and on the inferior surface showed a few clear, small pin-head sized transparent areas which appeared, grossly, like the so-called "spasm" ulcers of the stomach. Microscopically, the stomach showed a small acute ulcer with complete digestion and destruction from the wall down to the serosa, showing an absence of the muscle layers. It was not accompanied by hemorrhage nor an inflammatory lesion, and corresponded to that of the so-called "spasm" ulcer caused by a spastic condition of the muscle and resulting autolysis of the wall by the gastric juices.

Microscopically, the liver showed marked congestion, many blood islands, and the general appearance of an immature liver. Fatty infiltration was not as marked as in the other liver. There was rather extreme subcapsular hemorrhage.

In the first portion of the jejunum was found a point of rupture. This point of rupture was about $1\frac{1}{2}$ cm. in length and a complete laceration was found with a wide separation. The contents found in the abdomen showed this yellowish bile-stained duodenal content appearance. Several small ulcerations were found in the jejunum immediately below the point of rupture. About six or seven c.c. of this mucoid material was found in the abdominal cavity.

Diagnoses Prematurity, ruptured jejunum, generalized peritonitis.

Etiology

- 1 Trauma during birth
 - 2 Asphyxia
 - 3 Eclampsia in the mother
 - 4 Stasis due to compression of the vena cava, between the liver and the vertebral column
 - 5 Thrombosis of the suprarenal vein
 - 6 Hemorrhagic diseases, infection
- The hemorrhages may be small or diffuse, involving the whole gland

Symptoms High temperature, skin rash, purpuric or petechial, rapid respiration, cyanosis, convulsions or twitchings, collapse, abdominal tumor, jaundice and metabolic changes, progressive anemia, fall in blood pressure.

Gordon³ reports a hypoglycemia, which indicates a serious prognosis. Treatment is essentially that of internal hemorrhage, blood transfusion, glucose intravenously, and operation as indicated.

Cerebral Hemorrhage

This condition is by far the most interesting and baffling of all the results of trauma in the newborn. It occurs sometimes in the cases of spontaneous delivery, but the etiological factor is generally a difficult labor, assisted with forceps or a malposition of the fetus with extraction. The danger of hemorrhage in these cases is so well-recognized that an injection of twenty c.c. of whole blood is routine in our obstetrical service. It arises from compression of the head, overriding of the cranial bones, tension or tearing of the vessels, or occlusion of the falciform sinuses. They occur between the skull and the dura, between the dura and the arachnoid and pia, between the pia and brain, into the ventricles or into the brain substance. They are divided according to etiology in (1) trauma in which there is excessive molding of the head and overriding of the sutures.

A Over the cerebrum, due to injuries of the longitudinal sinus and vessels.

B Below the tentorium. The transverse sinuses are involved.

C Into the ventricle, injury to the choroidal plexus, invariably fatal.

D Into the dura, elongation of the head with pressure of the brain against the dura and tentorium.

E Into the spinal cord.

(2) Congestion of stasis with rupture of the vein in prolonged complicated labor (Hemorrhages are petechial in character).

A Malformation

B Child oversized

C Twins

D Cord around the neck.

E Rigid cervix

F Prolonged delay between the delivery and the head and shoulders

(3) *Disease conditions* Hemorrhage of the newborn, prematurity, cerebral bleeding due to friability of the vessels, asphyxia, congenital heart, toxanemia - from causes as sepsis (syphilis doubtful)

Symptoms These may be gradual or sudden Dr Tow reports a case of a seven months premature who weighed four pounds at birth He did well until the seventh day, when he developed convulsions, became cyanotic, developed Cheyne-Stokes respiration, and died within twelve hours Autopsy showed a small hemorrhage over the medulla

A similar case occurred in our service A premature of seven months, weighed at birth 2/09 pounds The child's condition improved, increasing its weight to nearly six pounds Suddenly the baby developed similar symptoms and died Unfortunately it was impossible to obtain an autopsy, but cerebral hemorrhage was diagnosed Convulsions are characteristic, with the infant hypertonic and spastic

Twitchings may be bilateral or localized The *respiration* is irregular and rapid, often assuming a Cheyne-Stokes quality due to pressure upon the medulla The *cry* is weak and the infant difficult to arouse, often moaning constantly *Eye symptoms* are generally present, nystagmus and failure of the pupils to react to light Fixed or unequal pupils offer a bad prognosis *Facial paralysis* may be present Pallor is generally constant and suggestive of severe lesion There may or may not be a rise in temperature The intramuscular injection of blood has already been referred to, in order to increase coagulation If cerebral bleeding is suspected, then injection should be repeated Absolute quiet and rest are essential The head of the bed should be raised to reduce intracranial pressure, and external heat should be applied Five and ten per cent CO₂ and oxygen should be near the crib and used as indicated Lumbar puncture is discouraged as the spinal fluid may be tinged from a punctured vein, and the trauma incident is dangerous Sedatives are used as required

CASE 4 Mother a multipara, weight of baby at birth 12-4, did well for four days Developed restlessness with a temperature of 102, vomiting, pallor, and loose green stools

A firm tumor was found in the left splenic region, movable, and apparently painful upon pressure. Upon operation, a large hematoma was found intact, within the suprarenal capsule. Within twelve hours after its removal there was marked improvement, and later complete recovery

CASE 3378 Mother aged thirty-seven Had three abortions, one spontaneous at 3½ months, one induced at 4½ months, and one spontaneous at 6½ months There is one living child twelve years of age Had one child six years ago which lived three days

External examination showed transverse presentation. After two days and twenty hours of labor, a breach extraction was done with forceps delivery of the breech Baby was born in good condition.

On the third day baby had a convulsion like a spasm, cried considerably, and was cyanotic. Thromboplastin and paregoric were given. Baby continued to cry when touched and to have spasms with weak cry It developed a droop to left side of face. Cyanosis developed and respirations ceased Baby died seven hours after attack began

Autopsy The kidneys were exposed, appeared considerably enlarged, and were surrounded by a large mass of coagulated blood The urters were dilated, apparently patent and grossly normal The kidneys and adrenals were removed together and the hemorrhage was found to be into the adrenals, distending their capsules A picture was taken of both kidneys and adrenals and specimen was preserved by request of Drs Hawks and Cobb Microscopically, the kidneys shows prematurity of newborn with marked cloudy swelling and degeneration of the tubules and hemorrhage into the interstitial tissue in both the cortex and medulla. The suprarenal showed extensive necrosis as a result of pressure, and hemorrhage and blood clot, so that it was difficult to recognize the organ histologically

Diagnoses Hemorrhage and pressure necrosis of the suprarenals, hemorrhage, cloudy swelling, and prematurity of the kidney

CASE 4907 Mother aged twenty-nine. She was a para I, gravida I She was admitted about thirty-two days before she was due to deliver On the day of admission, there was a low forceps delivery of a female baby weighing 8 5/16 lbs The shoulders were delivered with difficulty The baby was in poor condition, requiring thirty minutes for resuscitation with the Flagg machine before breathing The baby expired approximately twenty-two hours later

Autopsy The kidneys were normal Microscopically, they were congested and showed some cloudy swelling There was a large retroperitoneal hemorrhagic mass underneath the liver which was found to be connected with the adrenal On the left side, a similar retroperitoneal hemorrhagic mass was found about four cm. in diameter It was, also, connected with the upper pole of the adrenal There

right inferior surface of the medulla. There was no evidence of tentorial laceration. In the left lateral ventricle was a blood clot measuring about four cm in length and one-half cm in width. The choroid plexus was markedly congested. Section of the brain revealed no hemorrhagic areas in the brain substance proper. Examination of the right ventricle showed another blood clot, about six cm in length and one-half cm in width.

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D. Into the dura, elongation of the head with pressure of the brain against the dura and tentorium

E. Into the spinal cord

(2) Congestion of stasis with rupture of the vein in prolonged complicated labor. (Hemorrhages are petechial in character)

A. Malformation

B. Child oversized

C. Twins

D. Cord around the neck

E. Ridged cervix

F. Prolonged delay between the delivery and the head and shoulders

TABLE I

	1931	1932	1933	1934	1935	Total
Deliveries	744	740	651	790	844	*3 769
Operations	{ 372= 50%	{ 411= 56 2%	{ 370= 56 8%	{ 458= 59 6%	{ 483= 57%	{ 2 094 55 5%
Forceps { Low	168	193	149	134	193	837
{ Mid	99	118	135	208	191	751
{ High	12	7	5	3	0	27
	279	318	289	345	384	1615
Vernon	27	29	17	17	18	108
Breech	29	23	25	28	16	121
Cesarean	37	41	39	68	65	250

* Trauma in 57 cases (1.5%)

TABLE II—TRAUMA IN DELIVERY
1931 to 1936

Total number of cases studied 57 (1.5%)			
Forceps	25	{ Low Mid. High.	4 18 3
Vernon and Breech Extractions.	25		
Cesarean sections	1		
Autopsies	22		
Fractures		Forceps	Breech
Skull	11	6	5
Clavicle	2	1	1
Spine	1	0	1
Extremities / Humerus	1	1	0
Thigh	2	1	1
Intracranial Hemorrhage	*18	7	11
Suprarenal Hemorrhage	4	2	2
Hematoma	3	3	0
Facial Paralysis	4	3	1
Dislocation of Atlas	1	2	1
Separation of Atlas and Axis	1	1	0
Rupture of Liver and Jejunum	1	0	1

* Suspected cases 6 (Forceps 2 Breech, 4)

Cerebral diplegias are generally bilaterally symmetrical

2 Patients with diplegias have heads which are usually microcephalic, while with hemorrhage the heads are often enlarged

It must be concluded that the real birth injuries to the brain are caused by fractures, intracranial hemorrhages and necrosis, by laceration and by encapsulated meningeal hematoma. It is very difficult to differentiate between these lesions, and the treatment, aside from depressed fractures, is practically the same for all of the serious cerebral conditions

115 E 61 St

Acknowledgment

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References

- 1 Shaw and La Fetra *The Diseases of Children*, Vol. 2
- 2 Tow, A. *Diseases of the Newborn*, Oxford University Press, 1937
- 3 Gordon, M. The Syndromes of Suprarenal Hemorrhage in the Newborn, *Journal Endocrinology*
- 4 Corcoran and Strauss *J.A.M.A.* 82 626, 1924
- 5 Ford, I. R. *Medicine* 5 121, 1926
- 6 Goldzieher and Gordon *Endocrinology* March and April 1932
- 7 Nandi, G. C. and Sangutta, B. *Indian Journal Pediatrics*, June 1936
- 8 Aegerter, E. E. *J.A.M.A.* 106 1715, 1936
- 9 Rabinowitz *Amer Jour Med Soc* 1923

THE DIP IN DIPHTHERIA

A news item reporting that there have been no diphtheria deaths for six years in Brantford and Hamilton, Canada, leads James A. Tobey, Dr P H, President of the Westchester Tuberculosis and Public Health Association, to say that "credit should also be given for similar achievements in the United States" He writes to the *New York Times*

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in 1935, and fifteen reported no deaths in 1934 Cities in the no-diphtheria class for both of these years included Cambridge, New Bedford and Springfield, Mass., New Haven, Conn., Syracuse and Utica, N. Y., and Seattle, Wash. Yonkers, N. Y., is very nearly in this group, having no deaths from diphtheria in 1935, and rates less than one per 100,000 population since 1930

In New York City the diphtheria death rate in 1935 was only 0.9 per 100,000, whereas in 1900-04 it was fifty-eight, and in 1920-24 it was fourteen

was no other anatomical finding of importance. Microscopically, the adrenals showed extensive hemorrhage.

Diagnoses Bilateral adrenal apoplexy and terminal pneumonia.

CASE 7054 Mother aged twenty-four. Delivery by low forceps operation. Baby weighed eight lbs two ounces. Duration of labor twenty-three hours. Resuscitation of baby was necessary. Breathed in gasps for long time. Respiratory embarrassment continued. A congestion of the lungs developed, probably the result of aspiration.

Autopsy The lower portions of the trachea and branches of the bronchi were filled with thick mucus which would have contributed to the respiratory embarrassment. The lungs filled the chest. They were dark purple in color except at the extreme anterior margins which were of a cherry pink color. The lungs were fairly solid but did float. They showed extensive congestion, and some edema mixed with atelectasis. There was no evidence of a fibrinous pneumonia, although the picture was not incompatible with that of an early beginning pneumonia. Microscopically, the lungs show edema and massive congestion with extravasation of red cells into the alveoli, some atelectasis, and a beginning pneumonic process.

The muscle and valves of the heart appeared normal. The right heart was dilated. The left suprarenal was normal, the right was dilated and markedly hemorrhagic. The medulla showed a large blood clot measuring about two cm in diameter.

Diagnoses Beginning aspiration bronchopneumonia, hemorrhage into the right suprarenal, right cardiac dilation.

Cesarean Section

CASE 3860 Primipara age forty. Moderately contracted pelvis. Thirty-six hours labor with no progression—dystocia.

Baby admitted to the nursery in fair condition, weight at birth, eight pounds seven ounces, temperature range from 99–100.8°. On third day developed twitchings of the right arm and leg, rigidity of the body. This was followed by two general convulsions the next day. From that day to discharge it rested quietly and was discharged weighing eight lbs eleven ozs.

X-ray was negative for fracture of the skull.

Diagnosis Suspected intracranial hemorrhage.

CASE 5707 Mother aged thirty-six. One previous pregnancy, nine years ago, which was normal. Position LOA. Blood pressure 110/86. Baby was delivered by version and breech extraction after fifteen hours of labor. There was difficulty because of extended head and slightly deformed pelvis. Unable to apply forceps to after-coming head. Normally developed female child weighing seven pounds and eight ounces. There was difficulty in resuscitating child (Machine used with CO₂ and O₂).

Child died after 27½ hours, apparently of cerebral hemorrhage.

Autopsy There was a moderate degree of ecchymosis of the subaponeurotic tissues with very little evidence of moulding of the head. Fontanels bulged slightly. The brain was examined. A thin film of unclotted blood covered both hemispheres in the posterior two-thirds. At first this blood was believed to have been the result of puncture of the sagittal sinus on opening the skull, however, a large amount of clotted blood was found on top of the tentorium, and there were two extensive incomplete lacerations of the tentorium—one on each side. After lifting the tentorium, considerable blood was found around the cerebellum and base of the brain. There were a few small clots in the region of the optic chiasm. The ventricular fluid was found to be blood tinged but in the lateral ventricles there was no evidence of blood clot. The cerebral hemispheres showed no internal hemorrhage. Examination of the medulla showed the fourth ventricle to be filled with blood clot. It seemed possible that the hemorrhage arose from the region of the lenticular nucleus.

Diagnoses Diffuse intracranial hemorrhage, intraventricular hemorrhage (fourth), incomplete tentorial lacerations, cerebral contusion.

The results of intracranial hemorrhages are always problematical. Unquestionably, in slight cases, there are no serious aftereffects. With severe hemorrhage, extensive damage to the brain tissue may persist, and if the infant survives, be evidenced by mental retardation, monoplegic and diplegic paralysis. It is true that these conditions may also arise from a congenital defect causing an aphasia of brain tissue. Hydrocephalus may be the result of trauma or it may be due to brain defect. Of sixty-nine premature infants, who survived intracranial hemorrhage at birth, forty-two showed physical injury. Eleven or sixteen per cent showed severe damage, with spastic paralysis. Seven showed mental retardation. Seven showed moderate cerebral injury evidenced by neurologic findings. Four were subnormal. Nine or thirteen per cent slight physical injury and two mentally retarded. Six were of average intelligence and one of superior intelligence. In a study by Ford,⁵ there were evidences that the congenital diplegias were not due to hemorrhage but to congenital defects. The reasons for this are

1. Meningeal hemorrhage in at least half of the cases are unilateral and when bilateral, almost unequal upon two sides.

TABLE I

	1931	1932	1933	1934	1935	Total
Deliveries	744	740	651	790	844	*3 769
Operations	{ 372== 50%	{ 411== 56 2%	{ 370== 56 8%	{ 458== 59 6%	{ 483== 57%	{ 2 094 55 5%
Forceps { Low	168	193	149	134	193	837
{ Mid	99	118	135	208	191	751
{ High	12	7	5	3	0	27
	279	318	289	345	394	1615
Version	27	29	17	17	18	108
Breech	29	23	25	28	16	121
Cesarean	37	41	39	68	65	250

* Trauma in 57 cases (1.5%)

TABLE II—TRAUMA IN DELIVERY
1931 to 1936

Total number of cases studied 57 (1.5%)

Forceps	25	{ Low Mid High.	4 18 3
Version and Breech Extractions.	25		
Cesarean sections	1		
Autopsies	22		
Fractures		Forceps Breech	
Skull	11	6	5
Clavicle	2	1	1
Spine	1	0	1
Extremities { Humerus	1	1	0
{ Thigh	2	1	1
Intracranial Hemorrhage	*18	7	11
Suprarenal Hemorrhage	4	2	2
Hematoma	3	3	0
Facial Paralysis	4	3	1
Dislocation of Atlas	3	2	1
Separation of Atlas and Axis	1	1	0
Rupture of Liver and Jejunum	1	0	1

* Suspected cases 6 (Forceps 2 Breech, 4.)

Cerebral diplegias are generally bilaterally symmetrical.

2 Patients with diplegias have heads which are usually microcephalic, while with hemorrhage the heads are often enlarged.

It must be concluded that the real birth injuries to the brain are caused by fractures, intracranial hemorrhages and necrosis, by laceration and by encapsulated meningeal hematoma. It is very difficult to differentiate between these lesions, and the treatment, aside from depressed fractures, is practically the same for all of the serious cerebral conditions

115 E. 61 St

Acknowledgment

I am indebted to Dr Everett Hawks for permission to use the records of the Obstetrical Department, and to Dr Abraham Tow for personal communications

References

- 1 Shaw and La Fetra *The Diseases of Children*, Vol. 2
- 2 Tow, A. *Diseases of the Newborn*, Oxford University Press 1937
- 3 Gordon M. *The Syndromes of Suprarenal Hemorrhage in the Newborn*, *Journal Endocrinology*
- 4 Corcoran and Strauss *J.A.M.A.* 82 626 1924
- 5 Ford, I R. *Medicine* 5 121 1926
- 6 Goldzieher and Gordon *Endocrinology* March and April, 1932
- 7 Nandi, G C and Sanghita B *Indian Journal Pediatrics* June 1936
- 8 Aegester, E. E. *J.A.M.A.* 106 1715 1936
- 9 Rabinowitz *Amer Jour Med Soc* 1923

THE DIP IN DIPHTHERIA

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in 1935, and fifteen reported no deaths in 1934. Cities in the no-diphtheria class for both of these years included Cambridge, New Bedford and Springfield, Mass., New Haven, Conn., Syracuse and Utica, N. Y., and Seattle, Wash. Yonkers, N. Y., is very nearly in this group, having no deaths from diphtheria in 1935, and rates less than one per 100,000 population since 1930.

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INFECTIONS OF THE SKIN DUE TO MONILIA ALBICANS

I Diagnostic value of intradermal testing with a commercial extract of *Monilia albicans*

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*From the Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital,
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Through the work of Kaufmann-Wolf,¹ Fabry,² Kumer,³ Hopkins,⁴ Benham,⁵ and others, a group of skin eruptions not previously considered to be related have been found to be caused by a so-called yeast, *Monilia albicans*. These eruptions are frequently localized to one area of skin but they may become of wide extent. A list of the more common disorders comprising the group of localized cutaneous *Monilia* infections includes 'erosio interdigitalis, paronychia and onychia, perlèche, intertrigo of the toes, intertrigo of the submammary, axillary, inguinal, intergluteal and umbilical regions, and some of the eczematous eruptions of the smooth skin. Infection of the oral mucosa (thrush) may also be included as another manifestation of this organism. *Monilia albicans* has been considered capable of causing a vaginal discharge. The same organism, or one closely related to it, is said to be the cause of an obstinate intestinal infection (sprue) and also an infection of the lungs and bronchi⁷ of grave import unless recognized. The incidence of infections of the hands due to *Monilia albicans* is higher in those whose hands are frequently immersed in dish water and in those who handle fruit,⁸ and is more frequent in diabetics than in individuals with a normal blood sugar. In its localized forms, cutaneous moniliasis is seldom seen in patients during the first three decades and is most common among the middle-aged. In the series of patients with *Monilia* infections, which forms the basis for part of this report, eighty-three per cent of the patients were between the ages of thirty-one and sixty, forty-seven per cent of the total were found to be between the ages of forty-one and fifty (Chart I). The more generalized eruptions, which fortunately are of rare occur-

rence, usually appear at an early age. Coincident with the cutaneous manifestations of the disease, whether of limited or of generalized extent, involvement of the buccal mucosa and tongue and the presence of *Monilia albicans* in the stool are frequently noted, symptoms referable to the gastrointestinal tract, however, are usually absent. It is interesting to recall the experience of Benham and Hopkins⁵ who attempted to isolate *Monilia albicans* from the skin and nails of one hundred normal young adults. In this, they were entirely unsuccessful. *Monilia albicans* was recovered from the alimentary tract of eighteen per cent of the same group, the organism being considered as living a saprophytic existence there. In the series of forty-two patients reported herewith, *Monilia albicans* was isolated from the mouth or feces in seven instances (16 per cent).

In studying the immunologic reactions evoked by *Monilia albicans*, it was noted that the extract of *Monilia albicans*, used in routine testing, caused numerous reactions in patients who had no clinical evidence of any of the manifestations of cutaneous moniliasis nor any history of any such infections at a prior date. The accuracy of the test as a diagnostic procedure thus became doubtful. In some instances, we also noted only a slight or even a negative response to the intracutaneous test with an extract of *Monilia albicans* in patients who had a well-defined and proven infection due to this organism. Biberstein and Epstein⁹ conducted skin tests on a large number of patients using various prepared antigens. In many instances, more vigorous reactions to the intracutaneous test were observed in patients with cutaneous moniliasis than in controls.

CHART I—Percentage incidence by age groups of 42 patients with infections of the skin caused by *Monilia albicans*

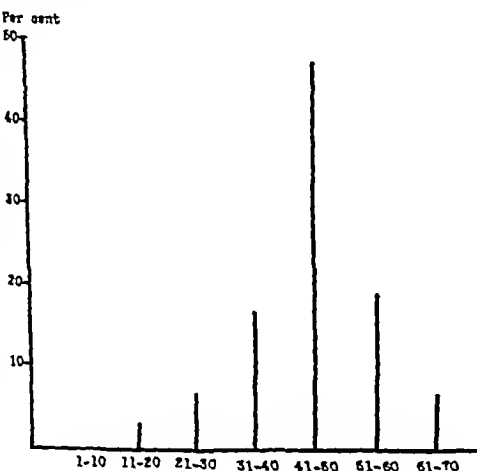
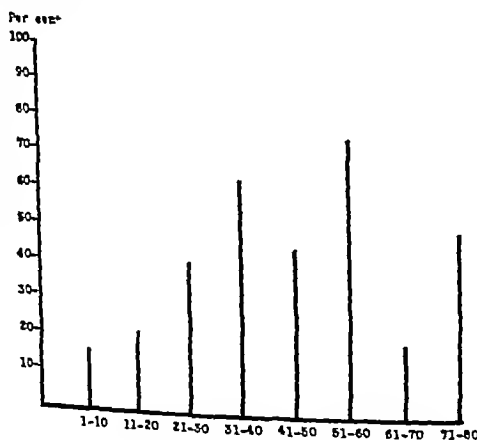


CHART II—Percentage relationship of positive reactions to the total number of injections of an extract of *Monilia albicans* in different age groups, based on 192 patients all clinically and microscopically free of all types of fungus infections



They found that occasionally seemingly healthy persons reacted to weak dilutions of the vaccine. The same investigators stated that patients with cutaneous moniliasis did not react as consistently to the injections of monilia extracts as animals with experimental *Monilia* infections

Personal Investigation

We have tabulated our results in the

testing of patients (1) with proven *Monilia albicans* infections, (2) with fungus infections caused by other fungi, and (3) with no clinical or laboratory evidence of any type of fungus infection

An analysis of our data shows that the patients from whom we isolated *Monilia albicans* were suffering from the following diseases

1 Paronychia and onychia	28
2 Tinea cruris	4
3 Intertrigo (multiple)	3
4 Intertrigo (feet alone)	2
5 Erosio interdigitalis	2
6 Eczema	2
7 Perleche	1

Thirty-five of the patients were females and seven were males. Of the thirty-five female patients, twenty-six were housewives, five were unemployed, two were domestics, one was a dress operator, and one was a saleslady. Of the seven male patients, three were waiters, two were salesmen, one was a clothes presser, and one was at school. The age incidence of these patients is considered in Chart I.

Method

Intracutaneous tests were carried out with a stock extract (*Oidiomycin*, Lederle) made from a single strain of *Monilia albicans*. The vaccine was diluted 1:150 and 0.1 cc of this mixture was the test dose. The sites of the injections were observed after forty-eight hours and again at the end of one week.

Results

The results of the tests are shown in Tables I-III. Fifty-seven per cent of the patients who had proven *Monilia* infections showed a cutaneous reaction to the test dose. In forty-three per cent, no reactions were noted. In the two series of controls (Tables II and III) the results were almost identical with one another, the number of positive reactions being forty-five and forty-six per cent respectively. It is also notable that the percentage of strong reactions is less in the series of patients with *Monilia* infections than in either of the two other groups. The rapid disappearance of the reaction, as noted from the difference in the readings at forty-eight hours and at the end

of one week, seems to be a consistent feature of the cutaneous response to the injection of the extract of *Monilia albicans*.

The reason for the high incidence of cutaneous reactions to a *Monilia* extract in individuals showing no evidence of any of the manifestations of cutaneous moniliasis and with no history of a previous outbreak, may indicate a sensitization phenomenon due to exposure to the organism (*Monilia albicans*) with the development of an infection without any clinical manifestations. There is also the possibility that *Monilia albicans* present in the gastrointestinal tract may be capable of sensitizing the skin in a manner comparable to skin sensitization to fungi imperfecti present in a focus on the interdigital webs of the feet. These and other

associated problems are being investigated at the present time. It is of interest to note the gradual increase in cutaneous sensitivity to the extract of *Monilia albicans* with increasing age in patients free of fungus infections (Chart II). Thus, between the ages of one and ten years inclusive, only sixteen per cent of the patients reacted to the test dose of the extract of *Monilia albicans* while in the decade between fifty-one and sixty years inclusive, seventy-five per cent of the patients reacted to a like test dose of the vaccine. The agreement in the results of the tests in the groups of patients in Tables II and III, showing that the presence of an infection due to a Trichophyton did not increase the incidence of reactions to the *Monilia* extract, is further evidence in favor of a difference in group sensitivity between fungi of the Trichophyton group and *Monilia albicans*.¹⁰ The majority of patients under consideration in this paper were suffering from localized forms of cutaneous moniliasis. We have also observed a patient (not reported in detail at this time) with a widespread eruption due to *Monilia albicans* in whom a reaction was absent at the test site of an intracutaneous injection of an extract of *Monilia albicans*. In another similar case, the same test evoked a strong reaction.

TABLE I—ANALYSIS OF THE CUTANEOUS REACTIONS TO OIDIOMYCIN ADMINISTERED INTRACUTANEOUSLY TO 42 PATIENTS WITH PROVEN *MONILIA ALBICANS* INFECTIONS

Reading after	Strong* reaction	Mild reaction	Total positive reaction	Negative reaction
48 hours	19%	38%	57%	43%
1 week	5%	19%	24%	76%

* In this table and in the two accompanying tables, a strong reaction indicates an area of erythema 1.5 to 2 cm or more in diameter, a mild reaction indicates an area of reaction from 0.5 to 1.5 cm in diameter, and a negative reaction indicates no response or an erythematous area smaller than 0.5 cm in diameter.

TABLE II—RESULTS OF INTRACUTANEOUS TESTING WITH OIDIOMYCIN IN 91 PATIENTS FREE OF *MONILIA ALBICANS* BUT WHO HAD OTHER FUNGUS INFECTIONS

Reading after	Strong reaction	Mild reaction	Total positive reaction	Negative reaction	Unreported
48 hours	24%	21%	45%	55%	
1 week	6%	11%	17%	66%	17%

TABLE III—RESULTS OF INTRACUTANEOUS TESTING WITH OIDIOMYCIN IN 192 PATIENTS WHO, ON CLINICAL INSPECTION AND MICROSCOPIC TESTING, WERE FREE OF ALL TYPES OF FUNGUS INFECTIONS

Reading after	Strong reaction	Mild reaction	Total positive reaction	Negative reaction
48 hours	24%	22%	46%	54%
1 week	2%	14%	16%	84%

Summary and Conclusions

1 Of forty-two patients with cutaneous moniliasis, fifty-seven per cent reacted to the intracutaneous test dose of a commercial extract of *Monilia albicans*, forty-three per cent of the same group of patients showed a negative reaction.

2 Of ninety-one patients with proven fungus infections due to fungi other than *Monilia albicans*, forty-five per cent revealed hypersensitivity to the extract of *Monilia albicans*.

3 Of one hundred and ninety-two patients who were clinically and microscopically free of all types of fungus infections, forty-six per cent reacted to the intracutaneous test with the *monilia* extract.

4 The use of the intracutaneous test with *Monilia* vaccine would appear to have limited diagnostic value. The demonstration of the organism, *Monilia*

albicans, in culture, is necessary to confirm the diagnosis of cutaneous moniliasis

200 W 59 St
301 E. 19 St
57 W 57 St

References

- 1 Kaufmann-Wolf *Dermat Ztschr*, 22 441, 1915
- 2 Fabry, J *München med Wchschr*, 44 1557, 1917

- 3 Kumer, L *Arch f Dermat u Syph*, 140 105, 1922
- 4 Hopkins, J G *Arch Dermat & Syph*, 25 599, 1932
- 5 Hopkins, J G and Benham, R. W *N Y STATE J MED*, 29 793, 1929
- 6 Benham R. W *J Infect Dis*, 49 183, 1931
- 7 Irish, R. H *N Y STATE J MED*, 36 1491, 1936
- 8 Benham, R. W and Hopkins, A. M *Arch Dermat & Syph*, 28 532, 1933
- 9 Biberstein, H and Epstein, S *Arch f Dermat u Syph*, 165 716, 1932
- 10 Sulzberger, M B *J Immunol* 23 73, 1932
- Kerr, P S Pascher, F, and Sulzberger, M B *J Allergy*, 5 288, 1934

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

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Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

How the Schizophrenic Speaks

(Conclusion)

"I am living inside of myself and dying outside of myself"

"Like a horse which is frightened by a piece of paper flying in front of its eyes, and bolts, so do I when I come to a situation which I cannot grasp"

"A man gone blind is cut off through one channel of sensation. But I am cut off from the world through the closing of the channels of feelings. In some manner my thinking and feelings are separated. How I can think without getting my information from my feelings is a mystery to me"

"It's like a river that has been dammed"

"I wonder what has happened to my pity, to the fear of poverty and to all other emotions that I had. Have they all been suppressed because they were too painful? Will it be necessary to revive them in order for me to become part of humanity? My present attitude is a refusal to face facts"

"I am like a timid animal in its wild state. It's always on its guard. Its whole body is conditioned for immobility or fight as the occasion may warrant. Whether eating, drinking or sleeping it is always on the outlook for danger"

"I adopt the belligerent attitude of some animals by bristling. I do not bristle, but I have a wisecrack or sneer to substitute. I simply use the human equivalent of force, which is language"

"I am always living in a hostile environment"

"What a paradox! As long as I do not come in direct contact with people I have an exaggerated fear, awe, respect. I look up to them. But when I meet them, I despise

them. They have no significance. Their talk is unintelligible"

"Things are seen through a mirage. The world outside is dying. I am blocked in all directions. I hate the thing in myself that balks me. I am like honey looking for bees. If I had enough money to repay all those who ever aided me, including my parents and the school authorities, I would do it for the purpose of getting rid of them, but also to bribe them so that they might not blame me for my hostility to them. Why am I hostile? The world has treated me well."

(In reality he is glad to be hostile and not glad that the world has been good to him. Rationalization makes him repress his true feelings. He is also satisfied to have a wall between him and the world, but rationalization makes him desire—artificially, so to say—its disappearance. When he speaks about owing something to the world and about his wish to repay he is true to himself. But when asked how he could repay for his birth, he says "If I did repay I would still be unsatisfied because I would owe for unpayable services—evolution, civilization, life, experience, speech")

When asked suddenly "Is there really a wall between you and the world? You're mingling with people, etc"—he is taken aback and cannot answer at once. After a while he says "It is not a concrete wall, it is even worse, the separation is not even real"

"Things have lost their concreteness, objects are chimerical, sometimes the world appears like wood, other times like cotton"

"The economic depression helped me. I have opportunity to speak to people who used to be inaccessible. My fear of their power or pride is gone. They are inferior to me or at most at my level. They're licked."

"I didn't become aware of the battle raging inside of myself until a curious incident occurred. I had gone into a barber shop to shave. I sat down in the chair without noticing the barber. The barber had shaved me half way when I realized he was old and walked with a limp. No sooner did I see it than something started to boil within me. I couldn't bear to have the barber finish the shave. Showing a good deal of displeasure, I paid the man and left. On the outside I tried to understand my anger but it was useless. I couldn't go back. *I didn't want to break down the wall*, because then I wouldn't have any excuse and would be forced to acknowledge my own inconsistency."

Patients who talk that way may still be curable or amenable to some amelioration. And when improved, or when, after several conversations with the doctor, there is a tendency toward improvement, we hear them speak in the following manner:

"Yesterday for a moment people looked human and real. I mean, fear must have dropped off and the people appeared."

"I feel that the gray, flat appearance of things will change, that the wall blocking my clear, coherent thinking is breaking down. There will be a rapprochement between myself and the world. Although it may all be a midsummer night's mad dream. *The fear of people* has broken down to a remarkable degree. But I haven't even started to live or function yet."

"The veil is still there, but there is another personality in me that is fighting like hell to become free and tear aside the curtain that is *blocking off one half of the mind from the other*."

"The wall is changed into a mist."

"Never before have things appeared clearer and brighter. It's simply dazzling. I wonder if it is the crisp fine weather. But I am still reluctant to go to my office, because there I am an employee. I can go to a restaurant because there I am the patron."

"If only I could see myself through the eyes of others. It's surprising how bright the lights seem to be. Before, the world was hazy, but now, although it is not animated, although it has lost its lustre, and its gloss is gone or it is rubbed off, it is there, much clearer to me."

"It took me thirty years to discover that I have a body." (That was his age.)
"When I first came to the clinic I didn't

remember much of the past. Now I am much clearer and I remember everything."

"Everything begins to appear real. People have a distinction and significance they didn't seem to possess before."

"I wish to see people, but something doesn't let me."

In a worse, but still curable stage, we find expressions like these:

"I don't care to live, I am indifferent to my parents, I don't feel like working."

"It feels as if the earth is coming up and the sky is pressing down."

"Yesterday I was on a boat and I was afraid if something happened I couldn't get off."

"Today the whole day I feel like smashing something."

"Nothing is solid, solid things are soft."

"It feels hazy."

"I have a pain in the neck like something is clenching my head."

"I am terribly afraid in the subway. When I am in the train I want to get there quick, to arrive at once."

"I don't feel as if I am walking on this earth."

"As soon as I stepped on that sort of peninsula near the lake, in the park, I had a feeling of being closed up."

"Outdoors I feel lost."

"I am excited when meeting somebody. I feel funny in the presence of strangers. I can't talk to anyone, I am bashful and self-conscious, and yet I have a *high estimation of myself*. I am *tied up within myself*."

One patient says

"I am living with my two sisters."

"Do you like them?"

"Oh, I would feel bad if something should happen to them."

And when pressed, he confessed that he resented their presence and that he would be glad if they were dead.

In a still more advanced and more despaired condition, where a cure is doubtful, but possible, they speak thus:

"The problem I bring to you, Doctor, is that I have made an awful failure of the first twenty years of my life, and now I want to take steps to prevent a repetition of that failure."

"I feel an unreasonable self-discouragement."

"I experience a certain refusal to face things."

"I dislike my own company so much I would gladly be rid of it."

"The situation is horrible. I don't know why. I don't know why. I don't know what's the matter and I don't know what to

do I won't read for diversion, I won't join others, yet it's awful alone. What's the matter, I ask myself over and over and there is no answer"

"My inward sinking realization, daily growing, aggravates my condition and my mind runs as it chooses"

"I feel like in a daze Everything I do I do automatically It seemed to me my body is not as precious as it was As if I were two different persons I imagine my voice is not my own *Uninterested in people It's always myself, myself, myself* I have no mind of my own I can't realize it's me. I am drifting I don't care whether anybody is sick or dying I feel there are so many of me. I feel remote, distant"

"My head is somewhere else I look at my chin and nose to see if I am there I am in a different world Objects are very distant"

"I feel I can't think. The pressure in my head makes thinking very difficult."

"There is a cessation of the functioning of my mind."

"I am not master of myself I have no control over myself"

"People who are dead may be more alive to me than others who are alive, for instance Mozart" (Patient is a musician)

When patient is actually losing the grip on himself and feels the mental illness and darkness approaching it is pathetic to hear him implore for help Thus

"I don't know where I am I seem to be buried, buried from the world. It's terrible, I can't stand it I can't speak to people, I can't work As if I am walking with somebody else's legs I can't contact with people. I am separated from the world I can't go into the swing of things I can't see any friends My thoughts are buried. I walk much Why? To be away I have a feeling of unreality Oh,

it is paralyzing I buy five papers a day and throw them away without looking at them I can't break out of the shell As if there were a barrier between me and everybody else It's tough to be cut off from the rest of the world I do a lot of moaning at home I keep pent up the whole day Yes, I do have a girl, but I can't see her I'm not worthy of her Oh, doctor, help me, quick! Something is happening to me! What'll I do? Please!"

One patient, still more advanced, almost demented, most of the time in a state of confusion, can only say "I don't know" to all our questions, while his face is a blank His further way of expressing himself is to wander off without knowing where he is going One day he walked away from New York until, hungry, thirsty, and exhausted, he was found by the local police sitting in the grass, somewhere in Pennsylvania Such wanderings, when they occur in the lighter cases, as they did in a few of those quoted in this series, are also symbolic of their condition and speak volumes They went by train or motorcar from New York to California or other distant points, for no reason at all, stayed a day or two and returned This was a sort of running away from something, an escape into the unknown

In the worst disintegration the mind of such patients, now hopeless dementia praecox cases, is deteriorated or extinguished They do not speak at all—this time not because they do not care, as in earlier stages, but because they are unable—they understand nothing They pass into the night. They are living corpses

And yet, in many of these cases this extreme condition could have been prevented if treated in time and treated properly

611 W 158 St

A FREE CONVALESCENT CAMP

The New York Academy of Medicine announces that it has indorsed Dr S S Goldwater's plan for using land available on Welfare Island for a convalescent day camp for city patients unable to pay for care in convalescent homes

A tract of thirteen acres is now being cleared on the island, and until new structures in the city's hospital-building program encroach on the site, it is proposed that the land be used as a convalescent day camp, not only for island patients but for

other indigent patients recovering from acute illness

The location of the camp, which will be in eight separate units, each accommodating from fifty to seventy-five patients, will be close to the terminal of the Seventy-ninth Street ferry Arrangements will be made to issue free passes to patients residing in Manhattan, and patients residing on the other side of the East River will be expected to use the Queensboro Bridge Carfare will be paid for indigent persons

SERUM IN PNEUMONIA

That the physicians of the State may have concrete examples of different phases of anti pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti pneumococcus serum produced and distributed by it

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 7—Type II Pneumonia with Bacteremia

Report from the records of the Meadowbrook Hospital by S W Doskof, MD, Hempstead

"A woman, aged forty-nine, was admitted to the hospital because of acute edema of the glottis of two days duration. The second day after admission, the temperature which had been low-grade in character suddenly rose to 104° F accompanied by a severe rigor

"Examination showed temperature 104°, pulse 130, and respirations thirty-six. There was dullness to percussion, the breath sounds were diminished and many crepitant rales were present over the entire right base

"A sputum specimen and blood culture were obtained promptly. The sputum examination failed to reveal the presence of any of the more prevalent types though pneumococci were present which were classed as "Group IV." Accordingly, only general supportive treatment was instituted

"The following day, the second day after the development of pneumonia, the blood culture was reported as indicating a pneumococcus Type II bacteremia. By this time the patient had become cyanotic and acutely ill. She was placed in an oxygen tent. Concentrated Type II antipneumococcus serum (New York State Department of Health) was immediately obtained. There was a negative history with respect to previous serum administration or symptoms of allergy, and both the skin and eye tests were negative

"The first dose of serum consisting of 40,000 units diluted in 200 cc of physiological salt solution was given intravenously at 4 00 P M. The temperature was 104°. At 9 00 P M the temperature had risen to 105.8°, the patient was quite dyspneic and acutely ill appearing. At this time another 60,000 units of serum were given in the same manner as the first dose, excepting

that 250 cc of saline solution were used. Three and one-half hours later the temperature had fallen to 103° although the cyanosis remained. Another 40,000 units were given in the same manner as the first dose. All three doses of serum were well tolerated. Three and one-half hours later, at 4 00 A M, the temperature record showed a drop to 98.8° and there was improvement in color, respirations, and general condition. The following morning the temperature rose to 101° but was not sustained and fell by evening. The convalescence was complicated only by a mild psychosis of short duration"

As with the cases previously reported, this case serves to illustrate the dramatic effect of prompt and adequate serum administration under circumstances which would otherwise almost certainly have proved fatal. The case-fatality rate for untreated bacteremic pneumococcus Type II pneumonias is between seventy-five and eighty per cent, according to the most authentic observations

In addition, this case illustrates most effectively the value of blood cultures as a check, not only upon the severity of the infection, but even more upon the typing. So-called negative or inconclusive examinations in which Group IV pneumococci are reported are not infrequently misleading since such reports usually mean merely that pneumococci of an identifiable type have not been found under the conditions of the examination. In the case here reported, it is obvious that had the blood culture not been taken, there would have been no indication for giving serum and it is quite probable that the patient would not have survived. Most authorities go so far as to advise repetition of a "negative" or Group IV sputum examination in any case which presents a typical clinical picture of pneumococcus pneumonia since it has been fairly well established that the chance of such a case being due to pneumococci of a type for which serum is available is considerably better than sixty per cent

NEW YORK STATE JOURNAL OF MEDICINE

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EDITORIALS

What—and How Much?

The American Foundation Report has served to brush away some of the cobwebs that had settled about the subject of medical service through frequent repetition of certain clichés. Among the most sterile of these is "the availability of adequate medical care," for, as the Report points out, to date no one has advanced an acceptable definition of either "adequate" or "available" in this connection.

Obviously it is futile to discuss means of delivering adequate medical care until there is well-founded agreement on what constitutes adequacy in this field. It would be time and effort well spent if representative physicians and health officers got together in an attempt to arrive at a more or less precise definition.

Almost everyone would agree that adequate medical care must include the medical and surgical treatment of acute and chronic disease. It is when diagnostic aids and preventive services are reached, that ambiguity and sharp differences of opinion are encountered.

There is also need for an accurate definition of necessary medical care. In an imperfect world we are far more likely to achieve the essential than the adequate, and first efforts must be directed to securing the most necessary services for all.

As several Congressmen declared in

explanation of their attitude to a proposed Federal education law, it is unwise to create a demand for services that cannot be supplied. Tax sources are rapidly drying up under the excessive drains of recent years. With unemployment continuing in spite of business gains, there is little likelihood that we shall achieve the ideal in education, medicine or anything else in the near future. Our immediate objective must therefore be to see that essential services are available to all and that the public learns how to utilize existing facilities to the best advantage.

Still Worse

A new physiotherapy bill sponsored by Senator Feld threatens to make a bad situation worse. The present licensing provisions have been both stimulus and shield to violations of the Medical Practice Act. Under cover of their license, many registered technicians make diagnoses and treat patients independently, regardless of the law.

The logical remedy, since there are no schools in the state to train new registrants, is to abolish the licensing of lay physiotherapists altogether. Physicians and hospitals can and do train technicians according to their particular requirements. These unregistered as-

sistants are well-qualified for the tasks assigned to them and, without the incitant of a license, are content to abide by statutory restrictions

The new Feld Act takes a more nihilistic course. Since many lay technicians abuse their licenses and violate the law, Senator Feld proposes to revise the statutes to legalize their infractions. His bill permits registered physiotherapists to diagnose and treat disease without medical supervision.

Judged by the defeat of the osteopathy bill, the temper of the Legislature does not hold out much hope for the new Feld measure. An act of this kind is a direct and unwarranted attack on the standards of healing.

The medical profession, representing the best to date in medical education, is the first to admit deficiencies in its training. How much less fit are lay technicians with nothing approaching the physician's qualifications! To permit registered physiotherapists to diagnose and treat disease on their own responsibility would be virtual nullification of the Medical Practice Act.

Thanks to the Press

The medical profession desires to register its appreciation for the meritorious campaign of the *New York Post* in helping to extend the availability of antipneumococcic serum to the public of this State. Their campaign was well-conceived, and was useful news propaganda.

The *New York Times* of April 10 also deserves our sympathetic recognition. Its thoughtful editorial worthily maintains the high *Times* tradition.

The editorial attitude of the *New York Herald-Tribune* has often been both stimulating and sympathetic to organized medicine.

Medicine needs support from the intelligent portion of the public. We feel that it is an obligation on the part of all great newspapers to keep the public informed regarding various therapeutic measures and the general need for them.

The help of great newspapers to this end is welcome indeed. Too often therapeutic measures are available, but the public does not know how to get them, and the newspapers here can play a great educational role. On the other hand, legislators are often ready and willing enough to allocate money but they too do not know where it would be best expended. In the pneumonia campaign all elements cooperated to accomplish desired ends. Having the public welfare at heart, we would be remiss in our obligation did we not commend these great papers.

Pneumatology—Again?

It is somewhat deplorable that a much closer rapprochement does not exist between the departments of *Editorials* and *Correspondence* of our JOURNAL—else we would not have to irritate our readers by referring them to a previously printed letter to the JOURNAL.¹ We quote! "In the name of consistency however, if our interpretation is to convey 'Alice 'n Wonderland' impressions, we would suggest that the Surgeon remain a barber and that the Physician limit himself to the use of physic." We unquote. Now, laying aside all partiality, is this cricket? Of vastly more importance, however, from the standpoint of Organized Medicine, is it prudent to antagonize the Organized Tonsorial Artists of America by intimating, even though truthfully, that there *are* surgeons who could out-barber a barber? The question warrants judicial consideration,—even a five to four decision might help,—but would it avert a sit-down resentment of such intentions?

The letter also suggests "that the Physician limit himself to the use of physic." Well, what the—, (skip it) else does he do? According to an accepted lexicon of the language used in these United States²—"physic," the noun, mind you, conveys the meaning of the "art of healing diseases, the art

¹ N. Y. STATE JOUR. OF MED., page 675, April 1, 1937.

² Webster's Unabridged International Atlas

of medicine and of therapeutics" We know that there are other definitions, thank you, but they are in the two, three, four, et cetera class

Enough of this balderdash! We really, but honestly, and with our full heart sympathize with the plight of the Anesthetists in finding a new name for themselves Nevertheless, must their beagle-nosed dispensers of induced insensibility foist a sesquipedalian terminology upon us so that the guileless may not be gudgeoned by a guiser? Now figure this out, you name hunters!'

CURRENT COMMENT

"* * * AMONG THE MAJORITY of our doctors * * * it seems fair to say that it is sincerely felt that 'adequate medical care' should be brought into line with social and other changes by evolutionary and not by revolutionary methods It is no selfish interest in a living, certainly, but the profoundest concern for the best traditions of the profession and for the welfare of all of us which guides the doctors to somewhat this conclusion"—A friendly salute from *The New York Herald Tribune* of April 4

"* * * IT IS THE INDIGENT patient whose situation demands attention True, the pauper can always get medical services, but they are given usually at the expense of private physicians

"If the government wishes to devise ways and means of improving conditions in medicine, let it forget about schemes to give free treatment to those who can pay for it and concentrate instead on providing funds for the care of patients who need medical attention but can't pay for it after they get it. * * *"—*Medical Economics*, April 1937

"MUCH LOOSE TALK, SPECULATION, and idle guess has surrounded the status of the physician during the depression That many have borne a stupendous overload of work is within everyone's personal knowledge Those who invested in stocks, bonds and mortgages suffered the common loss But how many were rendered destitute? How many lost their professional means of support?

"Figures for 1935 as reported for the Works Progress Administration by Harry L Hopkins are '675 physicians, surgeons and dentists,' who received government aid Let the significance of these figures dawn on those who advocate sickness insurance and state medicine as offering economic security, in the comparison shown herewith of aid rendered in the same period to the other professional and technical workers as shown in the same report

Total Prof and Tech Workers	82,000
Teachers	20,000
Musicians and Music Teachers	15,000
Nurses	6,800
Engineers	6,200
Draftsmen	4,500
Actors	3,800
Clergymen and Religious Workers	3,000
Artists	2,900
Chemists, Assayists, Metallurgists	800
Reporters, Editors	1,400
Physicians, Surgeons, Dentists	675

"If state medicine and sickness insurance offer gilt-edged, ne plus ultra, double back-acting economic security as claimed, why the 20,000 teachers, 24+ % of the total? The *Journal* of the American Medical Association, Feb 20, 1937, answers 'It now appears that the security offers is a delusion'

"We have the impression that many members of the profession have heeded the siren song of the security harpies in their passage through the recent straits To such we offer this report as earwax in case they continue to be tempted"—The editor of the *Westchester Medical Bulletin* for April answers the question as to "What are the Facts" in his editorial so headed

"ONE NEVER HOPES TO PINION the wings of the fraudulent cults and quacks who, like hawks, swoop down to bring destruction in their wake. But what about the victims? No lunatic would ask a barber to make him a pair of shoes or a shoemaker to build him a wardrobe Yet a seemingly normal man or woman ignores those who are giving their lives to the study and cure of human ills, and places his or her life in the hands of those who have no more knowledge of the anatomy and pathology of the human being than does a shoemaker about wardrobe making or a barber about making shoes"—From a recent issue of *American Medicine*

"* * * THE FUNDS OF THE SOCIAL insurance organization should not be used to help out a deficit in the government budget,

because there will be no money left when the period arrives to pay for old age insurance. There has been much criticism of the unwise investment of social insurance funds in securities and real estate of doubtful cash value"—Criticism of the French social insurance law by one of the insured, brought to us by the Paris correspondent to the *JAMA*, April 10, 1937

"THE STORY OF WAITER REED, Carlos Finlay, Jesse Lazear and Aristides Agramonte and the American soldiers who permitted themselves to be inoculated by stegomyia mosquitos has been so deeply impressed on the public mind that yellow fever, once a scourge, was supposed to be conquered. Havana, which had never been free from the disease for two centuries, became a veritable health resort after Gorgas cleaned it up. So with other tropical cities. Now comes the Rockefeller Foundation with the announcement that

yellow fever is not yet under complete control * * *

"Though 'finis' cannot yet be written to the story, it would be grossly untrue to say that the scientists have failed in their struggle. The tale of Reed and his associates will always remain one of the epics of medicine—an epic which for devotion and utter selflessness has not its equal in fiction. The sober statement that comes from the Rockefeller Institute is part of that epic. It helps to restore faith in a humanity which has not been acquitting itself with honor in Abyssinia, Spain and other parts of the world. Contrast the military and economic record of greed and cruelty with what the heroes of medicine have done and consider the honest proclamation of ignorance of a menace still to be overcome—it looks as if homo sapiens were not wholly lost, as if he had his fine moments"—From an editorial in *The New York Times* of April 13

ITALY'S VICTORY OVER TROPICAL DISEASE

Dr. Aldo Castellani, to whom Mussolini and the King of Italy gave credit for keeping the Italian Army in Ethiopia in good health, has returned to resume his work at Louisiana State University, where he is Professor of Tropical Medicine.

Professor Castellani, who is an Italian Count and a member of the Italian Senate, holds numerous other posts and titles in many countries. He was knighted by King George V in 1928, is head of the Ross Institute of Tropical Medicine in England and of the Royal Institute of Tropical Medicine in Rome. He is a commander of the Italian Army and Navy Medical Corps and was High Commissioner of Sanitation in East Africa. There, with the most modern medical organization ever assembled in a colonial war, he kept the 500,000 Italian soldiers in Eritrea and Somaliland virtually free of the scourges that usually fall on expeditionary forces in tropical lands.

For the war period, from Oct. 3, 1935, to May 9, 1936, approximately 500,000 Italian troops, not counting native regiments, served in Africa. During this time only twenty-two officers and 577 men died of disease or "any other cause exclusive of battle and death by any means at the hand of the enemy."

Professor Castellani pointed out that the Italian expeditionary force lost in battle

119 officers and 980 men, a total of 1,099, and added that "in all previous wars disease deaths were at least double the number of battle deaths."

"This is the first colonial war in which the proportion has been reversed," he declared. "There may have been an element of luck, but luck cannot have been the major factor. The principal reasons were organization, and the early realization of the head of the Italian Government that medical supplies and equipment were of first importance. These supplies were in all cases given precedence over ordnance."

Professor Castellani said he had known in other wars of battalions "95 per cent hors de combat" as a result of malaria, but of the 500,000 Italian troops there were only 1,241 cases of primary malaria, 1,093 relapse cases, and 23 deaths. This low rate of infection was the result of the universal use of quinine, ten grains being given each soldier every day. There were only 453 cases of dysentery and no deaths, and no typhus whatever, due largely to the fact that most of the troops fought and marched stripped to the waist, and thus were fairly free of lice.

Professor Castellani said the health of native troops fighting with the Italian army was also "satisfactory, nearly as good as that of the white troops, but not quite."

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked private. All communications must carry the writer's full name and address which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Thanks from Seattle

543 Stimson Building,
Seattle, Wash

To the Editor

My reason for writing you is to express my appreciation of the reference to me which appears on page 318 of the February 1 issue of your journal. It was very considerate of you to call to the attention of your readers the friendly gesture made toward me by my fellow practitioners in Seattle. It was a satisfaction to be able to enjoy the kind expressions of my many medical friends while still in this life instead of deferring it until after my departure, when a question might arise as whether or not I could appreciate the friendly post mortem sentiments which might be expressed.

It is a real satisfaction to have functioned as a doctor for half a century and still be able to navigate and participate in the functions of my fellow practitioners. After listening to the complimentary and friendly sentiments expressed on this occasion, I replied that it seemed to me I could not recall circumstances justifying all of their kind viewpoints. I assured them, however, that during the next quarter century I would endeavor to justify the complimentary attitude which they assumed toward my past performances. Perhaps I may be able to accomplish something along this line.

CLARENCE A SMITH, M D

February 13, 1937

Condemnation

929 Marcy Ave.,
Brooklyn

To the Editor

You have been accused before of pro-Nazi sympathies. Now I condemn you for it. In your April 1 issue, under your section of Travel and Resorts you prominently give the German Tourist Co. an extraordinary write up, inviting your readers to visit Naziland, using the title "Germany makes it Easier for the Tourist." In the same issue you carry an "ad" of the German Arnold Bernstein Line, the owner of which the German officials sought to arrest and to

confiscate his steamship line just because he belongs to the non-Aryan race.

As a member of the State Society I condemn your practice of antagonizing the membership who look upon the German interests as outlaws of our society, by your pro-Nazi propaganda. This sort of thing must stop otherwise it will be dragged out into the open discussion, if it has not already been done so.

You may publish this note. This is an expression of hundreds of members.

NAT KANNER, M D

NOTE Many of your advertisers are non-Aryan too

April 3, 1937

A Correction

27 E 62 St, New York City

To the Editor

On February 15, 1937, I forwarded to you material for an Editorial on "Fracture First Aid on the Highways."

Dr R H Kennedy has just called my attention to the second section of your Editorial, April 1 number, page 668, second column, paragraph 4, which states "At these highway stations, there will be trained medical personnel." This I think is a typographical error, because these stations will not be supplied with medical personnel, but with personnel trained by medical men. This may have been misinterpreted from my manuscript, page 2, line 11, "Their medical personnel has trained the custodians of these stations in first aid and its application."

I wonder if you could find some means of correcting this misstatement. The doctors of New York State have objected to first aid being given by attendants trained in first aid rather than by medical men. It is obvious that the stations cannot be manned by medical men nor that medical men will be the first to handle these cases.

DOUGLAS GORDON, M D

April 13, 1937

NOTE We gladly publish the above, which is self-explanatory and will also correct any misconception caused by our editorial — Editor

Scientific Program

All Meetings Will Be Held by Standard Time

GENERAL SESSIONS

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—2 00 P M

Symposium "The Relief of Intractable Pain"

1 "PSYCHIC FACTORS IN PAIN"

Louis Casamajor, M D, Professor of Neurology, Columbia University, *New York*

2 "SOMATIC PAIN"

a Trigeminal and glossopharyngeal neuralgias

b Pain due to malignant disease"

Byron Stookey, M D, Professor of Neurological Surgery, Columbia University, *New York*

3 "SYMPATHECTOMY FOR THE RELIEF OF CARDIOVASCULAR PAIN"

James C White, M D, Assistant Professor in Surgery, Harvard Medical School, *Boston, Mass* (invited guest)

Wednesday, May 26—2 00 P M

Symposium "The Blood"

1 "MECHANISMS OF HEMOGLOBIN PRODUCTION AS INFLUENCED BY VARIOUS FACTORS UNDER EXPERIMENTAL CONDITIONS"

George H Whipple, M D, Dean of Rochester School of Medicine and Dentistry, *Rochester*

2 "ERYTHROCYTE FORMATION, WITH ESPECIAL REFERENCE TO PATHOLOGICAL VARIATIONS IN ANEMIA"

William B Castle, M D, Associate Professor of Medicine and Chairman of Medical Dept, Harvard Medical School, *Boston, Mass* (invited guest)

3 "THE LEUKOCYTES, THEIR BEHAVIOR IN VARIOUS PATHOLOGICAL STATES"

Cyrus C Sturgis, M D, Professor of Medicine, University of Michigan, Director of Thomas Henry Simpson Memorial Institute, *Ann Arbor, Mich* (invited guest)

THE SECTIONS

[All papers read before the Society by members become the property of the Society. The original copy of each paper shall be left with the Secretary of the Section. Discussers should have their remarks typed and hand them to the Secretary if they wish them published. Section meetings shall begin promptly at the hour specified.]

SECTION ON MEDICINE

Chairman
Secretary

Charles D Post, M D, Syracuse
Ralph H Boots, M D, New York

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "THE NERVOUS FACTORS IN PEPTIC ULCER"

Asher Winkelstein, M D, *New York*

Discussion opened by H Walden Retan, M D, *Syracuse*, and Abraham H Aaron, M D, *Buffalo*

2 "MODE OF DEATH AND ANALYSIS OF FATAL CASES IN CORONARY ARTERY THROMBOSIS"

Arthur M Master, M D, *New York*
Harry L Jaffe, M D, *New York*
Simon Dack, M D, *New York*

Discussion opened by Clayton W Greene, M D, *Buffalo*, and Carl S Benson, M D, *Binghamton*

3 "USES OF PROTAMINE ZINC INSULIN"

W R Campbell, M D, *Toronto, Ontario* (invited guest)

Discussion opened by William A Groat,

M.D., *Syracuse*, William W Hall, M.D., *Watertown*, Charles B Gibbs, M.D., *Rochester*, and Harry G Jacobi, M.D., *New York*

Wednesday, May 26—10 00 A M

1 "GLOMUS TUMOR"

Samuel J Stabins, M.D., *Rochester*

Discussion opened by Carroll J Roberts, M.D., *Buffalo*

2 "TREATMENT OF POLYCYTHEMIA VERA"

Kenneth R McAlpin, M.D., *New York* Catherine Edsall Smith, B.S., *New York* (invited guest)

Discussion opened by William B Castle, M.D., *Boston, Mass* (invited guest)

3 "TREATMENT OF NEPHRITIC HYPERTENSION WITH A DIURETIC AGENT OBTAINED FROM THE ANIMAL KIDNEY"

Benjamin Jablons, M.D., *New York*

Discussion opened by Herman O Mosenenthal, M.D., *New York*, and Frederick M Allen, M.D., *New York*

4 "THE PROBLEM OF PERIPHERAL VASCULAR DISEASE"

Arthur N Curtiss, M.D., *Syracuse*

Discussion opened by J Herbert Conway, M.D., *New York*, and Herman E. Pearse, Jr., M.D., *Rochester*

SECTION ON SURGERY

Chairman
Secretary

Thomas M Brennan M.D., *Brooklyn*
Benjamin W Seaman, M.D., *Hempstead*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "NEWER CONCEPTIONS OF THE PATHOGENESIS AND MANAGEMENT OF TUBERCULOUS EMPYEMATA"

Pol N Coryllos, M.D., *New York*

Discussion opened by Edward S Welles, M.D., *Saranac Lake*, and Leon J Leahy, M.D., *Buffalo*

2 "SURGICAL ASPECT OF COLO-ILEITIS AND NON-SPECIFIC ULCERATIVE COLITIS"

Albert Ashton Berg, M.D., *New York*

Discussion opened by John C M Brust, M.D., *Syracuse*, and Henry W Cave, M.D., *New York*

3 "IMPORTANT PROBLEMS IN THE DIAGNOSIS AND MANAGEMENT OF THYROID DISEASE"

George E Beilby, M.D., *Albany*

Discussion opened by Raymond P Sullivan, M.D., *New York*, and Arthur S McQuillan, M.D., *New York*

Wednesday, May 26—10 00 A M

1 "THE PRESENT STATUS OF THE

TREATMENT OF MAMMARY CANCER BY SURGERY AND IRRADIATION"

Frank E Adair, M.D., *New York*

Discussion opened by Francis W Currin, M.D., *Brooklyn*, William H Wehr, M.D., *Buffalo*, and Donald S Childs, M.D., *Syracuse*

2 "CANCER OF THE RECTUM AND RECTO-SIGMOID JUNCTION"

Jerome M Lynch M.D., *New York*

Discussion opened by Descum C McKenney, M.D., *Buffalo*, Albert G Swift, M.D., *Syracuse*, and Percival K. Menzies, M.D., *Syracuse*

3 "INJECTION TREATMENT OF HERNIA"

Bradley L Coley, M.D., *New York*

Discussion opened by Howard L Prince, M.D., *Rochester*, and Chas Gordon Heyd, M.D., *New York*

4 "SURGICAL TREATMENT OF CARCINOMA OF THE OESOPHAGUS"

John H Garlock, M.D., *New York*

Discussion opened by Robert F Barber, M.D., *Brooklyn*, and W J Merle Scott, M.D., *Rochester*

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman
Secretary

Nelson B Sackett, M.D., *New York*
Goode R Cheatham, M.D., *Endicott*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "AUTO BLOOD TRANSFUSION IN ECTOPIC PREGNANCY"

Arthur J Wallingford, M.D., *Albany*

Discussion opened by Lillian K. P Farrar, M.D., *New York*

2 "INCONTINENCE OF URINE IN THE FEMALE SPHINCTER MECHANISM AND CONTROL LOSS AND RESTORATION"

William T Kennedy, M D, *New York*

Discussion opened by Henry Dawson Furniss, M D, *New York*

3 "ROENIGLN PELVIMETRY A CLINICAL STUDY"

Claude E Heaton, M D, *New York*

Discussion opened by Walter W Fray, M D, *Rochester*

Wednesday May 26—10 00 A M

1 "ETIOLOGICAL FACTORS IN HUMAN

FEMALE STERILITY"

Charles P Sheldon, M D, *Albany*

Discussion opened by Karl M Wilson, M D, *Rochester*

2 "VESICO-VAGINAL FISTULAE THEIR CAUSE AND CURE"

Noiman F Miller M D, *Ann Arbor, Mich* (invited guest)

Discussion opened by Nathan P Sears, M D, *Syracuse*

3 "SOME UNUSUAL COMPLICATIONS ASSOCIATED WITH ABRUPTIO PLACENTAE"

Edward C Hughes, M D, *Syracuse*, and Albert W Van Ness, M D, *Syracuse*

Discussion opened by Shirley R. Snow, Jr, M D, *Rochester*

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman

Secretary

Lloyd H Ziegler, M D, *Albany*

Charles A McKendree, M D, *New York*

Place of Meeting Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "MELANOSIS OF THE MENINGES REPORT OF CASE WITH NECROPSY FINDINGS"

Isaac Shapiro, M D, *Schenectady*

Discussion opened by Victor C Jacobsen M D, *Troy*

2 "EXPERIENCES OF A PSYCHIATRIST IN THE POLICE COURT"

Richard C A Jaenike, M D, *Rochester*

Discussion opened by R Montfort Schley, M D, *Buffalo*

3 "LESIONS OF THE OPTIC CHIASM FOLLOWING HEAD TRAUMATA A REPORT OF CASES"

Eldridge H Campbell, Jr, M D, *Albany*

Discussion opened by Paul H Garvey, M D, *Rochester*

4 "PUBLIC HEALTH ASPECTS OF MENTAL HYGIENE"

Frederick W Parsons, M D, *Albany*

Discussion opened by Edward S Godfrey, Jr, M D, *Albany*

Wednesday, May 26—10 00 A M

1 THE CHAIRMAN'S ADDRESS "TEACHING NEUROLOGY TO UNDERGRADUATE MEDICAL STUDENTS"

Lloyd H Ziegler, M D, *Albany*

2 "A CASE OF HEMIBALLISMUS MOTION PICTURE PRESENTATION AND NECROPSY FINDINGS"

Hugh S Gregory, M D, *Binghamton*

Discussion opened by Edward A Sharp, M D, *Buffalo*

3 "PSYCHIC STATES ASSOCIATED WITH HYPERGLYCEMIA"

Eugene N Boudreau, M D, *Syracuse*

Discussion opened by Albert G Odell, M D, *Clifton Springs*, and George E. Daniels, M D, *New York*

4 "FURTHER OBSERVATIONS ON HYPOLYCEMIC SHOCK THERAPY"

Bernard Glueck, M D, *Ossining-on Hudson*

Discussion opened by Joseph Wortis, M D, *New York*

SECTION ON PEDIATRICS

Chairman

Vice-Chairman

Secretary

Frank J Williams, M D, *Albany*

John Dorsey Craig, M D, *New York*

Paul W Beaven, M D, *Rochester*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "PNEUMONIA IN STILLBORN AND NEWBORN INFANTS"

Margaret Warwick, M D, *Buffalo*

Discussion opened by Douglas P Arnold, M D, *Buffalo*

2 "CRYPTORCHIDISM"

James B Hamilton, Ph D, *Albany*
(invited guest)

Discussion opened by John E. Heslin, M D, *Albany*

3 "PERSISTENT VOMITING IN EARLY LIFE, WITH SPECIAL REFERENCE TO OBSTRUCTIONS OF THE GASTROINTESTINAL TRACT"

Samuel W Clausen, M D, *Rochester*

Discussion opened by John J Morton, Jr, M D., *Rochester*

Wednesday, May 26—10 00 A M

1 "A CONSIDERATION OF ACCIDENTAL

SMALLPOX VACCINATION AND ECZEMA VACCINATUM"

Gaylord W Graves, M D, *New York*

Discussion opened by Donald D Posson, M D, *Rochester*

2 "IRON DEFICIENCY ANEMIA IN INFANTS AND CHILDREN"

Louis K. Diamond M D, *Boston*,
Mass (invited guest)

Discussion opened by William L Bradford, M D, *Rochester*

3 "IS VITAMIN C DEFICIENCY A FACTOR IN RHEUMATIC FEVER"

Albert D Kaiser, M D, *Rochester*

Discussion opened by Marshall C Pease, M D, *New York*

4 "CONGENITAL SYPHILIS, A THREE YEAR SURVEY IN SYRACUSE"

C George Murdock, M D, *Syracuse*

Discussion opened by Wildridge C Thompson, M D, *State Department of Health, Albany*
(invited guest)

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman
Secretary

Albert R McFarland, M D, *Rochester*

Harry C Saunders, M D, *New York*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 PRELIMINARY REPORT OF THE WORKMEN'S COMPENSATION ADVISORY COMMITTEE ON INDUSTRIAL DERMATOSES

Herman Sharlit, M D, Chairman,
New York

2 "MOAIC WART AN UNUSUAL TYPE OF PLANTAR WART"

Andrew H Montgomery, M D, *New York*,
and Royal M Montgomery, M D,
New York

Discussion opened by Mark Heiman, M D,
Syracuse

3 "INFECTIONS OF THE SKIN DUE TO MONILIA ALBICANS DIAGNOSTIC, IMMUNOLOGIC AND THERAPEUTIC CONSIDERATIONS"

George M Lewis, M D, *New York*,
and Mary E Hopper, M S, *New York*
(invited guest)

Discussion opened by Herbert H Bauckus,
M D., *Buffalo*

4 "HYDROA AESTIVALE IN A CASE OF CONGENITAL PORPHYRIA WITH RED BROWN TEETH AND HIRSUTIES"

Clarence H Peachey, M D, *Rochester*,
and William H Strain, Ph D (invited
guest)

Discussion opened by Edward R. Maloney,
M D, *New York*

Wednesday, May 26—10 00 A M

1 "DERMATITIS DUE TO BISMUTH COMPOUNDS, ACCOMPANIED BY CUTANEOUS SENSITIVITY TO THE ARSENOBENZOLS"

James W Jordan, M D, *Buffalo*, and
Harold L Walker, M D, *Buffalo*

Discussion opened by Paul Gross, M D,
New York

2 "SKIN LESIONS OBSERVED IN GONOCOCCAL INFECTIONS WITH A REPORT OF A CASE."

Oscar L Levin, M D, *New York*
Seymour H Silvers M D, *Brooklyn*

Discussion opened by Harry Day Parkhurst, M D, *Utica*

3 "UNUSUAL MANIFESTATIONS OF THE SKELETAL SYSTEM IN SECONDARY SYPHILIS"

Ben A Newman, M D, *New York*,
and Harry C Saunders, M D, *New York*

Discussion opened by Richard L Saunders,
M D, *Buffalo*

4 "THE PRESENT STATUS OF LYMPHO-
GRANULOMA VENEREUM"

David Bloom, M D, *New York*

Discussion opened by Rudolph Ruedemann,
Jr, M D, *Albany*

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman

Secretary

Walter S Atkinson, M D, *Watertown*

Marvin F Jones, M D, *New York*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—9 00 A M

Instruction Hour 9 00 A M to 10 00 A M

"THE RECIPROCAL DEPENDENCE OF
REFRACTION AND MUSCLE TESTS"

James W White, M D, *New York*

1 "THE SURGICAL TREATMENT OF
STRABISMUS"

John H Dunnington, M D, *New York*

Discussion opened by John F Gipner, M D,
Rochester, and Frank M Sulzman, M D,
Troy

2 "THE MANAGEMENT OF INTRAOCULAR
FOREIGN BODIES"

David F Gillette, M D, *Syracuse*

Discussion opened by Algernon B Reese,
M D, *New York*, and Morris H Newton,
M D, *Little Falls*

3 "INTRACAPSULAR EXTRACTION OF
CATARACT WITH IRIDOTOMY"

Franklin Bracken, M D, *New York*

Discussion opened by Thurber LeWin, M D,
Buffalo, and Lawrence E Henderson, M D,
Watertown

Wednesday, May 26—9 00 A M

Instruction Hour 9 00 A M to 10 00 A M

"HISTOPATHOLOGY OF EAR, NOSE AND
THROAT"

Andrew A Eggston, M D, *New York*

1 "DIFFERENTIATION BETWEEN RECED-
ING AND PROGRESSING CASES OF
PETROSITIS"

Ralph Almour, M D, *New York*

Discussion opened by Melvin J Stearns,
M D, *Ogdensburg*

2 "SOME OBSERVATIONS OF THE EFFECT
OF MALE HORMONE UPON THE NASAL
MUCOSA OF MAN AND MONKEY"

Harry K Tebbutt, M D, *Albany*

Discussion opened by D'Arcy McGregor,
M D, *Buffalo*, and Leonard W Jones, M D,
Rochester

3 "ACUTE PHARYNGEAL STENOSIS"

Roy S Moore, M D, *Syracuse*

Discussion opened by Austin G Morris,
M D, *Rochester*, and Clayton M Brown, M D,
Buffalo

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

Chairman

Secretary

Thomas P Farmer, M D, *Syracuse*

Burke Diefendorf, M D, *Ticonderoga*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "NEGLECTED HEALTH FACTORS IN
OUR PUBLIC SCHOOLS"

William Rosenson, M D, *New York*

Discussion opened by Dean F Smiley, M D,
Ithaca

2 "THE IMPORTANCE OF CERTAIN AGE
GROUPS IN TUBERCULOSIS CASE FIND-
ING AMONG CHILDREN"

Marion F Loew, M D, *New York*

3 "COMPARATIVE VALUES OF THE

TUBERCULIN TEST OF SCHOOL CHILD-
REN"

George W Weber, M D, *Albany*, (in-
vited guest)

Discussion opened by George C Ruhland,
M D, *Washington, D C* (invited guest) and
William J Ryan, M D, *Pomona*

4 "RELATIONSHIP OF THE PHYSICIAN
AND HEALTH OFFICER TO THE CHILD
HEALTH PROGRAM"

John Dorsey Craig, M D, *New York*

Discussion opened by Edward J Wynkoop,
M D, *Syracuse*

Wednesday, May 26—10 00 A M

1 "VENEREAL DISEASE CONTROL PROGRAM IN NEW YORK CITY"

John L Rice, M D, *New York*

Discussion opened by Edward S Godfrey, Jr, M D, *Albany*, David J Kaliski, M D, *New York*, and William A Brumfield, Jr, M D, *Albany*

2 "THE COMPLEMENT FIXATION TEST AS A DIAGNOSTIC AID IN THE CONTROL OF GONORRHEA"

Emily D Barringer, M D, *New York*

3 "THE CULTURE METHOD FOR THE DIAGNOSIS OF GONOCOCCAL INFECTION MOTION PICTURE DEMONSTRATION IN COLOR"

Charles M Carpenter, M D, *Rochester*

Discussion opened by Orren D Chapman, M D, *Syracuse*

4 "INFLUENZA"

Thomas Francis, Jr, M D, *New York*

Discussion opened by Augustus B Wadsworth, M D, *Albany*, and Russell L Cecil, M D, *New York*

SECTION ON UROLOGY

Chairman

Vice-Chairman

Secretary

Fedor L Senger, M D, *Brooklyn*

Albert M Crance, M D, *Geneva*

Francis N Kimball, M D, *New York*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "PROSTATIC DISEASE, DETERMINATION OF THE METHOD OF TREATMENT"

Roy B Henline, M D, *New York*

Discussion opened by J Sturdivant Read, M D, *Brooklyn*

2 "THE ACCURATE TREATMENT OF BLADDER DISEASES"

Thomas J Kirwin, M D, *New York*

Discussion opened by John H. Powers, M D, *Cooperstown*

3 "UROGENITAL TUBERCULOSIS IN INFANTS AND CHILDREN"

Meredith F Campbell, M D, *New York*

Discussion opened by Paul M Butterfield, M D, *New York*

Wednesday, May 26—10 00 A M

1 "THE CURE OF HYDROCELE BY INJECTION"

Louis H Baretz, M D, *Brooklyn*

Discussion opened by Allan L. Parlow, M D, *Rochester*

2 "THE MORPHOLOGY OF THE ABNORMAL NEPHRON"

Jean Oliver, M D, *Brooklyn* (invited guest)

Discussion opened by Russell S Ferguson, M D, *New York*

3 "REMOTE PRIMARY MANIFESTATIONS IN URINARY TRACT MALIGNANCY"

Ernest M Watson, M D, *Buffalo*, and Carl J Leutenegger, M D, *Buffalo*

Discussion opened by E Earle Shouldice, M D, *Toronto, Canada* (invited guest)

SECTION ON RADIOLOGY

Chairman

Vice-Chairman

Secretary

James M Flynn, M D, *Rochester*

Clifford R Orr, M D, *Buffalo*

William P Howard, M D, *Albany*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

1 "DUODENAL STASIS, ITS DIAGNOSIS AND TREATMENT"

John M Barnes, M D, *Buffalo*, and Daniel E Stedem, M D, *Kenmore*

2 "THE MANAGEMENT OF MEDIASTINAL HODGKINS DISEASE"

Ross Golden, M D, *New York*, and Haig H Kasabach, M D, *New York*

3 "MALIGNANT AND BENIGN LESIONS OF THE SMALL BOWEL"

William E Howes, M D, *Brooklyn*

4 "THE ROENTGEN KYMOGRAPHIC EXAMINATION OF THE HEART"

I Seth Hirsch M D, *New York*

- 5 "THE DIAGNOSIS AND THE TREATMENT OF BENIGN AND MALIGNANT LESIONS OF THE BREAST"

Louis C Kress, M D, *Buffalo*

Wednesday, May 26—10 00 A M

- 1 "THE ROENTGEN FINDINGS OF RENAL TUBERCULOSIS"

Henry K Taylor, M D, *New York*,
and Leonard P Wershush, M D, *New York*

- 2 "A NEW METHOD OF ROENTGEN DOSAGE AND ITS INDICATIONS"

Ralph E Herendeen, M D, *New York*

- 3 "THE CORRELATION OF ROENTGENOLOGICAL AND PATHOLOGICAL FINDINGS IN ORGANIC GASTRIC LESIONS"

Lewis Gregory Cole, M D, *New York*

- 4 "IRRADIATION FOR STIMULATING OR SUPPRESSING MENSTRUAL FUNCTION"

Ira I Kaplan, M D, *New York*

- 5 "RADIOLOGY AND THE RADIOLOGIST OF THE FUTURE"

Frederic E Elliott, M D, *Brooklyn*

SECTION ON INDUSTRIAL MEDICINE AND SURGERY

Chairman
Secretary

Cassius H Watson, M D, *New York*
Frederick S Wetherell, M D, *Syracuse*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

- 1 "THE THYROID GLAND FROM THE STANDPOINT OF PREEMPLOYMENT APPRAISAL OF THE APPLICANT FOR WORK"

Emil Goetsch, M D, *Brooklyn*

Discussion opened by William S McCann, M D, *Rochester*

- 2 "THE TREATMENT OF THE INDUSTRIAL BURN"

John J Wittmer, M D, *Brooklyn*

Discussion opened by Dan Mellen, M D, *Rome*

- 3 "THE EXTENT OF PLUMBISM IN THE COMMUNITY, PARTICULARLY FROM THE STANDPOINT OF THE INDUSTRIAL WORKER"

Irving Gray, M D, *Brooklyn*

Discussion opened by Robert K. Brewer, M D, *Syracuse*

Wednesday, May 26—10 00 A M

- 1 "BED REST FOR BACK INJURIES"

Edward T Wentworth, M D, *Rochester*

Discussion opened by Richard S Farr, M D, *Syracuse*

- 2 "THE SUPERVISION BY INDUSTRY OF COMPENSATION CASES"

John J Moorhead, M D, *New York*

Discussion opened by Ralph J McMahon, M D, *Endicott*

- 3 "THE PRACTICAL BRIEF PHYSICAL APPRAISAL OF THE PROSPECTIVE OUTSIDE PLANT EMPLOYEE"

Edward S McSweeney, M D, *New York*

Discussion opened by Benjamin J Slater, M D, *Rochester*

SESSION ON REGIONAL AND GENERAL ANESTHESIA

Chairman
Secretary

J Lewis Amster, M D, *New York*
S LeRoy Sahler, M D, *Rochester*

Place of Meeting, Rochester Chamber of Commerce

Tuesday, May 25—10 00 A M

- 1 "SPINAL ANESTHESIA, ITS USES AND ITS LIMITATIONS"

Orville C King, M D, *Philadelphia*,

Pa (invited guest)

Discussion opened by Harry Koster, M D, *Brooklyn*, and Robert B Hammond, M D, *White Plains*

- 2 "THE ORGANIZATION OF AN ANESTHETIC DEPARTMENT"

Emery A Rovenstine, M D, *New York*

Discussion opened by Charles J Wells, M D, *Syracuse*, and Paul M Wood, M D, *New York*

3 "ANESTHETIC MANAGEMENT OF SPECIFIC THYROID PROBLEMS"

Philip D Woodbridge, M D, *Boston*, *Mass* (invited guest)

Discussion opened by Donald Guthrie, M.D., *Sayre, Pa.*, (invited guest) and Hippolyte M Wertheim, M D, *New York*

4 "ANALGESIA AND ANESTHESIA IN OBSTETRICS"

Wesley Bourne, M D, *Montreal, Canada* (invited guest)

Discussion opened by James K Quigley, M D, *Rochester*

SESSION ON PHYSICAL THERAPY

Chairman
Secretary

Madge C L McGuinness, M D, *New York*
Harold J Harris, M D, *Westport*

Place of Meeting, Rochester Chamber of Commerce

Wednesday, May 26—10 00 A M

1 "THE INVESTIGATION OF APPARATUS BY THE COUNCIL ON PHYSICAL THERAPY"

Howard A Carter, M D, Secretary Council on Physical Therapy, A M A *Chicago, Ill* (invited guest)

2 "GENERAL ASPECTS AND NEW APPLICATIONS OF ELECTROPHORESIS IN PHYSICAL THERAPY"

Karl Harpuder, M D, *New York*
Discussion opened by Jacob J Levy, M.D., *Syracuse*

3 "PHYSICAL THERAPY IN RELATION TO INTERNAL MEDICINE"

Jacob Gutman, M D, *Brooklyn*

Discussion opened by Harold J Harris, M D, *Westport*, and Virginia S Tannenbaum, *Buffalo*

4 "RELIEF OF PAIN BY PHYSICAL MEASURES"

Richard Kovacs, M D, *New York*

Discussion opened by Peter Irving, M D, *New York*

5 "THE VALUE OF PHYSICAL THERAPY IN THE REHABILITATION OF SOME COMMON HAND CONDITIONS"

George G Martin, M D, *Buffalo*

Discussion opened by Dwight V Needham, M D, *Syracuse*, and Alfred L C Ulrich, M D, *Buffalo*

Scientific Exhibit

Place of Meeting, Rochester Chamber of Commerce

Dr Charles M Carpenter in Association with Dr Ruth A Boak, Alice D Leahy, Hester A Austin, Lucille Hawley and Harold F Wengatz, University of Rochester—School of Medicine and Dentistry

BACTERIOLOGICAL, THERMAL DEATH TIME AND SEROLOGICAL METHODS FOR THE DIAGNOSIS OF GONOCOCCAL INFECTIONS

Description Exhibit of media and supplies necessary for the routine bacteriological diagnosis of gonococcal infection by the cultural method. Smears properly stained for the gonococcus will be shown. Charts depicting the superiority of the cultural method over the smear method will be displayed.

Determination of Thermal Death Time of gonococcus at fever temperature

A special water bath used for the determination of the thermal death time of the gonococcus at 41.5°C and a method for carrying out the procedure will be shown.

A complement fixation test for the examination of a patient's serum for evidence of gonococcal infection will be demonstrated, also agglutination tests for classifying strains of the gonococcus.

Dr Stafford L Warren, University of Rochester, School of Medicine and Dentistry

THE EFFECT OF ARTIFICIAL FEVER

Description Artificial fever by the radiant

energy Characteristic temperature, pulse and respiration charts for various treatment periods Microphone and amplifier for magnifying heart sounds one million times their original volume Sound records of characteristic heart sounds during fever treatment and murmurs of various types of valvular disease

Thermal death time theory for gonococcus applied to treatment of gonococcal infections Tests on cultures from patients show length of fever treatment at 41.5°C necessary to kill the particular strain to be usually 12 to 18 hours, maybe as long as 30 hours

The combined effect of fever and roentgen radiation has a much greater killing power for rabbit epithelioma *in vivo* than either one alone Various dosage combinations will be illustrated, and microscopic and gross specimens shown

Tumor transplants of rabbit epithelioma were placed under windows made in the rabbit's ear Development of the capillary blood supply around the growing tumor transplant is shown in a display of photographs, many in natural color

Dr C A Elden, University of Rochester, School of Medicine and Dentistry

GYNECOLOGICAL EXHIBIT

Description Charts showing the results of progestin therapy in certain gynecological conditions

Dr Karl M Wilson, University of Rochester, School of Medicine and Dentistry

OBSTETRICAL EXHIBIT

Description A series of specimens and drawings illustrating some unusual obstetrical and gynecological conditions

Drs Leslie Sandholzer and Ralph Tittsler, University of Rochester, School of Medicine and Dentistry

BACTERIOPHAGY

Description Pictures illustrating bacteriophage action in various media and on various organisms Charts illustrating some of the properties of the lytic principle and its use in various infections Cultures and exhibits showing the action of bacteriophage and other lytic agents

Drs W O Fenn and J B Hursh, University of Rochester—School of Medicine and Dentistry

AN ELECTRICAL METHOD FOR RECORDING EYE MOVEMENTS

Description Electrodes are placed on the temples lateral to the eyes Potential dif-

ferences produced by movements of the eyes are recorded on a string galvanometer, the potential being proportional to the extent of the movements In this way movements of the eyes can be followed when the eyes are closed

Drs Nolan L Kaltreider and William S McCann, University of Rochester—School of Medicine and Dentistry

PULMONARY CAPACITY IN VARIOUS DISEASES

Description Summary charts of the total pulmonary capacity and its subdivisions of cases of obstructive emphysema, pulmonary fibrosis, bronchial asthma, thoracoplasty and artificial pneumothorax during lobar pneumonia are shown Various components of the pulmonary capacity are correlated to the degree of dyspnea Charts demonstrating the respiratory response during exercise in pulmonary fibrosis and emphysema are presented.

Dr William Bradford and Elizabeth Slavin, University of Rochester, School of Medicine and Dentistry

THE PHAGOCYTIC POWER OF THE BLOOD AND WHOOPING COUGH

Description The effect of the administration of immune blood upon phagocytosis of *H. pertussis* is shown by microscopic preparations Charts further illustrate the results of experimental studies Modification of the cough plate as used in this laboratory is shown as well as cultures of Phase I and of Phase IV organisms

Dr D J Stephens and Estelle E Hawley, Ph D, University of Rochester, School of Medicine and Dentistry

VITAMIN C STUDIES

Description Demonstration of various vitamin C preparations for oral and parenteral use and the vitamin C values of various foods Charts and tables will be shown demonstrating factors which influence the urinary excretion of vitamin C Studies of vitamin C saturation and excretion in normal subjects, in patients with scurvy and in patients with mild degrees of vitamin C deficiency will be shown

Dr R. Plato Schwartz and Associates, University of Rochester, School of Medicine and Dentistry

MECHANISM OF HUMAN GAIT

Description The clinical significance of recording human gait before and after treatment of causes for limitations in the ability to walk.

A robot which reproduces, in slow motion, the movements of the pelvis and right lower extremity in walking at the average rate of 18 steps per second

Drs William P Van Wagenen and Rowland Bellows, University of Rochester, School of Medicine and Dentistry

DISTURBANCES OF WATER METABOLISM ASSOCIATED WITH HYPOTHALMIC LESIONS, EXPERIMENTAL AND CLINICAL

Description Series of charts showing disturbances of water intake and output associated with pituitary tissues, congenital cysts of the hypophysis, tremors of the third ventricle, encephalitis affecting the third ventricles and experimental punctures of the floor of the third ventricle

Dr William R. J Wallace, University of Rochester, School of Medicine and Dentistry

FRACTURED JAWS

Description Charts, photographs and x-ray studies showing the methods and results in the management of jaw fractures

Drs George W Corner and Willard M Allen, University of Rochester, School of Medicine and Dentistry

THE HORMONE OF THE CORPUS LUTEUM

Description Drawings, photographs, graphs and specimens

Dr Edmund S Nasset, University of Rochester, School of Medicine and Dentistry

"A HUMORAL CONTROL OF INTESTINAL SECRETION"

Description Charts and graphs outlining the methods used in proving the presence of the humoral factor and the chemical procedure for its extraction from tissue

Dr D J Stephens, University of Rochester, School of Medicine and Dentistry

CLINICAL STUDIES OF THE BONE MARROW

Description A demonstration of histologic sections, photomicrographs, and differential counts of the bone marrow, showing the changes which take place in the bone marrow in various diseases

Dr Samuel H Bassett, University of Rochester, School of Medicine and Dentistry

METABOLIC STUDIES ON IDIOPATHIC STEATORRHEA.

Description Photographs and charts illustrating abnormalities in metabolism in idiopathic steatorrhea and cardiac disease

trating abnormalities in metabolism in idiopathic steatorrhea and cardiac disease

Dr E H Keutmann, University of Rochester, School of Medicine and Dentistry

STUDIES OF THE MECHANISM OF ALBUMINURIA

Description The effect of various factors on proteinuria have been studied and are illustrated graphically. The following procedures were found to influence proteinuria, the level of the protein in the diet, diuretics which cause increase of glomerular filtration, expanding the blood volume, increase in the protein content of the circulating plasma by transfusion of normal plasma

In all these variations three factors seem to govern proteinuria (1) the permeability of the glomerular capillaries (2) The rate of glomerular filtration (3) The amount of protein available for manufacture of serum proteins

Dr Herman E Pearse, University of Rochester, School of Medicine and Dentistry

TREATMENT OF INFECTIONS OF THE NECK AND THEIR COMPLICATION, MEDIASTITIS

Description Drawings and x-rays showing anatomical and pathological basis for surgical technique

Dr W J Merle Scott, University of Rochester, School of Medicine and Dentistry

SURGERY OF THE SYMPATHETIC NERVOUS SYSTEM

Description Charts, drawings and x-rays to illustrate the various diagnostic and therapeutic methods in this field

Dr John J Morton, University of Rochester, School of Medicine and Dentistry

THE PATHOLOGY OF BONE.

Description Radiographs of pathological lesions, outlines of clinical histories, and microphotographs of specimens will be shown

Drs George P. Berry and Jerome Syverton, University of Rochester, School of Medicine and Dentistry

FILTERABLE VIRUS TUMORS

Description The characteristics of certain animal tumors due to the activity of filterable viruses is illustrated by means of photographs, and of gross and microscopic preparations of pathological material. The transformation of the virus of Rabb-

Fibroma (Shope) into that of Infectious Myxomatosis (Sanarelli) is also illustrated

Drs Marian LeFevre, Richard Manly, William Beale, Harold Hodge, University of Rochester, School of Medicine and Dentistry

PHYSICAL AND CHEMICAL STUDIES OF TEETH

Description A Physical properties *Hardness*, photographs of tooth surfaces showing method of hardness measurement, graphs *X-ray Absorption*, chart of method, x-rays of slabs showing changes in dentistry following caries and attrition *Density*, apparatus for measuring density of powdered enamel, dentine, cementum and for separating tissues by flotation, graphs *Index of Refraction*, microscopic determination demonstrated, graphs *Optical properties in polarized light*, demonstration of prismatic colors in normal teeth and caries

B Chemical properties *Analytical*, differences between certain teeth and from side to side of jaws *Molecular constitution*, x-ray diffraction patterns, charts of molecular arrangements of atoms in tooth and bone substance.

Drs Charles D Kochakian and John R. Murlin, University of Rochester, School of Medicine and Dentistry

THE MALE SEX HORMONES

Description Photographs, graphs, charts, specimens Preparations of extracts, syntheses and various physiological effects

Dr Robert G Sinclair, University of Rochester, School of Medicine and Dentistry

GROWTH EFFECTS ON SUGAR AND VARIOUS FATTY ACIDS IN DIET

Description Charts illustrating the facts that there is deficient growth on diets lacking in highly unsaturated fats, that growth is restored when highly unsaturated fats are supplied, that there is very poor growth on diets rich in fats lacking in highly unsaturated fatty acids, and that considerable though subnormal growth is obtained when such facts are replaced by cane sugar Inference is that there is synthesis of es-

sential fatty acids from sugar but amount is inadequate for normal growth.

Dr Basil G Bibby, University of Rochester, School of Medicine and Dentistry

BACTERIOLOGY AND TOOTH SURFACES

Description The bacterial formations or plaques which form on tooth surfaces are illustrated by photographs These films were sectioned after removal from teeth by acid decalcification The characteristics of filamentous bacteria isolated from tooth surfaces are also shown

Dr Frederick W Williams, New York

CLASSIFICATION OF THE SURGICAL LESIONS OF THE LOWER EXTREMITY IN DIABETICS

Description Photographs and legends showing the lesions in their proper classification and the results of treatment both conservative and operative

Dr Cornelius F McCarthy, Auburn.

MEDICAL, HISTORICAL EXHIBIT

Description An exhibit of old books, pictures and records There is a complete series of minute books of the Cayuga County Medical Society from 1806 to 1936. Also old surgical instruments, etc.

Dr John R Williams, Rochester

THE MECHANISM OF INSULIN ACTION

Description Charts and graphs demonstrating the action of insulin in the human body

Dr Terry M Townsend and Associates, Urological Service, Morrisania City Hospital, New York

KIDNEY PATHOLOGY

Description Museum specimens and wax models illustrating various types of kidney lesions and conditions A demonstration in connection with motion picture theatre exhibit comprising films in color with sound, and in color only entitled "Pyelotomy for Stone" "Perineal Prostatectomy," "Suprapubic Cystotomy"

MOTION PICTURE THEATRE

A Division of the Scientific Exhibit, Rochester Chamber of Commerce

Series of Medical Motion Pictures, continuous 9 00 A M to 10 00 P M, Monday, Tuesday and Wednesday, May

24th, 25th and 26th The titles and time schedule will appear in the final official program

PROGRAM OF THE WOMAN'S AUXILIARY

Mrs JOHN L. BAUER, *President*

Mrs CARLTON F POTTER, *Convention Chairman*

Convention Headquarters, Hotel Seneca, Rochester, N Y

All Doctors' wives will please register at Registration Desk on Mezzanine floor, Hotel Seneca

All Doctors' wives, whether members of a Woman's Auxiliary to a County Medical Society or not, are cordially invited to participate in all parts of the program

Monday, May 24

9 00 A M REGISTRATION OF DELEGATES, Mezzanine floor

Mrs Irving J Sands, *Chairman*

Mrs Charles H Hitchcock, *Vice-Chairman*

GENERAL REGISTRATION OF ALL DOCTORS' WIVES, 9 00 A M to 5 00 P M throughout the Convention, Mezzanine floor

Mrs Milton Bergmann, *Chairman*

Mrs Horace W Whiteley, *Vice-Chairman*

10 00 A M EXECUTIVE BOARD MEETING, Blue Parlor, Mezzanine floor

11 00 A M HOUSE OF DELEGATES MEETING, Blue Parlor, Mezzanine floor

Mrs Irving J Sands, *Chairman*

2 00 P M HOBBY SHOW (to 10 00 P M), Yellow Parlor, Mezzanine floor

Mrs Edwin A Griffin, *Chairman*

Mrs Thomas B Wood, *Vice-Chairman*

2 30 P M CONTINUATION OF HOUSE OF DELEGATES MEETING, Blue Parlor

7 00 P M DINNER for Auxiliary Members and all Doctors' wives, Palm Lounge, Hotel Seneca

Tickets must be secured before 3 00 P M

Monday, Registration Desk, Mezzanine floor

Mrs Winthrop Pennock, *Chairman*

Mrs James R. Wilson, *Vice-Chairman*

Tuesday, May 25

10 00 A M HOBBY SHOW (to 10 00 P M)

1 00 P M LUNCHEON—Oak Hill Country Club All visiting Doctors' wives will be guests For luncheon and transportation, please register Monday at Registration Desk, Mezzanine floor

Mrs Nathan D McDowell, *Chairman*

2 30 P M DRIVE (following luncheon) will include residential section, lilacs and parks, the University of Rochester, Medical School, Hospitals, etc

Mrs W J Merle Scott, *Chairman*

7 00 P M NEW YORK STATE MEDICAL SOCIETY BANQUET at the Chamber of Commerce

Wednesday, May 26

9 30 A M HOBBY SHOW (closes 2 00 P M) (Please call for all exhibits Wednesday, May 26, between 2 00 and 5 00 P M)

9 30 A M POST CONVENTION EXECUTIVE BOARD MEETING, Blue Parlor

10 00 A M SIGHT-SEEING TRIP THROUGH EASTMAN KODAK COMPANY Please register at Registration Desk, Mezzanine floor, before 5 00 P M Tuesday

Mrs Charles C Thomas, *Chairman*

4 30 P M FASHION SHOW—Hotel Seneca

Convention Committees

Honorary Chairmen

Mrs Floyd S Winslow

Mrs Charles H Goodrich

Mrs Leo F Simpson

General Chairman

Mrs Carlton F Potter

ENTERTAINMENT Mrs J Craig Potter, *Chairman* and Mrs Charles B F Gibbs, *Vice-Chairman*

DINNER Mrs Winthrop Pennock, *Chairman* and Mrs James R Wilson, *Vice-Chairman*

FLOWER Mrs David B Jewett, *Chairman*

HEADQUARTERS Mrs Carl E Muench, *Chairman*, Mrs George B Andrews, Mrs Harry S Bull, Mrs Herman W Galster, Mrs Norman J Pfaff, Mrs Samuel Stewart.

HOBBY SHOW Mrs Edwin A Griffin, *Chairman* and Mrs Thomas B Wood, *Vice-Chairman*

HOUSE OF DELEGATES Mrs Irving J Sands, *Chairman*

INFORMATION Mrs Harry I Norton, *Chairman*

PUBLICITY Mrs Milton Bergmann and Mrs George H Gage

REGISTRATION DELEGATES—Mrs Irving J Sands, *Chairman*, Mrs Charles H Hitchcock, *Vice-Chairman* GENERAL—Mrs Milton Bergmann, *Chairman*, Mrs Horace W Whiteley, *Vice-Chairman*

RESOLUTIONS Mrs Edgar M Neptune, *Chairman* and Mrs Charles D Post, *Vice-Chairman*

Technical Exhibits

The largest exhibition of any up-state meeting, features the 131st Annual meeting

Taking the capacity for space at the Rochester Chamber of Commerce Building, seventy-five exhibitors are preparing to display products that are essentially a part of every physician's daily requirements. In addition to their number, few, if any, technical exhibits have attracted such an inclusive array of outstanding medical products and services

ducts and services

No attending member or guest of the Medical Society of the State of New York, should fail to visit every booth and to find the time to check personally on the merits of every product presented entirely for inspection by physicians

The Technical Exhibit, primarily and exclusively a private showing for the medical profession, include the following

- American Agency of French Vichy, Inc, Brooklyn
 American Cystoscope Makers, Inc, New York
 American Hospital Supply Corporation, Chicago, Ill
 American Safety Razor Corporation, Brooklyn
 The Arlington Chemical Company Yonkers
 Bard-Parker Company, Inc Danbury, Conn
 Barr Laboratories, Inc New York
 Bausch & Lomb Optical Co Rochester
 Bilhuber-Knoll Corporation, Jersey City, N J
 Burroughs Wellcome & Co (USA) Inc, New York
 Cambridge Instrument Co, Inc, New York
 Cameron Heartometer Company, Chicago, Ill
 Cameron Surgical Specialty Company, Chicago, Ill
 Harold H Clapp, Inc Rochester
 Crookes Laboratories, Inc New York
 R B Davis Sales Company Hoboken, N J
 The De Vilbiss Company Toledo
 Dictograph Products Company, Inc, New York
 is .
 supply laboratories, Inc Long Island City
 on diets Kodak Co Rochester
 saturated Vinegan (Keleket-Burdick), Rochester
 able though
 when such fact
 Inference is that Company Chicago, Ill
 Inc Lynchburg, Va
 New York
 New York
 h. rp Rochester
 A Division of the Sciencemont, Mich
 New York
 Series of Medical Motapopolis, Minn
 continuous 9 00 A M to Pittsburgh, Pa
 Monday, Tuesday and Wnc New York
- Hynson, Westcott & Dunning, Inc, Baltimore, Md.
 Kalak Water Company of New York Inc, New York
 Kellogg Company Battle Creek, Mich.
 Lea & Febiger Philadelphia, Pa.
 Lederle Laboratories, Inc New York
 Libby, McNeill & Libby Chicago, Ill
 The Liebel-Flarsheim Company, Cincinnati, O
 Mallinckrodt Chemical Works New York
 M-D Products Company Elizabeth, N J
 The Mennen Company Newark, N J
 Middlewest Instrument Company, Chicago, Ill
 The C V Mosby Company. St Louis, Mo
 Mutual Pharmacal Co, Inc., Syracuse
 New York Medical Exchange New York
 Nichols Nasal Syphon, Inc New York
 The Paine Drug Company Rochester
 Pediforme Shoe Company New York
 Petrolagar Laboratories Chicago, Ill.
 Philip Morris & Co Ltd, Inc New York
 J K. Post Drug Co Rochester
 The Radium Emanation Corporation, New York
 William S Rice, Inc Adams
 Sanborn Company Cambridge, Mass
 Sandoz Chemical Works, Inc New York
 Smith, Kline & French Laboratories, Philadelphia, Pa.
 C M Sorensen Co, Inc Long Island City
 E R. Squibb & Sons New York
 R J Strassenburgh Company Rochester
 Taylor Instrument Companies Rochester
 Wallace & Tiernan Products, Inc, Belleville, N J
 Wegner Canning Corp Sodus, N Y
 Westinghouse X-Ray Corporation, Long Island City
 Wilmot Castle Company Rochester
 Winthrop Chemical Company, Inc., New York
 Worcester Salt Company New York

Annual Meeting

Entertainment at Rochester Meeting

Heretofore at the annual meeting of the State Society, in the endeavor to make the occasion as pleasurable as possible, entertainment features of various kinds have been arranged for various hours during the session. Under such a plan the visitor frequently has been confronted with the alternative of foregoing a scientific program in which he might have keen interest for some appealing entertainment feature, or to sacrifice the latter completely if he were serious minded about the program.

The Rochester Committee has wisely provided against this difficulty. Entertainment, for the most part, will be centered on the final day, Thursday, May 27, and will be so arranged that one can satisfy many tastes. For those who are interested in things purely scientific and clinical, the privilege of visiting the Strong Memorial Hospital and University Medical School will be afforded. To the lover of Nature, a visit to Highland Park is recommended. This splendid arboretum, one of the finest in the world, will be at its best in May. It will be the season of the lilacs and the rhododendron. These remarkable collections attract world-wide attention because of their beauty and completeness.

The great scientific industries, the Bausch and Lomb Optical Company and the Eastman Kodak Company, will permit inspection

tours on this day. This is an unusual privilege, filled with thrills and fascination.

The great event of the day will be the golf tournament at the Oak Hill Country Club, with its two championship courses. Although there will be but eighteen holes of play, it will be possible for each golfer to enter several contests. Most of the events are handicap affairs, so that lack of skill need not deter one from playing. The Lilly Trophy Competition, which is played annually by the Academies of Medicine of New York State and Ontario, will be the main feature. Inter-city team matches between various cities of the State and Canada are another feature. There will be a contest for left-handed physicians and another for the doctors of the old school, who no longer wear whiskers but who will admit advancing years.

For these contests prizes of considerable value are offered. In addition to merchandise consisting of scientific instruments and supplies donated by leading manufacturers, there are six sterling silver cups and bowls for championship prizes, the value of which is several hundred dollars.

It is expected that there will be at least three hundred participants in the golf tournament, which will conclude with a banquet in the beautiful ballroom of the club.

Rochester's Medical Sit-Down Strike

Rochester's medical sit-down strike is scheduled for May 24 to 26. Differing from other such periods of gluteal repose, we are giving long advance notice, that on these dates the convincingly ill and the exotically neurotic may resort to medication in vain while the wiser physicians hereabouts park their fundaments in the sessions of the annual meeting of the Medical Society of the State of New York. Through most courteous co-operation on the part of the local Chamber of Commerce and most able efforts on the part of the committee of arrangements, we are in a position to promise the finest physical set-up that the state meeting has ever experienced in any

city west of Montauk Point. The state society's remarkably high standard of scientific programs and commercial exhibits will be augmented by special entertainment efforts of local industries, by unusually enjoyable arrangements for that distaff element and by a golf day that will restore pristine elasticity to the coronaries. The doctor's usual forty(?) hour week may have to be extended a little but local physicians will be pleased much by a long stay and an active participation on the part of those who are so unfortunate as to live elsewhere.

—Editorial *Monroe County Bulletin*, April 1937

Teacher "Now, can any boy give me a sentence using the word 'diadem'?"

Pupil "People who drive carelessly

across railroad tracks diadem sight quicker than those who stop, look and listen."

—*Nebr State Med Jour*

COMMITTEE ON LEGISLATION

Bulletin No 9

March 18, 1937

Since the issuance of our last bulletin the following bills have been introduced

Senate Int. 1368—Esquirol, adds new section to the Labor Law, prohibiting the employment of any person as a domestic servant, suffering from contagious or communicable disease, and requiring all such servants to furnish health certificate of a physician, including Wassermann test Referred to the Labor Committee.

Senate Int 1369—Feld, osteopathy bill Same as Assembly Int 1605—Milmoe Referred to the Education Committee

Senate Int 1444—Howard, amends the Labor Law generally and section 2 of the Workmen's Compensation Law, defining powers and duties of the Industrial Board, providing for Workmen's Compensation Board of five members to be appointed by the Governor, to perform duties detailed to it by the Industrial Commissioner and to hear and determine compensation claims, and appropriating \$65,000 Referred to the Labor Committee

Assembly Int. 1901—Hillig, amends the Public Health Law by striking out the provision that child or person not vaccinated shall not be admitted to school in city of 50,000 or more and requiring certificate from physician during smallpox epidemic only in school district or an adjoining district instead of any city school Referred to the Health Committee

Comment We have not had an antivaccination bill for several years In writing to your Assemblymen, call attention to the fact that the smallpox epidemic of last summer in the western part of the State would never have gotten a start had the law required vaccination of all school children

Assembly Int. 1904—Sullivan, adds new Art 59 to the Education Law, providing for regulation of practice of dispensing optician Referred to the Education Committee

Assembly Int 1907—Maisel, requires the State Health Commissioner, with approval of Governor, to select suitable sites for three state cancer hospitals, one to be in New York City for which \$500,000 is appropriated, and two outside of New York City for which \$100,000 is appropriated, a new Art 18-a is added to the Public Health Law for establishing such hospitals and providing for superintendents and admission of patients Referred to the Ways and Means Committee

Comment Similar to the Mahoney-Gugino bill except that it provides for the

erection of a hospital in New York City instead of Buffalo

Assembly Int 1995—Stephens, amends the Public Health Law by providing that where inmate of state tuberculosis hospital is unable to pay for care, he shall be maintained by the state, and appropriating \$150,000 Referred to the Ways and Means Committee.

Comment This is the fifth bill of this type to be introduced at this session

Action on Bills

S Int 615—Schwartzwald—Health Law, viruses, cultivate, restrict—3rd reading

S Int. 618—Schwartzwald—Health Law, sale of narcotics—3rd rdg

S Int. 614—Schwartzwald—Health Law, births, register—reported

* * *

Our Lien Bill is under heavy fire in the Assembly Judiciary Committee. IT IS EXCEEDINGLY IMPORTANT THAT YOU TALK WITH YOUR SENATORS AND ASSEMBLYMEN OVER THIS WEEK-END ABOUT THIS BILL The New York City Bar Association has violently attacked the bill There is enclosed a copy of the brief they submitted to the legislators *Other Bar Associations which have disapproved the bill are* Brooklyn Bar Association, Brooklyn Women's Bar Association, Onondaga County Bar Association, Rochester Bar Association, Chemung County Bar Association, and the Livingston County Bar Association The Genesee County Bar Association alone has approved the bill

HOMER L. NELMS
JAMES L. GALLAGHER
B WALLACE HAMILTON
JOHN J. MASTERSON
LEO F. SIMPSON

NEW YORK CITY BAR ASSOCIATION communicated to each Senator and Assemblyman the following opposition to our Lien Bill

The bill would create a new lien in favor of physicians and nurses Claims on account of personal injuries resulting from negligence of another would be charged with the lien "for the amount of the reasonable charges of such physician or nurse" for treatment, care and services.

The injury must occur within one week prior to the treatment. The physician or nurse must first file in the office of the county clerk in the county where the services are rendered, and send by registered mail to the party alleged to be liable for the injuries, a statement containing such information as the name and address

of the claimant and the name and address of any third parties alleged to be liable. A similar statement must be mailed to any insurance carrier which has insured the party alleged to be liable. Payments to the injured person prior to the filing of such notice are not affected by the notice. Within five days after concluding the treatment, the physician or nurse must file in the office of the county clerk a verified statement of the amount of the lien.

The bill is modeled after the lien granted to charitable hospitals pursuant to L 1936, Ch 534, which was disapproved by this Committee in 1936, No 73. The lien is subordinate to the lien of an attorney upon a cause of action arising out of the injury treated.

The verified statement to be filed need only show "the total amount of the charges claimed." No description of the services rendered is required and no safeguards are provided to limit the amount of the claim, such as the agreed price or reasonable value of the services, similar, for example to that required under Section 9 of the Lien Law relating to the notice of a

mechanic's lien. No notice of the claim of lien is required to be given to the injured person. The bill makes it mandatory for physician or nurse to mail notice to any insurance carrier, a duty which either may be unable to discharge for lack of knowledge. No provision is made for the cancellation of the record of the lien. There are no specific provisions for permitting the injured party to test the validity or the amount of the lien, the only limitation on enforcement relates to the party who is liable to the one injured. The bill provides that such party shall remain liable to the lienor for a period of one year from the date of payment to the one injured.

In addition to these objections, Subdivision 2 of the bill grants the lien to any "specialist" or "consultant" called in the case by the physician, without limitation as to time and without first affording the injured party or his representatives an opportunity to be heard. This provision places the expenses of treatment beyond the control of the injured party or his representatives.

THE LITTLE BOY--THAT'S ME

An intriguing anecdote has been discovered by a Massachusetts physician, Dr William Pearce Cowes, in Sacha Guitry's "If Memory Serves," and is reprinted in the *New England Journal of Medicine*.

Guitry had informed Vallery-Radot, Pasteur's son-in-law, that he wished to read the play to him and Madame Vallery-Radot. The request was granted, but Guitry was received with much coolness, and it at once became clear to him that the Vallery-Radots disapproved in advance of the idea. "Sir," said Vallery-Radot, "I should like you to know that my wife and I will do everything in our power to prevent the performance of your play. It is a matter of principle with us and we think it only fair that you know this before you read us your play."

After the reading, the Vallery-Radots completely changed their minds. In the play Guitry's father, Lucien Guitry, took the part of Pasteur.

Sacha Guitry says that, "On the opening night I observed a modestly dressed man of pleasant appearance standing in the shadow of the wings. As each act began he would go closer to the set, listen eagerly, and peer between the walls of the scenery with such interest that I quite forgot to remind him that 'only members of the cast are allowed backstage during the performance.' But during the third act, when for the first time Pasteur is about to inoculate a small boy against the rabies, I saw my man open a door in the set part way in order the better to see what was going on. I asked him not to do that. He said, 'Excuse me, sir. I am the concierge at the Pasteur Institute, and I particularly want to see this scene.' I asked why. 'Because that's me.'"

"You? Which one?" "The little boy. That's me. I was the first one whose life was saved by Monsieur Pasteur!"

HE HAS HIS TOES WELL IN HAND

A special cable to the *New York Times* from Moscow says that making fingers out of toes was successfully accomplished for a young worker named Baskoff by Professor M I Kushik of the Central Traumatological Institute in Leningrad.

Baskoff, who works in a lumber factory, lost two fingers in a saw. Professor Kushik attached the stumps to the man's toes. After three weeks in an uncomfortable position it was found the toes united with the

fingers. Whereupon Professor Kushik amputated the toes and, after some reshaping of them, Baskoff four weeks later had new and serviceable fingers.

This rare operation is said to have been first attempted unsuccessfully toward the end of the last century by an Italian surgeon, Professor Nikoladoni. Professor Vradel of Leningrad had succeeded in such an operation on lower animals.

COMMITTEE ON WORKMEN'S COMPENSATION

It has come to the attention of this Committee that certain employers have attempted to enter into agreements with certain physicians to treat injured workmen without complying with the full requirements of the law in regard to reporting

In some instances such physicians have been offered medical work in volume but at a rate not in accordance with the fee schedule. Of course this practice is a violation of the amended Workmen's Compensation Law and physicians are advised of this fact

The following communication has been received from the Industrial Commissioner and is self-explanatory

DAVID J. KALISKI, M.D., *Chairman*

STATE OF NEW YORK
DEPARTMENT OF LABOR
ALBANY

April 5, 1937

Dr. David J. Kaliski, Chairman
Workmen's Compensation Board
New York County Medical Society
2 East 103rd Street
New York City

Dear Doctor Kaliski:

I have your communication of April 1, 1937 advising that you have received numerous inquiries during the past few months, concerning the practice of certain employers entering into agreements with physicians not to report minor injuries and to accept fees directly from these employers rather than from their insurance carriers, and requesting a statement from me supporting your contention that all cases must be reported by both the physician and the employer

In answer may I say that it is mandatory that all authorized physicians submit proper medical reports on all compensation cases under penalty of being removed from the panel for such failure as provided in Section 13-D-2 (c) which I quote as follows

The Commissioner shall remove from the

list of authorized physicians any physician who has failed to submit full and truthful medical reports required to be made by him to the Commissioner or the Industrial Board.

With reference to employers reporting accidents, will advise that the law requires that all accidents resulting in disability beyond the day of the accident must be reported by the employer as provided in Section 110 quoted as follows

Record and report of injuries by employers. Every employer shall keep a record of all injuries, fatal or otherwise, received by his employees in the course of their employment. Within ten days after the occurrence of an accident resulting in personal injury which shall cause a loss of time beyond the day or working shift on which the accident occurred, or which shall require medical treatment beyond ordinary first aid, a report thereof shall be made in writing by the employer to the Commissioner upon blanks to be procured from the Commissioner for that purpose. Such report shall state the name and nature of the business of the employer, the location of his establishment or place of work, the name, address and occupation of the injured employee, the time, nature and cause of the injury and such other information as may be required by the Commissioner. An employer shall furnish a report of any other accident resulting in injury received by an employee in the course of his employment or an occupational disease incurred by an employee in the course of his employment whenever directed by the commissioner. An employer who refuses or neglects to make a report as required by this section shall be guilty of a misdemeanor punishable by a fine of not more than five hundred dollars

It seems to me that according to the provisions of Section 13-D-2 (c) instruction may be issued to the Medical profession directing that proper medical reports be completed and filed on all compensation cases without exception

Very truly yours,
(signed)—ELMER F. ANDREWS
Industrial Commissioner

A NEW DEFINITION

"Tell me, papa," asked Johnnie, "what last to share the blame"
is a consulting physician?"
"He is a doctor who is called in at the

—Bulletin
Medical Society County of Monroe

Public Health News

The Significance of a Positive Tuberculin Reaction

More than a million school children were tested with tuberculin last year. Most of the positive reactors were urged to consult their family physician for an interpretation of the test. What is the significance of a positive tuberculin reaction and what shall the doctor do about it? Lewis J. Moorman gives a specific and balanced answer in an article entitled "The Duty of the Family Physician in the Presence of a Positive Tuberculin Test"

A positive tuberculin test, particularly in the period of childhood or adolescence, places before the family physician the difficult task of carefully following a few of the knotty threads which help to make up the complicated fabric of human life.

He must realize that a positive reaction means that the tubercle bacillus has entered the human organism and has produced a pathological condition known as tubercle. In reality, a positive test warrants a diagnosis of tuberculosis. It is doubtful if we are justified in continuing to teach that there is a difference between disease which does not produce obvious symptoms and which never manifest demonstrable pathological changes during life, and the same disease which gives rise to the symptoms of toxemia with the demonstrable signs of gross pathology.

Possibilities Following Infection

Infection with the tubercle bacillus carries a wide range of possibilities. The disease may never cause obvious symptoms or demonstrable pathology. It may, particularly in infancy, lead to the development of one of the acute forms of tuberculosis which usually, in a relatively short time, prove fatal. Generalized miliary tuberculosis, tuberculous meningitis and the acute pneumonic types of pulmonary tuberculosis are among the common forms. If the child with a positive tuberculin test lives to be three or four years of age without developing manifest progressive disease, even though the x-ray may show what we call the primary complex (a calcified or Ghon tubercle in the parenchyma of the lung with secondary involvement of tracheobronchial lymph nodes), we may reasonably anticipate that he will carry on through childhood without clinical manifestations of disease.

When he arrives at the age of puberty there seems to be an inexplicable susceptibility to active progressive disease either through endogenous or exogenous reinfection. Then follows the train of variable

possibilities always accompanying manifest tuberculosis.

Time will not permit a detailed discussion of these possibilities. Suffice it to say that the individual with a positive tuberculin test faces all the possibilities inherent in the wide range of hematogenous clinicopathological manifestations from the relatively inert primary complex through mild, moderately severe, to overwhelming generalized tuberculosis, and from low-grade fibrotic bronchogenic lung lesions through progressive stages of caseo-ulcerative forms, to widespread bilateral multilobar involvement which so often precedes death.

Physician's Responsibility

What has been said emphasizes the grave responsibilities resting upon the family physician when he stands in the presence of a child exhibiting a positive tuberculin test. Obviously he must throw about such an individual every available safeguard.

A positive tuberculin test has other implications and places upon the family physician other obligations. Having discharged his duty with reference to the individual manifesting the evidence of infection, he must consider the probable source of infection. Infection with the tubercle bacillus means contact with the tubercle bacillus. This usually means intimate contact with some one who has open tuberculosis. Naturally some one in the home must be considered the most probable source of infection. A negative family history is of little importance. Each member of the family, including relatives, servants and others who may reside in the home, should have a tuberculin test, and every one exhibiting a positive test should have a thorough examination, including an acceptable x-ray of the chest. Any member of the household manifesting symptoms or signs of pulmonary disease should be examined even though the tuberculin test is negative. Repeated sputum examinations should be made in suspected cases where sputum is available. Accepting a single negative sputum examination as final often leads to disaster.

Reprinted by permission of *Tuberculosis Abstracts*, March 1937

Determine Source of Contact

If such a searching investigation fails to reveal the source of infection in the home, we must consider the possibility of contact with tuberculous teachers, neighbors, or visiting friends and relatives. Finally, hand to mouth infection must be considered. The baby on the floor, the child playing jacks or marbles on the street, may easily make contact with tubercle bacilli which have been deposited there by someone suffering from open tuberculosis. Occupants of the home may carry tubercle bacilli on their feet or they may be carried in by dogs and cats. Contaminated food may constitute another source of hand to mouth infection.

Thanks to those who have instituted the wise handling of dairy herds in this country, and the added precaution of pasteurization of milk before delivery, we see relatively little bovine tuberculosis in the United

States. However, we must not forget the possibility of infection from undiscovered tuberculous cows privately owned or in dairy herds.

We must admit that the execution of the proposed program is often difficult. Nevertheless, the obligation rests squarely upon the shoulders of the physician who discovers a positive tuberculin test. Fortunately for those physicians who may not be interested, or who may not desire to carry out such a program, the aid of specialists or voluntary and public health agencies in the field of tuberculosis may be secured. The same sources of service may be recommended to the physicians who are interested in executing the program but feel the need of help with certain phases of the examination.

Reference

Moorman, Lewis J. *Jour. Okla. State Medical Society*, January, 1937.

The Early Diagnosis Campaign

Osler's Principles and Practice of Medicine. "A last word on the subject of tuberculosis to the general practitioner. The leadership of the battle against this scourge is in your hands. Much has been done, much remains to do. By early diagnosis and prompt, systematic treatment of individual cases, by the prompt recognition of contact cases, by striving in every possible way to improve the social condition of the poor, by joining actively in the work of the local and national anti-tuberculosis societies you can help in the most important and the most hopeful campaign ever undertaken by the profession."

For ten consecutive years the tuberculosis associations of the United States have been conducting in the month of April an annual publicity campaign for the early diagnosis of tuberculosis. Dr. Edward L. Trudeau, the pioneer of the fight against tuberculosis in the United States, went on record at the first meeting of the National Tuberculosis Association on May 18, 1905, as follows:

"The first and greatest need in the prevention of tuberculosis is education, education of the people, and through them education of the state. It is evident that if every man and woman in the United States were familiar with the main facts relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection, not only might we reasonably expect as a direct result of this knowledge a great diminution in the death rate of the disease, but the people would soon demand and easily obtain effective legislation for its prevention and control."

"When a state has once become well educated, and not before, will the other

requisites necessary to the control of the disease be forthcoming?"

This fundamental principle is as valid today as it was 32 years ago. The tuberculosis associations of the country appreciate the cooperation and leadership which the medical profession has always offered. Again the farsighted physician is urged to lend his help to this year's campaign.

The theme of the 1937 E. D. C. (Early Diagnosis Campaign) is "Uncover Tuberculosis with Modern Methods." For the campaign three leaflets have been produced.

The first leaflet called "Signals" deals with early symptoms of tuberculosis and the importance of consulting the doctor on their first appearance. It is a discouraging fact that in the last ten years no appreciable increase has occurred in the proportion of "early cases" admitted to sanatoria. This is in spite of years of earnest educational efforts urging people to obtain medical advice on the appearance of the earliest symptoms which are enumerated in the pamphlet. One of the explanations offered is that some of the early symptoms are not sufficiently severe to prompt people to action. In fact they are often so subtle as to be overlooked even by the doctor.

surveys of large numbers of sanatorium patients have shown that fatigue is often the first and only warning signal. Another danger sign which is just as often overlooked or disregarded by the patient is a group of symptoms which we commonly call indigestion. A cough that hangs on, loss of weight, blood spitting, pleuritic pain, are more likely to cause a man or woman to visit the family doctor. The physician's greatest part in the fight against tuberculosis is his willingness to investigate these danger signs at once, bearing in mind that often it is impossible to exclude tuberculosis without an x-ray of the chest. The files of tuberculosis sanatoria are filled with case histories showing that cases were diagnosed far too late. Not only is syphilis, as Osler says, a great imitator but tuberculosis also imitates the symptoms of many other diseases.

The somewhat out-dated survey by Dr Linsly Williams and Miss Alice Hill has furnished data relating to the fate of about 1,500 tuberculosis sanatorium patients. A regrettable large number of these cases were first diagnosed as bronchitis, pleurisy, colds, "congestion" of the lung and a great variety of other diseases including malaria, cancer,

anemia, pathological conditions of the liver, kidney, bladder and even rheumatism.

Only the four classic symptoms of early tuberculosis—fatigue, loss of weight, cough and indigestion, are mentioned in the pamphlet. Care is taken to make clear that none of these symptoms is pathognomonic but that any of them should be considered as a danger signal to be investigated by the physician, emphasizing the advice that he be consulted *early*.

The second booklet "It Can Happen" deals with the tuberculin test and is addressed to high school groups.

The third booklet "In Every Home" deals with the age-old story of contacts.

It is abundantly recognized that the reason for failure to find early cases cannot result entirely from the apathy of patients nor from lack of vigilance on the part of the doctor. Sanatorium men recognize the fact that more and more cases appear where the transition from the "early" or "silent" stage of tuberculosis to the moderately advanced or far advanced is relatively swift and only by the barest chance is the minimal case detected if the fluoroscope or the x-ray is not used as a standard aid in diagnostic practice.

MAKE RESERVATIONS NOW FOR ANNUAL BANQUET

The Annual Banquet of the Medical Society of the State of New York will be held on Tuesday evening May 25 at seven P.M. in the large Assembly or Dining Hall of the Chamber of Commerce, in Rochester.

Aside from the Speakers' table, which will have twenty-five of the outstanding men in the American Medical Profession, eight hundred other seats will be available.

The guest Speakers of the evening will be Dr Gordon Lang of the University of Chicago whose topic will be, "Is the Doctor Human?," Doctor Wingate Todd of Western Reserve University whose topic will be, "Shadows in the Mirror of Health," and

Mr Carl Ackerman, Dean of the School of Journalism, Columbia University, whose talk will be "The Doctor and Public Opinion."

There will be music during the entire dinner which will be the best ever, and dancing will follow the speaking.

In order to assure yourself and your wife of ideal table reservations, it would be wise to contact Dr E. T. Wentworth or Dr B. J. Duffy, addressing your letters to 13 Prince Street, Rochester, N. Y.

The price of the dinner tickets is five dollars.

FOR FITTER FIREMEN

The New York City Fire Department has determined that it is necessary for those on the eligible list for appointment in its department be given x-ray and Wasserman tests by the Department of Health before being certified for appointment by the Civil Service Commission, in order to determine whether or not in these respects they are physically fit. This new precaution will

protect the public both against undiscovered and usually curable sources of infection and also against latent but possibly serious and costly physical disability in its fire force. It will also be added protection to the men found free from these diseases. Finally it will prove a blessing to men who are found in need of medical treatment.

PRIZE FOR REPORT ON CASES OF PNEUMONIA

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter.

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the *NEW YORK STATE JOURNAL OF MEDICINE*.

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1.

Address further inquiry to

Dr. Edward S. Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N. Y.

Medical News

Albany County

THE DEDICATION OF THE Theobald Smith Memorial Laboratory of Albany Medical College, Union University, took place on March 19. In the afternoon Dean Thomas Ordway made an address at the unveiling of a plaque of Theobald Smith. At the evening exercises Doctor Charles R. Stockard of Cornell University Medical School delivered an address on "The Spirit of the Laboratory." The Theobald Smith Memorial Laboratory houses the Departments of Physiology and Pharmacology and of Experimental Surgery.

Broome County

THE MEETING OF THE Broome County Medical Society at the Monday Afternoon Club House, Binghamton, on March 9, was largely devoted to the consideration of impending State Legislation which directly or indirectly, sometimes vitally, affects the practice of medicine and public health.

The Society was invited by the Endicott-Johnson Medical Department to dinner at the Nurse's Home, Wilson Memorial Hospital, Johnson City, March 23. The speaker was Dr. Hugh Cabot, Chief of the Urological Service, Mayo Clinic, Rochester, Minn. Subject—"Methods of Diverting the Urine above the level of the Bladder and Destructive Lesions of that Organ."

Cortland County

THE CORTLAND COUNTY Medical Society met in the Cortland Free Library, March 19. Drs. Samuel H. Munford, internist, and Walter S. Thomas, pathologist, spoke on "A Clinico-Pathological Conference with Case Reports of Extreme Interest, Yet of Very Practical Application to Every-Day Practice." The discussion was opened by Drs. Walsh and C. D. Ver Nooy. Reported by O. E. White, M.D., Secretary.

Dutchess County

A REGULAR MEETING OF THE Dutchess County Medical Society was held March 10 at Hudson River State Hospital. The meeting was featured by a paper on "Syphilis—Public Health Aspects, Diagnosis and Treatment," by Dr. W. A. Brumfield, Jr., director of the division of social hygiene,

State Department of Health. The society will tender a complimentary dinner to Drs. James E. Sadlier and John S. Wilson, commemorating their fifty years in the practice of medicine.

Erie County

THE MARCH MEETING of the Medical Society of the County of Erie was held the 15th, and had as guest speaker Dr. David J. Kaliski, chairman of the Committee on Workmen's Compensation of the Medical Society of the State of New York. His address on the Principles of the Workmen's Compensation Law was informative and served to allay some objections to the law which had arisen through a misunderstanding of certain provisions and rulings by the Industrial Commissioner.

THE PROGRAM FOR THE stated meeting of the Medical Society of the County of Erie, held April 19, was devoted chiefly to the annual report of the Survey Committee on Maternal Mortality for Erie County. A report on the progress made during the past three months by the Hospital Service Corporation for Western New York was presented at the same meeting.

THE SOCIETY'S COMMITTEE on Public Health, pursuant to instructions, has arranged with the special Survey Committee of the Society to present to the Buffalo Board of Health for study a physicians' Participation Plan in preventive medicine to cooperate with the Buffalo Department of Health.

MEMBERS OF THE sub-committee of the Committee on Public Health and Education of the Medical Society of the State of New York were in session in Buffalo, March 23, to arrange tentative plans for Western New York in the preparation of next year's public health program which will be devoted to Child Hygiene. Present at the meeting were Drs. Thomas P. Farmer, Peter Irving, Edward J. Wynkoop, Chairman of the sub-committee on Child Hygiene, and Oliver W. H. Mitchell.

Jefferson County

THE FINAL LECTURE in a course on Obstetrics as arranged by the Committee on

Public Health and Medical Education of the State Society, for the Jefferson County Medical Society is scheduled for May 6, 6 30 P M at the Black River Valley Club, Watertown Dr Raymond J Pieri will speak on "Pre-Natal and Post-Natal Care"

Kings County

AT A LUNCHEON GIVEN BY Mrs Charles A Gordon at her home, plans were formulated for the Spring luncheon to be held at the Hotel Astor, Manhattan, on May 11 by the Woman's Auxiliary to the Medical Society of the County of Kings Mrs Gordon will be chairman of the luncheon, with Mrs Edwin A Griffin, president of the auxiliary, Mrs John L Bauer and Mrs Frank Jennings as her cochairmen

A MARKED INCREASE IN THE number of diphtheria cases has spurred the Kings County Medical Society to appeal to Brooklyn physicians for "more aggressive measures for the control of this disease which could be and should be eliminated from our city" In fact, the Medical Society addressed its members "There is no reason why diphtheria should not be as much a medical curiosity in New York City as smallpox is today"

BROOKLYN IS IN NO DANGER of becoming a happy hunting grounds for a bunch of "liars, cheats and loafers" bent on wangling free medical care from the city, says Health Commissioner Dr S S Goldwater Describing as exaggerated a denunciation of the "medical chiseler" made recently before the Kings County Medical Society, Commissioner Goldwater declared "No more than two per cent. of persons using free hospital dispensaries in the borough have been shown to have made false claims"

Monroe County

DR EDWARD S ROGERS, director of the division of pneumonia control of the state Department of Health, is quoted in the Rochester papers as saying that he found the Monroe County pneumonia campaign more progressive than that of any other county in the state

Montgomery County

THE MEDICAL SOCIETY OF the County of Montgomery was host in Amsterdam on March 18 at a dinner and card party, wives of a majority of the members being guests Dr A J Townley, president of the medical

society, appointed a committee of ladies to serve as a committee of the Ladies' Auxiliary

Nassau County

THE EXECUTIVE BOARD of the Women's Auxiliary to the Medical Society of Nassau, on March 16 gave a dinner at the Bar Association building in Mineola for Dr Charles Gordon Heyd, president of the American Medical Association After the dinner Dr Heyd addressed a joint meeting of the Auxiliary and the Society on "The Survival of Medicine as a Profession."

New York County

A CAREFUL INVESTIGATION has been made, by the Committee on Civic Policy, into the possibility of obtaining a pension plan for members of the County Medical Society A number of insurance companies cooperated with the Committee in this investigation. However, a pension plan suitable to the needs of the County Medical Society could not be obtained at reduced premiums without too great an initial financial outlay by the Society

A PLAN entitled "Partial Adjusted Health Insurance," presented by Dr Arthur Coca, is now under investigation by the Committee on Economics This provides that approximately two-thirds of each medical bill be paid for by a state health insurance, and the remainder by the patient himself Such a plan would obviate any malingering on the part of certain patients, would be operated by the profession, and would amount essentially to a socialization of the means of collection, with a retention of the individual practice of medicine. The plan in detail is now under consideration by the Committee

A SURVEY IS BEING MADE by the Committee on Economics of "the frequency with which medical services are sold by hospitals, and income, justly due the medical profession itself, deviated to administrative expenses"

A PLAN HAS BEEN worked out by the Special Committee on Hospitals and Dispensaries, in connection with the Associated Hospital Service, whereby doctors and their dependents join this plan as any other group and for the same insurance fee, but that as an additional concession, hospitals concede, private room accommodations instead of semi-private The proposal was submitted to the Associated Hospital Service and

the Hospital Conference which recommended it for adoption by its various members. To date no less than eighty-seven hospitals have adopted the plan. The committee recommends wide publicity and the organization of a County Medical Society. Physicians membership group in the Associated Hospital Service.

THE 44TH REGULAR MEETING of the Society of Medical Jurisprudence was held at the New York Academy of Medicine on March 8. A paper on "Medico-legal Aspects of the X-ray" was given by Louis J. Gelber, M.D., LL.B. A meeting is scheduled for May 10, "The Value of Non-Partum Expert Testimony," by Ramsey Spillman, M.D.

A CLINICAL SESSION on chronic pulmonary diseases, sponsored by the Tuberculosis Sanatorium Conference of Metropolitan New York, was held on April 7 at the Cornell University Medical College. "Primary Neoplasms of the Lung" (Pulmonary cancers) was discussed by Dr. Wolfgang Grethmann, Pathologist, Tuberculosis Service, Bellevue Hospital, Dr. Coleman B. Rubin, Associate in Medicine at Mt. Sinai Hospital, and Dr. William Francis Reinhoff, Jr., Associate Professor of Surgery at Johns Hopkins University and Medical School. Following this, general discussion was opened by Dr. Milton Sills Lloyd, Bronchoscopist, Flower-Fifth Avenue Hospital. Announcement is made by the Tuberculosis Sanatorium Conference of Metropolitan New York of the appointment of Dr. Edgar Mayer, Assistant Professor of Clinical Medicine of Cornell University Medical College, succeeding Dr. Foster Murray recently elected President of the Conference. Dr. William J. Ryan, Medical Director of the Summit Park Sanatorium, Pomona, New York, has been elected Vice-President.

Niagara County

DR. IRVING W. POTTER, gynecologist addressed twenty-five members of the Niagara County Medical Society on Mar. 9 at Lockport on "Rupture of the uterus with a Report of Cases."

Oneida County

DR. GEORGE EWART WILSON, FRCS, Toronto, addressed Utica Academy of Medicine on Mar. 18 on "The Commoner Fractures of the Extremities." Dr. Herman J. Sequal, Utica, read a paper, "Medical Treatment of Acute Abscess of the Lungs."

Onondaga County

A SPLENDID APPRECIATION of the fine maternal welfare campaign in Syracuse appears in *Briefs*, published by the Maternity Center Association in New York City. It begins:

Syracuse, that industrial city on the banks of the Erie Canal in New York's famed Mohawk Valley, is just now in the midst of a two-fisted campaign to provide good maternity care. No stone is being left unturned by a spirited committee of doctors from the Onondaga Medical Society to make the people of this community and the surrounding rural areas aware of the need of adequate attention during pregnancy and how needless deaths of mothers may be prevented.

There is no mincing of words in this campaign. The facts are told frankly and forcefully that mothers of Syracuse die or are crippled because they are not getting the care they should have. The people are warned that one-quarter of the maternity deaths are caused by abortion and, praise be, the newspapers print it and the radio stations broadcast it. Mothers are warned of the dangers of delay in seeking good medical advice and every effort is being pressed to make good care available to every mother who needs it.

A complete description of the Syracuse campaign, including outlines of the refresher courses, sample newspaper stories and radio talks, copies of the certificates of attendance, etc., may be secured free from the Maternity Center Association.

THE MARCH MEETING OF THE Women's Auxiliary to the Onondaga Medical Society was held on March 2 in the reception room of the Crouse-Irving Hospital. Dr. J. J. Buettner spoke on "Medical Legislation." "Is It True What They Say About Women?" was the subject of the historical sketch prepared and presented by Mrs. James Wilson. A book review was given by Mrs. Tracey Bryant.

MEMBERS OF ONONDAGA MEDICAL SOCIETY heard Dr. William A. Groat, Dr. Francis O. Harbach and Dr. I. H. Levy at their regular meeting on March 2 at the University Club, Syracuse.

Dr. Groat was the first speaker on a series of "What's New" reports on recent advances in medicine, discussing, "What's New in Diabetes?" Dr. Harbach discussed cancer, and Dr. Levy "Hypotension."

Members of the staff of Syracuse Memorial Hospital were in charge of a scientific program presented before the Syracuse

Academy of Medicine at its meeting on March 16 at the hospital

Ontario County

DR LEON A STETSON was host to the Canandaigua Medical Society on Mar 11 in his home Dr George Wright, of the Clifton Springs Sanitarium and Clinic staff, spoke on "Coronary Occlusion and Cardiac Pain"

Orange County

THE NEWLY-ORGANIZED Woman's Auxiliary of the Orange County Medical Society held its first meeting at the Middletown State Hospital, March 16

Queens County

THE PROGRAM OF THE Medical Society of the County of Queens, Inc, on March 30, included papers on "Prevention and Treatment of Venereal Disease"—Percy S Pelouze, M D, Professor of Urology at University of Pennsylvania, and "The Surgical Aspect of Venereal Disease"—by David Melvin Davis, M D, Professor of Genito-Urinary Surgery at Jefferson Medical College Discussors—Drs Francis G Riley and Benjamin Derrah

THE OPEN MEETING OF the Queensboro Surgical Society was held on April 21 at the Medical Society Building The speaker was Dr Dean Lewis, Professor of Surgery at Johns Hopkins Medical School The Annual Dinner preceded the meeting

Tioga County

AT THE MEETING of the Medical Society of the County of Tioga at the Green Lantern Inn in Owego on March 2, Dr Conklin of the Robert Packer Hospital, Sayre, Pa gave a most instructive discussion and report of thirty-six cases of undulant fever The disease was discussed by the members and guests from the public health viewpoint as well as from the practioners angle The society voted to support three bills at Albany (1) Provision to remove licensure of physiotherapists, (2) Control of Medical Advertising, and (3) Nurse and Physicians lien bill A postgraduate course for the society is being arranged through Dr Farmer which will consist of five lectures at weekly intervals by members of the Long Island College of Medicine Dr Hyde reported that a joint meeting with the Bar Association of this county will probably be held later in the spring The meeting was reported by Dr I N Peterson, Secretary

Tompkins County

THE MARCH MEETING of the Medical Society of the County of Tompkins was held in conjunction with the Ithaca Civic Forum, on March 4, in Barnes Hall, Cornell University Dr Samuel J Kopetzky, Speaker of the House of Delegates of the Medical Society of the State of New York, was the speaker His address was in answer to one delivered by Prof Goodwin Watson, of Columbia University on "The Socialization of Medicine," before the Forum some time ago Dr Kopetzky gave as title to his speech, "The Point of View of Organized Medicine in Regard to Socialization of Medicine" He said

"The competitive element in American medicine, plus the character of our doctors, has given us the lowest mortality rate and the best system of medical care in the world

"We do not want to see torn down what we have built up, in the quality of our medicine or the education of our students Give labor adequate wages in this country and there will be no need for socialized medicine"

Ulster County

DR CLAUDE E HEATON, assistant clinical professor of obstetrics and gynecology, New York University College of Medicine, at tending Bellevue and French Hospitals, was the guest speaker at a special meeting of the Medical Society of the County of Ulster, held at Kingston on March 2

Warren County

DR REGINALD FITZ of Boston, spoke at a meeting of the Glens Falls Academy of Medicine on March 12 in the Academy Auditorium, on "Insulin-Protamine."

Westchester County

DR LOUIS V WALDRON, Yonkers' third Health Commissioner in seventeen months, died suddenly on March 13 at St. John's Hospital as the result of injuries he suffered Washington's Birthday in an automobile accident at Nyack He was sixty-nine

DR WALTER GREY CRUMP, fellow of the American College of Surgeons and consulting surgeon at the Mount Vernon Hospital, discussed "Appendicitis" at a meeting of the Mount Vernon Medical Society on March 11

Hospital News

Hospital Cooperation in Queens County

AN ORGANIZATION WAS FORMED in April last year known as the Queens County Voluntary Hospital Conference, made up of representatives of the six voluntary hospitals in the county and representatives of the County Medical Society. As reported by Dr H P Mencken in the County Society's *Bulletin*, this group has met regularly each month and is operating under a Constitution and By-Laws. The Conference has agreed upon a certain fixed standard of income under which patients may be admitted to their clinics and be entitled to free services in the hospital. Basically, this plan is the same as that accepted by the Municipal Hospitals of the City of New York. The hospitals have also agreed to avoid self-advertising through press notices, and this particularly applies to their outpatient departments.

The Hospital Conference Group recently met with representatives of the twelve proprietary hospitals of Queens. The Hospital Committee informed the representa-

tives of the proprietary hospitals that they would be required to submit a Medical Board of six members, all of whom shall be members of our County Society. This Medical Board would represent the various departments of medicine and surgery, including one pathologist. It will be the duty of this Board to arrange for monthly staff conferences, maintain adequate case records and be responsible to the Medical Society for the professional conduct and ethics of its institution. Each hospital will be expected to comply with all the requirements as specified by the Department of Hospitals and the Council of Medical Education and Hospitals of the American Medical Association.

Those proprietary hospitals that agree to this plan and conform to the minimum standards outlined, will receive a Certificate of Approval from our County Society for a period of one year and will be recommended to the American Medical Association for registration.

A Word to Nurses—Waste Not, Want Not

A PLAIN TALK WAS GIVEN to an audience of nurses out in Colorado the other day by Dr William S McNary, President-elect of the University of Colorado School of Medicine and Hospitals at Denver. The main theme of his remarks was the need of looking after the hospital supplies with a watchful eye to see that they were not wasted. Don't throw away slices of bread or pour orange juice down the drain, he said, for if everyone does things like that, hospital food costs will mount, economies will be necessary, and the nurse will find her own menu trimmed along with the rest. So chickens and sins will come home to roost.

Sins of the patients have to be watched, too. Some of them have a way of walking off with the hospital linen!

Stealing is a problem in every hospital, especially the theft of linens. For some reason, many otherwise honest persons do not feel it is

wrong to take home towels or sheets or even blankets from hotels and hospitals. It is necessary to replace thousands of pieces of linen which disappear each year. Sometimes it is possible to trace a source of loss and plug the leak. More frequently this is impossible. Try as we will to be careful, things disappear. You will be surprised to know that probably more diapers are taken each year than any other single item. Why? We do not know, but at almost every inventory, hundreds of diapers must be issued to make up for those which have vanished.

Here is a field in which the nurse, more than anyone else, can assist the hospital to save. Teach those under you by precept and example to be economical in the use of linen, to use the proper articles for the proper job. A towel may make a good duster or floor rag, but once so used may be of no further use as a towel. The well run hospital will keep badly stained linen separate. When treating a burn case, or any patient on whom quantities of staining medications are applied, use stained linen whenever possible. Do not

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voted \$10,983 for modernization and repairs at the J N Adam Hospital at Perrysburg to give room for thirty-five more patients

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A REQUEST OF \$300,000 by the late Leo L Doblin to the Hospital for Joint Diseases will enable its directors to campaign for the remaining \$350,000 needed to erect a new outpatient building with all modern facilities for treatment of ambulant cases. The present outpatient building will be utilized for a pharmacy and other much needed purposes

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A LETTER TO Mayor LaGuardia from Homer Folks, president of the New York City Visiting Committee of the State Charities Aid Association, expresses approval of the provisions for new hospitals included in the Mayor's proposed capital outlay budget and pays tribute to the work of Hospitals Commissioner S S Goldwater

"These items," said Folks, referring to the hospital items in the proposed budget submitted to the Board of Estimate, "a tuberculosis hospital in Queens, a tuberculosis hospital in the Bronx, an administration building at Bellevue, a chronic hospital for Kings County, a psychopathic pavilion for Kings County, an addition to Harlem Hospital, a convalescent day camp and a consolidated dispensary for Welfare Island, are outstanding and emergent needs of the Hospitals Department."

APPEAL BY HORTON MEMORIAL Hospital at Middletown that those 2,792 of its former patients who owe the institution money observe the hospital's eighth anniversary by paying at least one dollar on their accounts which aggregate \$102,000 brought in \$275 82 from 135 persons. Dr Arthur S Moore, superintendent, reported. Dozens of other persons promised by letter or telephone to send in further payments after "pay-day"

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NEW WINDSOR IS SEEKING to prevent Orange County from acquiring the Cooper Hewitt estate property as the site of a tuberculosis hospital

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ABOUT 400 EMPLOYEES of Beth Israel Hos-

pital, Stuyvesant Park East, Brooklyn, have received pay increases under an agreement signed by David Podell, president of the Beth Israel Hospital Association, with the Association of Hospital and Medical Professionals, Local 20094. The following increases were allowed

With reference to Dr Goldwater, Folks told the Mayor his organization again wishes to place on record "our unqualified admiration and appreciation of the work of your Hospitals Commissioner"

"Although much remains to be done in the way of hospital construction, equipment and staff," said Folks, "it is a simple truth to say that the needs of the sick poor in the public hospitals of this city have never received such intelligent, continuous and competent attention as they are receiving under your Commissioner of Hospitals"

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A NEW \$500,000 SIX-STORY wing is under construction at the Brooklyn Hebrew Home and Hospital for the Aged

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A CAMPAIGN will start on June 2 to raise \$500,000 to enlarge and modernize the Mercy Hospital at Hempstead, L I. One hundred doctors have pledged support

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THE ISRAEL ZION HOSPITAL in Brooklyn is erecting a new \$600,000 eight-story addition

• • •

THE NEW ROCHELLE HOSPITAL will add a \$400,000, six-story building to its present facilities. The new building will have six operating rooms, one with an amphitheatre for postgraduate surgical instructions. It will also have a children's ward and will provide beds for sixty additional patients

News Notes

Minimum monthly compensation of \$60 for all employees now receiving from \$45 to \$50, minimum of \$62.50 for all receiving from \$51 to \$57, a 7½ per cent increase for all employees receiving from \$60 to \$84, and five per cent increase for all employees receiving from \$85 to \$170

In announcing the increases the Association of Hospital and Medical Professionals pointed out that "no employee of Beth Israel Hospital has ever been dismissed for union activity"

hoard linen against future needs, or you will deprive some other patients of the clean articles they need. Watch for thefts. You do not have to be a policeman, but remember that every sheet, towel, blanket or diaper taken from the hospital means just that much less you have to work with until it is replaced, and that the cost of replacing it takes funds which might install some equipment or labor-saving device which is badly needed in your work.

Extravagance and carelessness are two other sins that turn out to be costly, it appears.

The nurses' biggest responsibility toward supplies, is in their use. The use of two towels where one will do, the syringe laid carelessly on the edge of the table, the hot water bottle dropped in the laundry bag where it may be ruined by steam in the laundry, the expensive instrument treated carelessly, all these and hundreds of other everyday happenings can be prevented by the alert nurse who is interested in doing a good job and saving money for her institution.

The proper use of supplies, the right thing for the right purpose, should be kept in mind.

The maid does not need to use surgical soap to wash her hands, ordinary soap is good enough. Scratch pads are provided for notes, and backs of expensive forms should not be used instead.

Nurses can be of great help in keeping these costs down. Plastering and painting are expensive. A cart or bed rammed into the wall may necessitate doing over a whole room at considerable expense. Much time and money are spent every year repairing doors damaged by the carelessness of those who push linen trucks, stretchers, etc., through them without looking where they are going. Paint can be ruined by improper washing, faucets left only partially closed not only waste water, but must be repaired frequently. Awnings left up in the rain or wind must be replaced. Nurses can help cut down accidents by taking proper precautions in time. Loose shelves may need bracing, an elevator door may be faulty, or a storage cabinet may need to be secured against the wall to keep it from falling on someone. The nurse can help her institution save money and keep a better appearing place for her work if she will cooperate with the maintenance crew.

Improvements

PLANS HAVE BEEN DRAWN for a new three-story brick hospital at Massena, to cost \$130,000 and care for fifty patients.

. . .

A NEW FORTY-PATIENT wing is planned for the South Nassau Community Hospital.

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THE BAPTIST HOME at Fairport has added five new rooms for patients, a nurses' room, diet kitchen, and large glass-enclosed corridor.

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A NEW CITY HOSPITAL to cost \$425,000, not including equipment, is projected at Rome.

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AFTER DRAWING THE FIRE of health authorities for years, the Municipal Hospital at Niagara Falls is to be modernized in a \$45,000 WPA project. Physicians had long termed the present hospital inadequate to the city's needs.

. . .

THE BOARD OF MANAGERS of the Schenectady County Tuberculosis Hospital are

asking for new buildings to house the staff, to cost \$50,000. A year ago the board reported to the supervisors that the buildings for housing male employees, doctors, nurses and women employees "are in almost unlivable condition and should any thing happen through fire or otherwise, the board of managers and the hospital staff cannot be held responsible."

. . .

THE BOARD OF ESTIMATE has authorized the expenditure of \$23,200 to purchase furnishings and equipment for the maternity building at Lincoln Hospital in New York City, which is being modernized as part of a WPA project. The remodeled maternity building, ready for occupancy about May 15, will accommodate seventy-two adults, an increase of forty over the previous capacity.

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BETH DAVID HOSPITAL had a dinner on Feb. 21 at the Commodore Hotel to celebrate the raising of \$75,000 for the equipment of its new building at Ninetieth Street and Lexington Avenue.

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THE BUFFALO COMMON COUNCIL has

Events

MORE THAN 100 mothers from Huntington, Northport, Commack, Greenlawn, Melville and other sections of the town of Huntington honored Miss Emma McIlwain, head of the maternity department of Huntington Hospital for the past eighteen years, with a testimonial dinner at Chateau Maggi, South Huntington, on Mar 11

Nearly 2,000 babies have been born at the Huntington Hospital during Miss McIlwain's period of service

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MEMBERS OF THE BOARD of trustees of the Knickerbocker Hospital gave their annual dinner for members of the medical and

surgical staffs of the hospital and their wives on March 18 at the Ambassador. Plans were discussed at the dinner for the celebration May 23 of the seventy-fifth anniversary of the founding of the institution. The Knickerbocker Hospital was opened in a tent seventy-five years ago to care for sick and wounded soldiers returning from the Civil War. It now provides 50,000 days' treatment each year. For a number of years it was known as the J Hood Wright Memorial Hospital

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THE FIRST ENTERTAINMENT and ball of the Israel Zion Hospital in Brooklyn will be held on May 22 at the Waldorf-Astoria

At the Helm

CLARENCE E WILLIAMS succeeds the late Capt. William G Mayer as president of the Board of Managers of the Utica State Hospital

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MISS EDNA STRACK, assistant superintendent of Tuxedo Hospital for nine years, has been promoted to superintendent.

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DAVID WERBELOWSKY has been re-elected president of Beth Moses Hospital in Brooklyn.

. . .

CHARLES L AUER has been re-elected president of Bushwick Hospital in Brooklyn

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WILLIAM H WALKER, president of the board of Trustees of the Flushing Hospital and Dispensary for the last twenty-two years and a member of the board for twenty-eight years, has retired from the presidency to have more time to study art. Mr Walker, who is sixty-six years old, classifies himself as a student of color

Although he is giving up the hospital presidency to have more time to study art, Mr Walker is no dilettante in the field, he has been a successful professional cartoonist and illustrator for many years

Mr Walker has been a regular contributor to the old *Life* for twenty-six years with social and political cartoons, and his drawings were published in leading periodicals and newspapers

Mr Walker has carried the hospital through many trying financial difficulties. During the 1918 influenza epidemic the facilities were overtaxed, from 1919 to 1926 there was a shortage of nurses because other fields could offer more opportunity. Then the population growth of Queens made added space a necessity. Under Mr Walker the hospital obtained \$823,000 in a drive for funds for an addition and new nurses' home. Then the depression came and it took a skilled hospital administrator to overcome the deficits of the early part of the slump

Now Mr Walker feels he has earned his rest. He will continue, however, as a member of the board

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THE RESIGNATION OF Dr Claude W Munger as director of Grasslands Hospital is announced by the Westchester County Department of Public Welfare. Dr Munger will leave May 15 and become director of St Luke's Hospital in New York. Dr Arthur R. Bowles assistant to Dr Munger, will become acting director pending the appointment of a successor by Miss Ruth Taylor, Commissioner of Public Welfare

HOSPITALIZATION INSURANCE is being considered for Elmira

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EXCESSIVE BILLS BEING PROBED

CHARACTERIZING a \$669 bill charged against a patient for seven days in Kings County Hospital as "an injustice to the public and the profession," Dr Frederic E. Elliott, has turned over to Hospitals Commissioner Goldwater a full report of the case

Dr Elliott, chairman of the economics committee of the State Medical Society, made the disclosure following an Aldermanic committee hearing on two Municipal Assembly bills affecting doctors

Dr Elliott explained that a claim for that amount had been filed by the City of New York in the Surrogate's Court against the estate of a man named Anthony Surfaro following the latter's death in Kings County Hospital. About \$300 of the total, which includes \$527 for surgical services, has already been paid to the city by the estate, Dr Elliott said

In another case, according to Dr Elliott, a patient named Levitan was charged \$678 for fifty-six days in the same hospital. Of that amount, he said, \$302 was for surgical services which also was paid to the city

Dr Elliott pointed out that although the bills were excessive not a single doctor benefited financially from these transactions. He said the State Medical Society favors the amendments, already approved by the Aldermanic Local Laws Committee, which would permit doctors to collect fees in non-indigent cases and those involving workmen's compensation and accident claims where the patient collects damages

Under the present law, all doctors, except a few departmental employees, must work without charge on all types of cases which come into city hospitals

The hearing was attended by representatives of the five county medical societies, including Dr Thomas A. McGoldrick, president of the Kings County Medical Society. All the doctors and Commissioner Goldwater favored the amendments and it was unanimously approved by the committee

Discussing Dr Elliott's revelations following the hearing, a physician said the average doctor would be willing to perform any type of operation and, in addition, stay

night and day with a patient for seven days for one-third of the \$527 charged for surgical services. He pointed out that at the rate of \$669 a week, the yearly total would amount to \$35,000 a year

Dr Goldwater said he would investigate the disclosures made by Dr Elliott.

Dr Goldwater told *The New York Post* that such fees now amount to more than \$600,000 a year. He said that under the present law, the hospital must collect fees in non-indigent cases, but is not permitted to compensate doctors

Not all of this money represents doctors' surgical and medical care, but estimates have been made that more than half, or about \$300,000, represents fees charged by the Department of Hospitals for services given free to the city by doctors

. . .

A MERGER OF THE two largest Jewish welfare bodies in New York City is contemplated, embracing ninety-one institutions in Manhattan and the Bronx and twenty five in Brooklyn. The New York Federation group includes seven large hospitals, among them Mount Sinai, Hospital for Joint Diseases, Montefiore Hospital for Chronic Diseases and Beth Israel. Included in the Brooklyn group are the Jewish Hospital of Brooklyn, Beth Moses Hospital and the East New York Dispensary, together serving 80,000 patients annually

. . .

THE NEW YORK CITY DEPARTMENT OF HOSPITALS ANNOUNCES that 325 vacancies in internships in thirteen general hospitals throughout the City were filled through examinations just completed

Applications for the 325 internships were filed by 3,858 individuals. Of the 325 appointed, 253 presented A.B. or B.S. degree diplomas. In addition, twelve of the appointees hold Masters' Degrees and two are Doctors of Philosophy

Five medical colleges contributed 183 of the new interns, eighty-seven coming from Bellevue, twenty from Cornell, twenty-eight from Flower, twenty-one from Long Island, and twenty-one from Columbia. Of the internships, 225 were combined medical and surgical appointments, forty-one were medical, twenty-three surgical, twenty-four special, ten psychiatric, and two pathological appointments

where it is his interest to exaggerate. If he were to explain to those whom he is to influence that he is acting under such an employment, and as a solicitor, then there would be nothing to put him on a different footing than other known agents. But no such explanation was contemplated, and none given. And however honest a man's actual intentions may be, and however truthful he may be, there is a direct temptation to misrepresent, and a direct danger that the misrepresentation will operate injuriously to the parties dealt with. Such secret agreements by persons putting themselves in positions of confidence come within recognized prohibitory rules as tending to defraud. In such cases we cannot expect to find precisely analogous precedents, but the principle is familiar and of long-standing. It belongs with the class of combinations to raise prices by biddings at auctions, or other devices whereby the illegality is not worked out merely by success, but inheres in the transaction itself, and with those contracts where success is dependent upon personal influence and persuasion, having the appearance of disinterestedness.

Operative Treatment of Diverticulum

A doctor who specializes in surgery was consulted by a man with complaints of difficulty in swallowing. A complete physical examination led to a diagnosis that the patient was suffering from a pulsion diverticulum of the esophagus interfering with swallowing since food accumulated in the said pouch. The doctor performed an operation upon the patient exposing the diverticulum and changing its direction by displacing the sac upwards instead of downwards. He felt that such a procedure was more advisable rather than the complete removal of the diverticulum. Following the operation the patient's recovery was good with the exception of a slight complication known as a Horner syndrome on the left side consisting of a slight droop of the eyelid, a contraction of the pupils, and an insignificant recession in the eyeball. This, the doctor determined, was due to some disturbance in the sympathetic nerve of the neck unavoidably caused in the course of the operation.

The doctor subsequently instituted an action against the patient to recover his fee for professional services rendered. A counterclaim was interposed, based upon alleged malpractice and breach of contract. The particular claim was made on behalf of the patient that the complication referred to was caused by the doctor's negligence and that the doctor had failed to carry out his contract when he operated upon him, since he did not remove the diverticulum

but merely altered its position. The case was tried before the Court and jury and at the conclusion of the testimony on behalf of the defendant-patient, the plaintiff's motion to dismiss the counterclaim was granted and judgment was directed in favor of the doctor in the full amount of his bill.

Treatment of Asthma

A married woman about thirty-five years of age consulted a doctor specializing in internal medicine with respect to a condition of asthma which she stated to the doctor had troubled her for about ten years. The doctor examined her and put her through a series of tests which included a scratch test with the instillation of food solutions. He made an examination of the patient's blood. The patient sustained no ill effects from any of the tests which the doctor made. Upon the completion of his examinations, he instituted treatment consisting of a series of injections of auto-genous vaccine prepared from sputum. The injections were made in the patient's arms and legs and continued from time to time for a period of nearly two years. The asthma improved considerably but, at the end of that time, the patient informed the doctor that she was going to Florida. He told her that he believed that she should continue treatment in Florida and gave her a letter containing a history of her case in order that some other doctor could be in a position to continue the same type of treatments that he had been using.

The next the doctor saw of the patient was about ten months later when she returned complaining of pain in her leg. Examination showed no objective symptoms but since she complained of pain while walking he had x-rays taken of the region and the reports led to the conclusion that a foreign body which had the appearance of lipiodol was lodged in the tissues of the patient's right buttocks. The doctor suggested an operation for the removal of the condition but the patient would not consent. He thereupon suggested physiotherapy and a few such treatments were administered to the patient. She discontinued returning to the doctor and instead commenced a malpractice action against him charging that he had been negligent in administering injections to her and had caused her to sustain the painful injuries of which she had complained. At no time had the doctor administered lipiodol.

Before the action was reached for trial, the plaintiff died thereby abating the action and finally disposing of the same.

Medicolegal

LORENZ J BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Compensation of Physician Contingent on Outcome of Litigation

Recently a case came before the highest Court of a nearby State in which the question presented was the validity of an agreement made by a physician that his compensation for treating a patient was to be contingent upon the recovery in a suit for damages.*

The matter arose when a woman named M sustained certain serious injuries in an accident which she subsequently claimed was caused by the negligence of another Dr W was called to attend her with respect to those injuries. She was not able to pay cash for the medical care and attention required, so at the beginning of their relations, an oral agreement was entered into between M and the doctor whereby he would attend her throughout her period of disability and in return would receive twenty per cent of the verdict received by her from the person who caused the injuries. It was also agreed that if the verdict went against the patient, the doctor would receive no pay. Under such an arrangement the patient remained under the care of Dr W for more than two years.

When M's damage suit was about to be reached for trial she protested against her liability under the alleged contract, and was extremely reluctant to go ahead with the trial. The doctor urged her to go through with the case, threatening suit against her if she dropped the case. He, at that time, offered to withdraw from the arrangement if M would pay him a certain fee for the services he had rendered, but the offer was declined.

The negligence action was tried before a jury and resulted in a verdict in favor of M of \$7,200. Dr W testified upon the trial as M's witness and was of further assistance to her case by obtaining for her the testimony of another medical expert witness.

Thereafter Dr W tried to collect the twenty per cent agreed upon at the beginning of his care of M, and brought an action against her to recover the sum of \$1,440 with interest.

When the case came up for trial before the Court without a jury the material facts

were shown to be substantially as outlined above. The Court made a finding that the agreement was one which from the outset contemplated that Dr W would testify on behalf of M when her case came up in the future. Judgment was directed in favor of the defendant which was confirmed by the higher Court.

It was pointed out in so deciding that the facts present a case where a champertous agreement had been entered into (Champerty has been well defined as "the unlawful maintenance of a suit in consideration of some bargain to have part of the thing in dispute or some profit out of it, where upon the champertor is to carry on the party's suit at his own expense.") The Court ruled that the agreement was against public policy and void, and cited an earlier decision,* from which the following quotation well summarizes the problem:

When we come down to the real nature of this alleged contract, it is one which contemplated that plaintiff was to give his view of the facts relating to defendant's physical condition and injuries, as they had existed and been developed under his observation, and the medical bearing of these facts, and the extent of past or future dangers and sufferings. While it is probable, from the medical testimony, that the present condition and future prospects can be got at with considerable certainty, yet it is also possible that some complications may escape detection, and some appearances may be ambiguous, unless explained by previous symptoms or conditions. Beyond this there can be no doubt that suggestions may often be made by one physician which will and others, to whom they might not have occurred from their own experience or observation. Under these circumstances, it is at least possible, if not probable, that the judgment ultimately formed will depend very much on the facts and opinions and the coloring of the statements furnished by the person relied upon as best informed. He puts himself in a position where both parties are expected to rely upon him and to act upon what he says.

When under such circumstances, he makes the disclosure of his knowledge and opinions the subject of a contract, whereby his compensation is to depend on the amount obtained by his employer by reason of the disclosure, it is plain that he puts himself in a position

* Weinberg v Magid, 189 N E 110

* Thomas v Caulkett, 24 N W 154

meetings like to see them in print. "We condense them as needed, and allow for them thirty to fifty per cent of the total pages of printed matter," says Dr Buckman. "We never slight one whose manuscript is submitted. This is of prime importance in our society." Another editor goes still further. Dr George Hay, editor of the Cambria County *Medical Comment*, prints pictures and sketches of all new members, thus giving them a warm hand of welcome, and identifying them to the older members. He also presents pictures of other members on occasion, with items of interest, and prints cuts and obituaries of those who die. The members thus receive hail and farewell, and an occasional pat on the back along the way.

"No jokes," says Dr Hay, for "we believe a scientific journal is no place for levity." Dr Seabold, however, thinks that "one page of medical humor will very often hold the bulletin on the member's desk a few days longer," and Dr Parker grants that "it does no harm to inject a little humor now and then into the bulletin." Tastes differ, thanks to whatever natural or divine force shook up the human cocktail of desires, emotions, aspirations and what not. As Eugene Field wrote

De gustibus, tis stated, *non disputandum est*,
Which meaneth, when translated, that all is
for the best.

How the trick of getting out a county bulletin is done is told in a few words by Dr Parker. As he relates it

To facilitate the work, it is divided. Dr Wallace W Dill takes care of personal items. He gets the news, and he has the material in on time. Dr Herbert A Bostock reports meetings. His job is to take notes or obtain manuscripts if possible. He also is reliable and prompt. The minutes of our meetings are always sent promptly by our secretary. With two members of the committee functioning so admirably the third member, the editor, has only to place the material properly, add valuable clippings from other periodicals, write an editorial putting the "bull" into the bulletin so to speak, supply it with horns, and see that it is fed properly.

"Inspiration" and "Perspiration" Do It

As our eavesdropper cocks an ear to catch the next item of the Pennsylvania famlv powwow, the State Secretary, Dr Donaldson, calls upon Dr Arthur B Flem-

ing the Schuylkill County Secretary, to explain the kind of magic he uses to secure and hold new members. He refers to Dr Fleming as to a "go-getter."

In reply, Dr Fleming says "Here's the prescription, Inspiration—one part, perspiration—three parts." He would have us feel that it's all perfectly simple. The "inspiration," it seems, consists in studying the local papers for items about the prospective member, which are clipped and filed. The prospect's medical school and birthday are carefully noted. "When friend physician becomes a fond papa for the first or fourth time, remember to send greetings. But when he gets somewhat elated on New Year's eve at the country club—hits a telegraph pole, doing damage to himself and the car—forget it."

Then comes the "perspiration." Hard work is necessary, declares the "go-getter" of Schuylkill County. And this is how he does it.

Having learned something of our prospect, his home life and the field in which he lives and works, we are ready for our contact or contacts.

We have tried to have him attend one of the most worth-while meetings of our society via one of his medical neighbors already a member of organized medicine. If he accepts, the ice is broken and usually the rest is easy. He may go of his own accord to some other nearby, out-of-our-county meeting, where we can become just a little better acquainted.

We have dropped in to see him when passing through his town. We know his wife and she tells hubby who called. Sooner or later we get him at home in a good humor, answer his questions and objections, and he signs on the dotted line.

Does this satisfy him? Not at all. The end of the year, March 31, soon approaches, and the new member has not come across with his dues. In fact, he is one of fifty or sixty who are delaying. They are scattered all over the county. So our go-getter sets aside two or three hours every possible March afternoon and drives out one way today and another tomorrow, mapping his route in advance and calling on the phone to clinch the appointments. Few delinquents escape. It is said of some salesmen that they could sell snow shovels in a certain warm locality. The Schuylkill County folks seem to have secured one of that tribe for secretary.

Across the Desk

"Listening in" to a Sister State

EAVESDROPPING ON THE NEIGHBORS is perhaps permissible when the neighbors hold their family confab, so to speak, out on the front porch with all the lights turned on. The secretaries and editors of the Pennsylvania county medical societies have been doing something just about like that. They have come right out in print and told how they run their county *Bulletins* and what they do to make their county meetings go successfully. They can hardly blame us then, if we overhear what they say, and pass it along to our secretaries and editors here. The "eavesdropper" is supposed to get the drippings from the roof down the back of his neck, but, instead, we get a few useful hints that may perhaps prove of value to some of our county organizations.

Old Argument Takes Haywire Aspect

No one can look out over the medical activities around our own State without noticing the growing number of county *Bulletins* that mirror the doings of their various societies. They are not only growing in number, but in size and excellence. It would seem inevitable that other counties are debating with themselves the advisability of launching similar sheets. The usual objection is that "we can't afford it, it wouldn't pay, and someone would have to shoulder the deficit, who would do it?" That is usually a silencer. Well, as we listen in on our Pennsylvania friends, we hear a report from the Lebanon County editor, Dr. Paul S. Seabold, that seems to knock that argument into a cocked hat, if the expression may be pardoned, or shiver it to smithereens, if that is any better.

The Lebanon County society has but forty members. It is a sparsely settled county, with only one good-sized town, Lebanon, with some 25,000 population. But last year the society got out a sixteen page monthly bulletin, half reading and half advertising, which not only paid for itself, but made "a profit sufficient to pay the expenses of all the social features of our stated meetings." Encouraged by this feat,

the society has increased the magazine to twenty pages, and expects it to take care of the entertainment expenses of the society for the year.

Nor is that all. Dr. Seabold had the printer get out one of those old-time pointing hands, and says

"The attendance at the meetings of the Lebanon County Medical Society was increased 150 per cent in less than 6 months after the first issue of *The Bulletin*."

His explanation of that is that a postcard announcement or even a formal letter, if read, is thrown into the waste basket and in a few hours is forgotten, while a publication of from eight to twenty pages, with the meeting announcement on the cover, is usually not discarded, and remains on the desk as a constant reminder of the coming meeting and program.

A friendly tip on advertising is quietly confided by Dr. Frank C. Parker, Editor of the Montgomery County *Bulletin*. Advertising was formerly "a nightmare," he confesses—"we could not collect." But now, "since turning all the advertising over to the Woman's Auxiliary, the net income to go to the State Society Benevolence Fund, we have more advertisements than ever before, and the women are excellent collectors."

Does this bear out Kipling's dictum that "the female of the speeches (or is it species?) is more deadly than the male?"

Of, by, and for the County Society

The county publication "should be a family-circle affair," says Dr. Parker, and that seems to hit off, in a phrase, the feeling of all the Keystone county editors. It should be of, for, and by the county society. The important things, declares Dr. Buckman, of Luzerne County, are the questions of purely local interest. The *Bulletin* tries to bring the members to the meetings, but many of course find it impossible to come, its duty then is to take the meetings to them, by adequate and interesting reports.

Members, too, who read papers at the

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers

RECEIVED

The Management of Obstetric Difficulties By Paul Titus, M D Octavo of 879 pages, illustrated St. Louis, The C V Mosby Company, 1937 Cloth, \$8 50

Physical Therapeutic Methods in Otolaryngology By Abraham R. Hollender, M D Octavo of 442 pages, illustrated St. Louis, The C V Mosby Company, 1937 Cloth, \$5 00

Physical Diagnosis By Ralph H Major, M D Octavo of 457 pages, illustrated Philadelphia, W B Saunders Company, 1937 Cloth, \$5 00

Dietetics for the Clinician. By Milton A. Bridges, M D Third edition Octavo of 1055 pages Philadelphia, Lea & Febiger, 1937 Cloth, \$10 00

Childless A Study of Sterility, Its Causes and Treatment By Sam G Berkow, M D Octavo of 307 pages, illustrated New York, Lee Furman, Inc, 1937 Cloth, \$3 00

Diseases of the Newborn. By Abraham Tow, M D Octavo of 477 pages, illustrated. New York, Oxford University Press, 1937 Cloth, \$6 50

Here's to Crime By Courtney Riley Cooper Octavo of 454 pages Boston, Little, Brown & Company, 1937 Cloth, \$2 75

Operative Surgery By Alexander Miles, M D and D P D Wilkie, M D Second edition Octavo of 631 pages, illustrated New York, Oxford University Press, 1936 Cloth, \$7 25

The Cure of High Blood Pressure by Respiratory Exercises By Lothar Gottlieb Tirala, M D Octavo of 71 pages, illustrated New York, B Westermann Co Inc., 1937 Paper, \$1 25

A Hand-Book of Ocular Therapeutics By Sanford R Gifford, M D Second edition, thoroughly revised Octavo of 341 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$3 75

Taylor's Practice of Medicine. By E P Poulton, M A Fifteenth edition Quarto of 1136 pages, illustrated Baltimore, William Wood & Company, 1936 Cloth, \$8 50

Heart Disease By Paul Dudley White, M D Second edition Octavo of 744 pages, illustrated New York The Macmillan Company, 1937 Cloth, \$7 50

An Introduction to Pharmacology and Therapeutics By J A Gunn, M D Fifth edition 16mo of 240 pages New York, Oxford University Press, 1936 Cloth

REVIEWED

The Oxford Medicine By Various Authors Edited by Henry A. Christian, M D Volume 7, Psychiatry for Practitioners Quarto of 634 pages New York, Oxford University Press 1936 Cloth, \$10 00

Psychiatry for Practitioners by Various Authors Edited by Henry A. Christian, M D [Reprinted from Oxford Loose-Leaf Medicine.] Octavo of 646 pages New York, Oxford University Press, 1936 Cloth, \$6 50

This work of 646 pages forms volume 7 of the "Oxford Medicine" series edited by Dr Henry M Christian of Harvard. It consists of monographs by a group of eleven eminent psychiatrists including such names as Earl Bond, professor of psychiatry at the University of Pennsylvania, Clarence O Cheney, professor of psychiatry at the College of Physicians and Surgeons, New York, D K. Henderson, professor of psychiatry at the University of Edinburgh,

Eugen Kahn, sterling professor of psychiatry at Yale University, and William A White.

The volume is entitled "Psychiatry for Practitioners," but the reviewer respectfully submits that it would have been better to leave the practitioners out, as most of the contributors write clean over the head of the average general practitioner of medicine, repeatedly using highly technical terms without explanation or definition, terms that would be entirely devoid of meaning unless one had made a considerable study of psychiatry. A notable exception to this criticism is Dr T A Ross of London, England, whose article on the psychoneuroses shows evidence of having really been written for the general practitioner. Besides being extremely technical, most of the monographs are too detailed for the man who is interested in psychiatry only as a side line. As an example of

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W 42nd St., N Y C.) postage prepaid. Order must be accompanied by remittance covering published price

To Each According to Its Need

When it comes to programs for the county meetings, it can only be said that every county society knows its own needs best, and what is good for one may not be the thing at all for another. Lycoming County goes in for the best scientific programs it can afford, with two all-day clinic meetings in the spring and fall. "It requires money to carry out such programs, but it is a fine investment," reports the Secretary, Dr. Brenholtz. "Make your society's annual dues sufficient to provide good scientific programs."

Another county finds that the discussion of everyday problems is more suited to its membership. Says Dr. Perrine, of Mercer County:

Since the membership of small county medical societies consists largely of general practitioners, programs must converge on their interests.

The general practitioner is interested in the solution of the most common problems in medicine. He has only an academic interest in rare and unusual conditions. He does not care for long reports on research or laboratory subjects.

It is the *Pennsylvania Medical Journal* that affords this intriguing glimpse into the machinery of the county publications and programs, and if other state journals followed the example, we might have a nationwide "experience meeting" that would be helpful all around.

GERMANY'S TREATMENT OF ALCOHOLICS

What is probably the simplest treatment of chronic alcoholics in the world is found in Germany by a European survey made by Dr. Robert Fleming, of the McLean Hospital at Waverly, Mass., under the Rockefeller Foundation, and reported in the *New England Journal of Medicine*. Says Dr. Fleming:

For all practical purposes there is only one therapeutic approach to severe chronic alcoholism in Germany today, and that is the surgical approach—sterilization. To understand how this state of affairs has come about, it is necessary to realize the extent of the ideological reorientation that has taken place and to appreciate the historical events that have made that reorientation a national psychological necessity—a discussion somewhat beyond the scope of this report.

In Germany the community and the race are everything, whereas the individual is only the bearer and the transmitter of a quantum of "Aryan blood" upon the "purity" of which the destiny of the German people is supposed to depend. This essentially biologic orientation logically justifies the sterilization of those

drunkards whose alcoholism is derived from hereditary defect, and constitutes a long range point of view, the object of which is prevention rather than treatment.

Beyond this, it is a matter of relative indifference whether the individual drunkard, after having been rendered incapable of transmitting his 'drink-causing' taint, quietly drinks himself to death. As stated by Dr. Skalweit of the University of Psychiatric Clinic at Rostock, "Surely it can be of no moment to us if the really incurable habituated alcoholic, as he is designated by the Law for the Prevention of Hereditarily Diseased Offspring, finally succumbs to liver, kidney or other organic damage—indeed, we can most earnestly wish that this end should come early instead of being irrationally postponed by ever repeated institutional efforts at therapy which only lead to backsliding immediately after discharge."

With this general shift in orientation that effects the thorough subjugation of the individual to the supposed biologic interests of the community as a whole, there has resulted an almost complete dissolution of the facilities, built up so laboriously during the past half century, for treating individual drunkards.

FORE!!

The Entertainment Committee for the forthcoming meeting of the State Society is planning to feature golf to an unusual degree. Although each contestant will play but eighteen holes of golf, it will be possible for him to take part in innumerable contests, for all of which interesting prizes will be offered.

Team matches between various cities will be one of the attractions. Syracuse doctors have already been challenged by Rochester and Buffalo, and will probably have to battle with Utica.

At the same time teams from the large cities of the State and Ontario will endeavor to win the valuable Lilly Trophy.

The student will find that this book contains an answer to most questions on physiological chemistry and metabolism, even including a description of protamine that we hear so much about in relation to insulin at the present time.

MORRIS ANT

Keeping Your Child Normal Suggestions for Parents, Teachers and Physicians, with a Critical Estimate of the Influence of Psychoanalysis By Bernard Sachs, MD Duodecimo of 148 pages New York, Paul B Hoeber, Inc, 1936 Cloth, \$1 50

This is one of those common-sense books. The author knows psychoanalysis, he knows "sex" and that it is important in life, he devotes enough attention to it to emphasize that it has often received too much, and improper attention.

The rest of the little book is devoted to the general care of children from the psychic side and it is heartily recommended especially to mothers who fear that their more or less normal offsprings are going astray in morals or habits.

WALTER D LUDLUM

Synopsis of Ano-Rectal Diseases By Louis J Hirschman, MD Duodecimo of 288 pages, illustrated. St. Louis The C V Mosby Company, 1937 Cloth, \$3 50

This "Synopsis" is based upon an earlier work entitled "Handbook of Diseases of the Rectum" with fewer pages and illustrations. The book contains a clear description of proctologic procedures and operations which may, for the most part, be carried out in the office.

For anyone who feels the need for a rapid review of rectal procedures the book may be recommended.

CHARLES GOLDMAN

Illustrious Contributors to Public Health. Being the names carved on the new building to house the Departments of Health, Hospitals and Sanitation, and the Office of the Chief Medical Examiner. A Souvenir prepared for the Dedication Exercises on Tuesday, November 26, 1935. By Charles F Bolduan, MD Octavo of 33 pages, illustrated. 1936 Cloth.

The new building of the New York City Department of Health has carved on it the names of twenty-nine prominent sanitarians in the history of the world extending from Moses to modern leaders such as Biggs and Gorgas.

Even men of wide public health experience have had difficulty in identifying some

of these engraved names, and Dr Bolduan has performed a service in presenting in pamphlet form a brief description of the life and deeds of each man in so far as they relate to sanitary matters.

It is made up in attractive style and is very much worth reading.

ALFRED E. SHIPLEY

Treatment in Psychiatry By Oskar Diethelm, MD Octavo of 476 pages New York, The Macmillan Company, 1936 Cloth, \$4 00

The average book on psychiatry is a general exposition on the subject in which therapy is but briefly outlined. The book under discussion deals essentially with treatment of conditions that are grouped under the general heading of psychiatry. It is based on the teaching and methods of treatment as outlined by Dr Adolph Meyer. Throughout the book one sees the influence of the author's teacher who has played such a prominent role in American psychiatry during the last quarter of a century. The subject matter is grouped according to symptoms rather than disease entities. The treatment of the patient as a whole is stressed throughout. All forms of psychotherapy are discussed and evaluated. Physical and chemical forms of therapy are given due credit. Throughout the book one is impressed with the thoroughness and the humane approach which the author has employed in dealing with the mentally sick.

It is an excellent book, based on a rich experience—and could have been written only by an extremely intelligent and humane physician. It merits all praise that could be given to it.

IRVING J SANDS

Skin Diseases in Children. By George M MacKee, MD & Anthony C Cipollaro, MD Octavo of 345 pages, illustrated New York, Paul B Hoeber, Inc., 1936 Cloth, \$5 50

This is a book of great value, especially for those practicing among children. The author has so detailed and illustrated the common skin ailments of infants and childhood that it makes it seem a simple matter to diagnose most of them. Differential diagnosis, which is such an important phase of dermatology, is intertwined within the text so as to be of the greatest aid. Treatment is superb, prescriptions are given and for a specific reason, and yet not too many, or of the shotgun variety. This book is already being well received, and no wonder.

THURMAN B GIVAN

what we mean, the writer of the most excellent article dealing with the manic-depressive psychoses, devotes nine pages to a historical discussion of the disorder. There is present another fault which frequently occurs in works of this nature, overlapping. The first 132 pages of the book are devoted to a chapter entitled "The Beginnings of Mental Disease", the writers cover virtually the whole field of psychiatry, the remainder of the book is taken up by more detailed articles covering largely the same ground.

To summarize, the work is an extremely valuable one, representing as it does, the thought of some of our ablest psychiatrists, but, as stated above, the reviewer feels that it will be much more valuable to the psychiatrist than to the general practitioner.

The publishers have issued this work in a separate book making it available in this form for those who are not subscribers to the *Loose Leaf Medicine*.

F C EASTMAN

An Introduction to Materia Medica and Pharmacology By Hugh A. McGugan, M.D., and Edith P. Brodie, R.N. Octavo of 580 pages, illustrated. St. Louis, The C. V. Mosby Company, 1936. Cloth, \$2.75.

This book, in its first edition, is the outgrowth of attempt to revise the fourth edition of Brodie's "Materia Medica for Nurses". It covers both elementary and advanced materia medica, such as the nurse will find valuable in her work. It is ideally adapted to requirements of training schools as a textbook, being concise, comprehensive, and devoid of material unessential for a proper grasp of this important subject.

The book is based upon new editions of the United States Pharmacopoeia and the National Formulary which is commendable, and, in addition, much new material has been added from pharmacological and clinical fields. There are seventy-one text illustrations and eighteen color plates explanatory of the text, especially in relation to the circulatory and nervous systems.

The authors have presented a textbook that is worthy of high praise, and deserves a place in the library of all nurses who desire a modern reference book on this subject.

FREDERICK SCHROEDER

Text-book of Pathology By Sir Robert Muir, M.D. Fourth edition. Octavo of 994 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$10.00.

The fourth edition of Muir's Textbook of Pathology maintains the general excellence of the preceding antecedents. As a text-

book the contents conform to views generally expressed, without departing from an element of originality of ideas which is stimulating to thought. Terminology is handled in an admirable manner. The tendency of writers in pathology to devise individual nomenclature is compensated for by an alternative designation which regularly clarifies the text. Much confusion is thus avoided. The arrangement of material is satisfactory, and the illustrations are many and well done. The author has included extensive chapters in the latest developments in the field, including biochemistry, immunity, allergy, and endocrinology. As a whole, the book is one that can with out effort be highly praised, and for which, without flattery, the author is to be commended. No pathologist or earnest student of medicine can read it without profit.

MAX LEDERER

Pathology of the Nervous System A Student's Introduction. By J. Henry Biggart, M.D. Octavo of 335 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$5.25.

Detailed information of pathological processes affecting the nervous system ordinarily is brief in general textbooks. This volume was constructed as an adequate survey of neuropathology without losing contact with the general field or becoming a compendium. The subject is divided into etiological divisions where possible, and according to anatomic changes otherwise. The general style of presentation is clear, terse, and factual. The material is more than usually inclusive of recent entities and hypotheses. References are mostly to monographs and are limited to English. The illustrations are all new and excellent. The book is highly recommended for the special student and as an up-to-date handy reference in the subject.

IRVING M. DERBY

Principles of Biochemistry By Albert P. Mathews. Octavo of 512 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$4.50.

Dr. Mathews has rearranged, and completely rewritten his old text so that it has become a new work in every sense of the word. It is concise and covers all new features of biochemistry, particularly those pertaining to nutrition. He discusses the metabolism of essential body elements including vitamins. The descriptions are clear and concise. The book also contains structural formulas of hormones and amino acids as they are known today.

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PREVENTION OF CONGENITAL SYPHILIS

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It is the consensus of opinion that congenital syphilis can be prevented with adequate treatment before the fifth month of pregnancy in the vast majority of cases. This has been proven beyond all question of doubt.

No physician should withhold antiluetic treatment from a syphilitic pregnant woman, even if asymptomatic, for should the child develop manifestations of the disease it would be difficult to accept such a grave responsibility.

Every family physician and prenatal clinician should never neglect to take a careful history and physical examination, including a Wassermann test, on all pregnant women before the fifth month of gestation.

Syphilis is known as the great impersonator, it has no respect for age, color, creed or station in life, it may be dormant in the various tissues of the body, waiting its opportunity to strike and produce a devitalization of an important organ or tissue of the body. After this vital tissue has been destroyed, who can replace it?

No one wishes to see a child entering puberty or adolescence displaying evidences of the disease and denied the privileges of living a normal life, barred from marriage and propagation. But these children exist in vast numbers, they are here—living amongst us and in institutions—ghastly examples of human indifference and neglect.

We institute modern therapy for their welfare—but with what a sacrifice! It is highly gratifying to know that the authorities in power today have instituted an intensive campaign to stamp out the communicability of the early stages of the disease. Of equal importance, if not greater consideration and action should be instituted in eradicating congenital syphilis.

Let us forget for a moment the latent acquired cases which demand so much of our time and energy. Every mother wishes to give birth to a healthy normal child, free from any disease or stigmata. No greater shame could befall a woman who is sincere in the matter. We must do everything in our power to prevent such a tragedy.

Quoting from Dr Mulots' article¹ on "Syphilis in the Pregnant Woman" he states:

The still birth or the child that dies within a few hours after its birth is a tragedy to that mother. She has cheerfully borne all the discomforts of the pregnant state and has willingly forfeited many of the pleasures that that state forbids. She suffered the pains of labor and in the end, only to bring forth a dead child to be laid away unnamed. This is the bitterest, most tragic disappointment that can befall a woman. She is entitled to our warmest sympathy, her case is something to which we may well give our earnest thought and study, that we may save others from a like experience and her from a repetition of the catastrophe.

*Read before the Social Hygiene Clinical Conference New York City Department of Health
May 8, 1936*

Corrections in 1937 Directory

The Journal Management Committee of the Medical Society of the State of New York under whose supervision is published the Medical Directory of New York, New Jersey and Connecticut, as well as the NEW YORK STATE JOURNAL OF MEDICINE, here supplies, *for the first time*, corrections in the Directory designations that have been received up to April 1, 1937. The Committee suggests that these be clipped from this page and pasted into the Directory on the pages indicated.

New York

o★CANICK, Michael, 121 E 60th st. 5 to 7 Mon, Wed Thurs & Sat. Tel. Regent 4 1040 Also Bklyn L.I.O Hosp 1914 SM-8 A M A Am Cong Physical Ther Proct Beth El, Asso Rectal Surg Bklyn Wom, Chief Rectal Surg Beth El & East N Y Disps

o★COHEN, Samuel Lewis 203 W 81st st., 1 to 3 6 to 8 Tel Trafalgar 7 6050 P & S N Y 1919 XM-5 A M A, AL Leb Adj Ped Leb

*HARRISON, Albert Phillip, 101 70 126th st Richmond Hill, 1 to 2 6 to 8. Tel Cleveland 3 1330 Univ Cinn 1934. Adj Phys Jamaica

*KNIFE, William H Wellington, 40 E 61st st., 11 to 1 by nppt Tel. Regent 4-0044 P & S N Y 1903 A M A F A O S Ac Med Obst., AL R'svelt, AL SL, Obst Gonver

o★LOPEZ BOCCANEGRA, Eufemio Nicholas 181 W 110th st., 10 to 1, 4 to 8 Tel Monmouth 2-2139 Univ Md. 1916 SH A.M.A, Derm & Syph Poly O P D Asso Derm City Asst. Derm Middtown.

*MUFSON, Samuel, 220 Audubon av., 1 to 2 6 to 7 30 Tel Wadsworth 3 2169 Univ & Bell 1922. A.M.A AL Leb Asst. Gastro-Ent Poly, Asst Roent. Lin

oSOBEL, Nathan, 528 Fifth st., 9 to 10 6 to 8 Mon Wed Fri 2 to 4 Tues Thurs Fri 1 to 2, Sun 10 to 1 Tel Drydock 4-3168 Howard 1934 XM 5 Olin Asst. Surg Gonver O P D

New Jersey

The following shall be included in the information re Dr Abraham E. Jaffe, 41 Emory St., Jersey City F.A.O.P Ac Med New York City Cons. Phys Bayonne Hospital.

PATERSON EYE AND EAR INFIRMARY—869 E 19th st. Paterson, N J Telephone Sherwood 2 6900 Beds 4 SUPT Miss Grace Carmichael R N

EXECUTIVE SURGEON E J Marsh
ATTENDING SURGEONS E J Marsh
H S Willard J S Van Winkle, E A.
Atwood D Shapiro ASSISTANT SURGEONS Louis Markowitz, M Benj Park M F Birely, H W Laanwe, J P Connolly SURGEONS EMERITUS J Wm Atkinson, Joseph Payne, CONSULTING PHYSICIANS John O McCoy Frank R Sandt, Francis H Todd, J F Ben jamin, A J Reinhorn, RADIOGRAPHER B E Wilkinson M D, DENTAL SURGEON A L Hermann, D D S REFRACTING TECHNOICIANS A F Pernetti O D A Neale Jr, O D

woman is capable of absorbing the treatments with very little disturbance to the heart, liver or kidneys. It is better, however, to reduce the amount of the drug used in order to avoid any reactions or complications.

The Syphilis Clinic Committee of the New York Tuberculosis and Health Association and Bureau of Social Hygiene of the Department of Health have advocated the weekly injections of bismuth and one of the arsphenamines continuously during the entire pregnancy. These women must be treated with kindness and consideration, try to establish their confidence, use small gauge needles both for intramuscular and intravenous therapy. The outcome depends upon the proper management of the case as these women may lapse in their treatments or discontinue them altogether, due to some disagreement or reaction from the injections.

These women must be impressed with the fact that regardless of how they feel and regardless of the result of their blood test, that treatment is necessary during every succeeding pregnancy, in order to insure a normal child free from stigmata. They must be impressed with the fact that even though the child has been apparently normal, the condition of the disease may be latent and it is therefore necessary for the child to have an examination and blood test every year until puberty.

In a clinical study of 2150 pregnant syphilitic colored women, McCord⁸ found that regardless of the activity of the disease, sufficient antipartum treatment assures a syphilis free-baby in ninety-five per cent of the cases.

At the Social Hygiene Clinic of the Department of Health in Brooklyn, a clinical study of 336 case records of syphilitic mothers has been undertaken to substantiate all previous deductions and claims. Most of the women selected were multipara, diagnosed as cases of latent syphilis. Of these 336 mothers, an aggregate total of 1179 pregnancies were tabulated. 192 of the mothers were white and 144 were colored. On admission to the clinic, 328 were in the latent stage whereas eight were in the secondary stage. Of the 1179 pregnancies, 102 were treated adequately before the fifth

month of gestation, in which five terminated in miscarriages.

The viable births resulted in ninety healthy babies whose Wassermann tests, physical examinations, and x-rays of the long bones were negative. By adequate treatment we mean the treatment received from the fourth month to term, and in those cases who have been treated previously—say from eight to twelve months.

At least twelve injections of arsphenamin or its derivative and twelve injections of a bismuth or mercury preparation may be considered as a minimum for adequate treatment. This amount may be adequate to prevent the transmission of the disease from the mother to the fetus, but not sufficient to cure the syphilis in the mother.

There were seven viable births in which a diagnosis of syphilis was made by either a positive Wassermann test, physical examination or x-ray of the long bones. On taking the histories of these women it has been found that ninety per cent of them denied any knowledge of contacting a primary lesion or developing any secondaries. This may be easily explained by the fact that the primary lesion may have been cervical, and as the disease runs a milder course in women than in men, the secondary manifestations may have been very mild or possibly did not appear.

Usually a few weeks to a month after confinement, the mother is instructed to bring the child to the clinic where a careful examination is made of the child for the early signs of congenital syphilis. The blood is obtained by the syringe method, using a small gauge needle from a branch of the external jugular, or possibly from the wrist or forearm. The child is next referred for an x-ray of the long bones where evidence of osteochondritis, chondroepiphysitis, periostitis, and osteomyelitis may be present. Any one positive finding in this series of examinations stamps the child as being a case of congenital syphilis, and appropriate measures are then undertaken to institute therapy. As there were seven cases who were diagnosed as congenital syphilis, even after adequate treatment, a review of the histories and examinations revealed that the seven were diagnosed syphilitic on positive blood Wassermann

This has been substantiated many times at the various prenatal hospital clinics. It seems incredible that the great majority of the pregnant women, who have been admitted to the Brooklyn Social Hygiene Clinic for antileptic treatment, have been in the fifth, sixth, seventh or eighth month of their gestation.

Unfortunately, the majority are primipara—without any previous antileptic treatment. This is probably due to the fact that most married women wait until the sixth, seventh or eighth month before they seek medical advice or make arrangements for their confinement. Probably negligence, fear, ignorance, economical circumstances, or a feeling of good health usually interfere with the seeking of a medical examination in the early months of their pregnancy. It will be very difficult indeed to change this state of affairs unless we can possibly get the cooperation of the members of women's clubs, societies, nurses and doctors of prenatal clinics, through radio broadcasting stations, articles in newspapers and magazines.

It would be a difficult task for any state to legislate certain laws that could be used as a standard in determining the fitness for marriage of any syphilitic. The negative blood Wassermann is absolutely untrustworthy, and what are the possibilities of transmitting the disease to her offspring in cases who have had adequate treatment but where the blood Wassermann returns positive.

Even if the applicant presents a negative blood Wassermann report to the marriage license bureau, the person will conceal the fact of having had the disease, even on affidavit.

According to Stokes,² the average male patient should reach a noninfectious condition within five years, any extended clinical experience soon demonstrates that women in particular may violate all-time rules with reference to the transmission of the disease to children.

In the United States, nineteen states make venereal diseases a bar to marriage, but provide for little more than the statement of the applicant as to his freedom from them before marriage. Ten states provide penalties for the marriage of a person knowingly infected with a venereal disease, the offense ranging from a mis-

demeanor to a felony. The marriage of persons with venereal disease is void in Utah and grounds for annulment of marriage in that state, also in New Hampshire, Michigan, Vermont, and Wisconsin.

The consummation of marriage between two individuals should interest the state as much as any one concerned. According to Stokes, the evidence of syphilis in the child population, as a whole, ranges from three to five per cent. The Solomon's summarized estimates range from 17 to twenty-two per cent. Jeans noted that in St. Louis fifteen per cent of colored infants, 18 per cent of poor whites and less than one per cent of infants in well-to-do families had the disease. The state should be interested by such figures.

When we know that congenital syphilis can be prevented, why do we have our institutions crowded with the innocent victims of negligence, the blind, paralyzed, and insane? The state could appoint an examining board of physicians for each district to pass upon the eligibility of each candidate for marriage.

They should be physicians who are experienced in taking careful histories and physical examinations and taking the necessary tests for the determination of the presence of a venereal disease. All doubtful cases could be referred to a higher Board of Appeals for a disposition.

This would mean a control over cases which need certain guidance and a restraining influence. It would be necessary to make it clear to every individual afflicted with syphilis that he or she would not be barred from marriage or in having children, provided they would cooperate and abide by the decision of the Board of Physicians in taking treatment.

There is on record at the Social Hygiene Clinic in Brooklyn over one thousand cases of congenital syphilis who have been treated during the past ten years. Every phase of stigmata has been noted in these children—some blind, deaf, tabetic or parietic, others with interstitial keratitis, bone and joint involvement, nose and throat deformities, skin and glandular conditions, early and late manifestations. At least eighty-five to ninety per cent of this could have been avoided.

It has been noted by many syphilographers that the pregnant syphilitic

stigmata These are the children who are being treated today, but let us hope that with adequate treatment, even extending over a period of years that it may offer some degree of security by preventing any future outbreak of symptoms or stigmata

In conclusion, consider every syphilitic woman in the child bearing period as having potential possibilities of trans-

mitting the disease to her offspring, and immediately institute the required therapy at the first sign of pregnancy, regardless of the Wassermann, previous treatments, and symptoms

1 NEVINS ST

References

- 1 Mulot, E. L. *Long Island Medical Journal* September, 1930
- 2 Stokes, John H. *Modern Clinical Syphilology*
- 3 McCord James R. *J.A.M.A.*, 105 89, 1935

CANCER COUNCIL TO GIVE PUBLIC ADVICE

Dr C C Little, managing director of the American Society for the Control of Cancer, announces the organization of a Cancer Council, as a clearing house of information on combating the disease, to be given to the public through scientific writers in the lay press

The council, which may be enlarged later, includes Dr Frank Adair, of Memorial Hospital, appointed by the regents of the American College of Surgeons, Dr Karl Koenblum, appointed by the president of the American Roentgen Ray Society, Dr James B Murphy, of the Rockefeller Institute for Medical Research, Dr Little, of the Roscoe B Jackson Memorial Laboratory at Bar Harbor, Me, appointed by the Council of the American Association for Cancer Research, Dr James Ewing, of Memorial Hospital, and Dr Burton T Simpson, of the State Institute for the Study of Malignant Disease, at Buffalo, appointed by the directors of the American

Society for the Control of Cancer

"The Council," Dr Little said, "is an important step forward in establishing frank and friendly relations between representatives of the lay public—that is, science writers for the newspapers and magazines—and physicians and research workers dealing at first hand with the cancer problem. The American Society took the lead in the formation of this central body as a part of the general educational program now being conducted throughout the country by its women's field army

"Most of the members of the council are geographically situated so that conference either in person or by telephone can be had with a minimum of delay or waste of energy or expense. This is an essential element in the potential value of the council. Those who will apply to it for advice or information will seldom be in a position where they can afford to wait for the ordinary slower methods of correspondence"

PHYSICIANS' LUNCHEON CLUB

A group of physicians have organized the Physicians' Luncheon Club. The object of the organization is to entertain at luncheon every Tuesday those physicians who are foreign to New York City for the purpose of making their stay in New York City more hospitable, to introduce them to such physicians who are present at luncheons, to introduce the members to these foreign physicians and to assist these foreign physicians in securing such instruction, attendance at clinics, hospitals, etc as they may desire, to give short informal talks on medicosocial subjects from an international

view point. These talks would deal with medicosocial progress as achieved by every country, and would be given by foreign physicians and by physicians resident of New York representing the different ethnical groups. Members shall consist of such ethical physicians, surgeons, and specialists who manifest their desire to join.

The hour of the luncheon is 1 P.M., the address, 135 E 55 St. Physicians wishing to attend or desiring any information may address the Physicians' Luncheon Club 135 E 55 St or may telephone Wicke-sham 2-7900

tests alone, none showed any positive readings on x-ray of the long bones and none showed any apparent physical stigmata. Six mothers were multiparae, two had received previous treatment but all had received treatment during the period of gestation, one at the first month, two at the second, one at the third and two at the fourth month.

In one case of this series the mother gave birth to two syphilitic children in succession, even after adequate treatment.

The first impression seems rather discouraging, but on second thought, it must be taken into consideration that these children presented only positive blood Wassermann tests without stigmata or positive x-ray findings, that they represent only about ten per cent of the number who were adequately treated antipartum. Besides the morphology and strains of the *Treponema pallida* are not one and the same in afflicted individuals.

Of the 1077 pregnancies that were inadequately treated before term, 253 resulted in miscarriages and 382 resulted in viable births negative at the time for congenital syphilis, but what the future holds for these latter children remains to be seen. Many of the mothers who received no treatment previously or during gestation, may give birth to a viable child, clinically free from the manifestations of syphilis. The probabilities are all in their favor of presenting some degree of stigmata later on, whether it be at the secondary dentition, puberty or early adolescence.

Review the number of cases in your experience that may be traced as evidences of congenital syphilis when the Wassermann may be negative or where the parents may be dead, but yet the unmistakable signs of a certain underlying deceptive factor being present, which possibly may be the solution of the problem

Let us consider the following as suggestive possibilities adenitis, scrotal tongue, Raynaud's disease, paroxysmal hemoglobinuria, undescended testicles, deafness, dwarfism, gigantism, rickets, hypothyroidism osteoperiostitis, dystrophies of the cranial bones, acromeglia, hyperostoses (frontal, occipital, and parietal) micro- and macrocephalism, facial

asymmetry, club-foot, hydroarthroses,
and osteoarthritis

The other 442 pregnancies represented children who were diagnosed as congenital syphilitics, having a positive Wassermann or presenting some congenital

TABLE I

Total number of pregnancies	Adequate treatment of mother previously or during her pregnancy		Inadequate treatment of mother previously or during her pregnancy		A. Miscarriages, stillbirths	No.	Per cent
	No	Per cent	No	Per cent			
1179 (336 women)	102	8 6%	1077	91 4%	B Viable births negative for congenital syphilis	90	83 1%
					C Viable births positive for congenital syphilis	7	6 6%
					A Miscarriages, stillbirths	253	23 5%
					B Viable births negative for congenital syphilis	382	37 8%
					C Viable births positive for congenital syphilis	442	39 8%
700 white pregnancies (192 women)	66	9 4%	634	90 6%	A Miscarriages, stillbirths	5	7 5%
					B Viable births negative for congenital syphilis	57	87 8%
					C Viable births positive for congenital syphilis	4	4 7%
					A Miscarriages, stillbirths	146	23%
					B Viable births negative for congenital syphilis	239	37 6%
					C Viable births positive for congenital syphilis	249	39 5%
470 colored pregnancies (144 women)	36	7 5%	443	92 5%	A Miscarriages, stillbirths	0	0%
					B Viable births negative for congenital syphilis	33	91 6%
					C Viable births positive for congenital syphilis	3	8 4%
					A Miscarriages, stillbirths	107	24 1%
					B Viable births negative for congenital syphilis	143	32 1%
					C Viable births positive for congenital syphilis	193	43 6%

any further manipulation, the wounds were closed. I fully expected a fatal outcome.

The next day the patient was still comatose. Lumbar puncture yielded uniformly bloody fluid under a pressure of 160 mm. Twenty-four hours later she appeared brighter, began to take nourishment and at that afternoon recognized visitors and began to speak. She improved steadily. By the end of two weeks she was out of bed and on July 7, five weeks after the operation she was discharged symptom free and with no abnormal neurological signs.

on July 12, 1935 complaining of violent headache.

For many years there was an intermittent purulent discharge from the right ear which was accompanied by gradual impairment in hearing. On several occasions she was treated for a "weak stomach" but otherwise she felt well and worked hard.

One week before admission she was awakened by a bursting sensation on the right side of the head. The headache was very severe and she vomited several times. The next day the headache subsided. For



Fig 1 A-P and P-A view showing dilatation and displacement of left lateral ventricle to the left. Pineal shadow and third ventricle also displaced to left. No air entered the right ventricle.

It is now sixteen months since she left the hospital and during this interval she has performed the household duties as usual, she has remained symptom free and repeated "check-ups" fail to show any abnormal findings.

Comment In retrospect I believe that this patient had an intraventricular hemorrhage sufficiently encapsulated to prevent any blood gravitating to the lumbar space. In all likelihood this collection of blood was close to the midline. In favor of this central location is the type of headache, the stiffness of the neck, and the absence of the lateralizing signs.

The prompt improvement following the evacuation of blood mixed with ventricular fluid can hardly be a coincident when we consider the precarious state of the patient just preceding operative intervention.

CASE 2 A J, a fifty-seven year old domestic was admitted to Mt. Sinai Hospital

several days she felt dizzy and was unsteady on her legs. On the morning of admission she was again seized with a violent spell of headache, and felt so dizzy she had to remain in bed. She was brought to the hospital for observation.

Except for the tendency of turning the head to the right and slight horizontal nystagmus to the right there were no abnormal neurological findings. Temperature was 99.8, pulse was seventy-eight, blood pressure was systolic 145—diastolic 100. Urine showed a faint trace of albumin and an occasional leukocyte. WBC numbered 12,000 with seventy per cent neutrophils and twenty-six per cent lymphocytes. Blood Wassermann was negative.

The headaches continued undiminished in severity and were relieved for only brief intervals by various sedatives. Four days after admission she suddenly developed a left hemiplegia, the neck became stiff, speech was thick, sensorium somewhat clouded,

CEREBRAL APOPLEXY

Two Recoveries Following Surgical Intervention

ABRAHAM KAPLAN, M D, *New York City*

From the Neurosurgical and Neurological Services of Mt Sinai Hospital

It has come within the experience of many physicians to see patients with no history or findings suggestive of hypertension, lues or renal disease, suddenly seized with a so-called "stroke." Some of these patients have survived such an episode and lived a good many years greatly handicapped by a residual paralysis with or without aphasic symptoms, others have failed to compensate for the initial vascular insult and have succumbed.

In the main the feeling has been that if the intracerebral hemorrhage is small the patient will most likely survive, if large there is nothing much that can be done about it. Surgical intervention in these patients has rarely been considered.

I wish to present two patients who came to operation because they were suspected of having some lesion other than an intracerebral vascular accident. Both were in a moribund state at the time of operation.

CASE 1 A. F. a sixty year old housewife was admitted to Mt. Sinai Hospital on May 28, 1935 in a stuporous condition.

Except for intermittent headaches for many years and some diminution in hearing for about five years there was nothing of any significance in the past history.

She was in fairly good health until eight days before entry when she was suddenly seized with a spell of frontal headache and began to vomit. In spite of this distress she continued to work about the house and on the following morning she felt as well as usual.

She was symptom free during the next week, but at 8 A.M. on the morning of admission she was again seized with headache which seemed to encircle the head from the bridge of the nose around to the occiput. This was accompanied by extreme nausea but there was no vomiting. Late that afternoon she could not be aroused. There followed periods of stupor and alertness, and during the lucid intervals she complained of pain in the back of the neck and of seeing double. Speech became very thick

and unintelligible. That evening she became irrational and violent and was brought to the hospital.

When the patient was first seen she was extremely restless and fought off any attempts at examination. Speech was incoherent. After a while she became drowsy. The lips were dry and cyanotic, no abnormal findings were detected in the heart or lungs, temperature was 101.6, pulse 120, blood pressure systolic 140—diastolic 80. Rhythmic twitchings of the toes and fingers were very noticeable. The neck was stiff and Kernig sign was present on both sides. Only a limited view of the fundi was possible because of bilateral cataracts. The disk margins were slightly indistinct. Both corneas were equally sensitive. Ocular movements were satisfactory in all directions. The patient reacted equally on both sides to painful stimulation and there was no evident paresis. All deep reflexes were sluggish. Babinski sign was doubtful on both sides.

Laboratory data The urine showed a faint trace of albumin. The blood Wassermann was negative. Blood sugar 170 mg per cent. Urea nitrogen ten. The spinal fluid was under pressure of 230 mm water, it was crystal clear, and had forty cells per cmm, all lymphocytes. Pandy test was positive, and only a trace of sugar was present.

The patient remained in a somewhat stuporous state and two days later one of the daughters offered additional information that on the day before admission the patient's head struck against a shelf.

Though the possibility of a subdural hematoma was remote, a bilateral trephine was performed as a last resort particularly because of the deepening coma. This was performed on June 1, over both postparietal regions. The exposed dura appeared normal in color and under moderate tension. The dura was opened on both sides but there was no evidence of any subdural hematoma. A ventricle needle was then inserted through the right hemisphere and at a depth of five cm, about fifteen c.c of dark blood mixed with ventricular fluid escaped. Feeling that little could be accomplished by

ized necrotic vessel wall containing recent thrombi. No tumor cells were seen anywhere in the large number of serial sections which were made.

Postoperative course The evening following the operation the patient was not as deeply comatose. The pupils were equal, she yawned a good deal and was able to swallow.

July 21 The patient appeared brighter, recognized friends and spoke a few words.

July 22 The left facial weakness was less marked.

July 23 Patient appeared much brighter, there were slight movements in the left arm and left leg. Still incontinent. No Babinski sign.

July 26 Patient was very alert, responsive, and jovial. Movements of the left side of the body improved. Sensation to pin-prick was surprisingly good on the left side as compared with the right.

August 1 Patient was allowed out of bed, mentally she was much clearer, and power on the left had improved.

August 2 She was no longer incontinent. Deep reflexes on the left were still depressed. No Babinski sign.

August 9 Astereognosis could not be demonstrated. Position and vibration sense were slightly impaired over the left hand.

August 11 Was able to take a few steps with practically no assistance.

August 1 Patient was allowed out of bed.

August 18 To gross tests a left homonymous hemianopsia was demonstrated.

August 21 Patient discharged. Very slight residual paresis was present. Blood pressure 112 systolic, seventy-five diastolic.

Since her discharge, 14 months ago, she has steadily improved. The paresis has completely disappeared. She is able to do light housekeeping, can take long walks and is not handicapped mentally. The only residual disability is a remaining left homonymous hemianopsia. (Fig 2)

Comment There can be little doubt that this patient had an intracerebral hemorrhage in the posterior part of the right internal capsule, which in its wake destroyed the greater part of the optic radiation from the right occipital lobe. Here again the clear spinal fluid as well as the clear fluid from the left ventricle is evidence that the hemorrhage was encapsulated. It is of interest also to note that intracerebral hemorrhage will produce ventricular displacement not unlike that of a cerebral neoplasm or abscess.

Discussion

Almost thirty years ago Spiller¹ pointed out that the duration of life may be many

hours after the onset of cerebral apoplexy. Instantaneous death is rare, even when the hemorrhage is very extensive or has broken into the ventricles.

In a recent study by Robinson² of encapsulated brain hemorrhages, he found that the survival interval in cases of intracerebral hemorrhages may vary from five hours to two months. The survival is shortest in patients having large hemorrhages extending into the pons or into the ventricles.

Recorded attempts at surgical treatment of an intracerebral hemorrhage are few indeed. In 1903 Cushing³ reported two cases of cerebral apoplexy who ultimately did not recover. However, he came to the conclusion that "the temporary amelioration of the severe symptoms is a sufficient justification for future attempts to afford surgical relief to certain carefully selected cases." Six years later Sargent and Russell⁴ contributed the report of a patient who had hypertension, a right hemiplegia, and was unconscious for ten days before operation. She slowly improved after the evacuation of the cerebral clot and nine months after the operation there was slight return of power, speech was limited to a few words, although she could satisfactorily understand printed words. Kron and Mintz⁵ report the evacuation of an intracerebellar hemorrhage seventeen days after the onset of symptoms. The clot was about the size of a bird's egg and was located 6.75 cm beneath the surface of the right cerebellum.

Peuch, Rappaport, and Brun⁶ report two recoveries following the removal of an intraventricular hemorrhage.

Bagley⁷ in a discussion of surgical considerations of cerebral hemorrhage reports three recoveries following intervention for nontraumatic intracerebral bleeding.

More recently Penfield⁸ reported in detail two similar recoveries after the evacuation of an intracerebral hemorrhage. In one patient the spinal fluid was diffusely blood tinged. Blood pressure was systolic 128, diastolic fifty-six. The second patient was known to have had hypertension for four years. The spinal fluid had a deep yellow tint and was under a water pressure of 290 mm. In the second patient ventriculograms

and sensation to pin-prick was diminished on the left side. The patient became drowsy. The spinal fluid was under normal pressure, clear, and colorless, and had only two leukocytes per cu mm. Wassermann and colloidal gold was negative. Total protein was seventy-seven mg per cent.

Steadily she became more drowsy and soon she could hardly be aroused. The head was turned to the right, neck was stiff but there was no Kernig. The right pupil was larger than the left, both however responded to light. The fundi showed some sclerosis of the retinal vessels but otherwise were normal. There was a slight left facial weakness. Accompanying the left hemiplegia was a slight left hemihypesthesia. The deep reflexes were more active on the left. Abdominal reflexes on the left could not be elicited. There was no Babinski sign.

The sudden onset of the left hemiplegia associated with coma in the presence of an old chronic ear on the right made the consideration of a cerebral abscess very formidable. However, a cerebral neoplasm or thrombosis was also seriously considered. For accurate localization, ventriculograms seemed advisable.

Operation (July 19) A trephine was made over the left postparietal region, the

exposed dura appeared normal and pulsated freely. Only twenty c.c. of clear fluid was obtained from the body of the left ventricle and fifteen c.c. of air was replaced. X-ray film (Fig 1) taken shortly after showed no air in the right ventricle, but the left ventricle was well-outlined, moderately dilated, and displaced to the left. The pineal shadow was also displaced to the left. The patient was returned from the X-ray department to the operating room and under local novocain anesthesia a trephine was made over the posterior portion of the right temporal lobe. A needle inserted towards the temporal lobe yielded clear ventricular fluid, indicating that the lesion was elsewhere. The needle was then directed toward the posterior portion of the internal capsule and a little old dark blood appeared at the orifice of the needle. Aspiration yielded fifty to sixty c.c. of old dark blood mixed with degenerated brain tissue.

Pathological report (Dr J. Globus) Microscopic studies of the material removed showed small islands of brain tissue irregularly distributed in large masses of what appeared to be recently extravasated blood. These islands showed normal structure in some parts and marked disorganization in other parts. In addition to numerous collections of pigment there were also circular areas of hyalinization resembling disorgan-

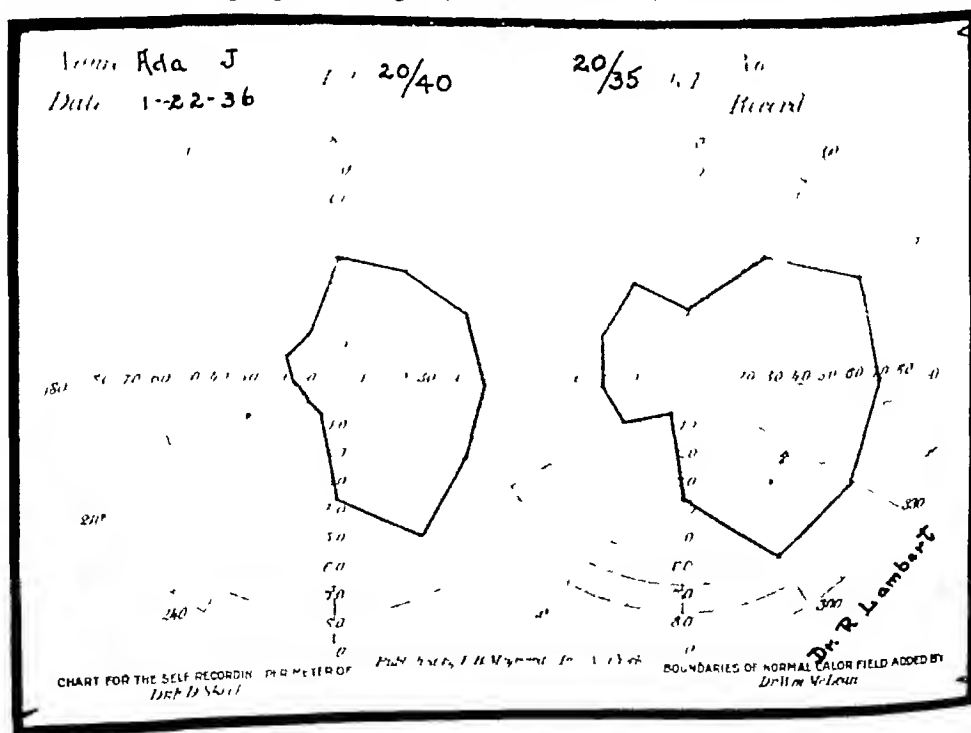


Fig 2 Residual left homonymous hemianopsia

GANGRENOUS CYSTITIS

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Gangrenous cystitis is an entity that must be considered by both the specialist and the general practitioner in every case of severe urosepsis. With a mortality rate of sixty per cent, the obstetrician with complications of labor, the neurologist with central nervous disease lesions, the internist with general infections, the radiologist with x-ray and radium treatment, the surgeon, the gynecologist, and urologist with surgical procedures and traumatism—all have to face its protean etiology.

Stirling and Hopkins¹ in their comprehensive report of 207 cases, roughly divide the etiological factors into five groups, according to the frequency

1 Traumatic

- (a) Pressure on bladder from without as malposition of pregnant uterus, tumors of the uterus, tumors of the ovary, prolonged labor
- (b) Distension of the bladder, internal or external as stricture, prostatic hypertrophy, calculi
- (c) Circulatory obstruction, ligation of adjacent arteries, venous obstruction from pressure, emboli, thrombosis, carcinoma
- (d) Operative procedure on the bladder, prostatic resection, incisional prostatectomy

2 Infections

Local, as chronic cystitis
General, as typhoid, diphtheria, measles, meningitis, puerperal fever

3 Nerve lesions of the cord.

4 Chemical, Substances injected into the bladder to induce abortion

5 Thermal, X-ray and radium treatments

Retention of urine and presence of infection are the most frequent predisposing causes, retention occurred in more than one-half of the cases. In an early report by Carson,² seventy-six cases out of 167 had retention. The complications of labor played the important etiological role in earlier reports, but recently the occurrence of the condition has been pre-

dominantly in the male. The improvement of the management of labor and aseptic technique has prevented this complication. Duchanoff³ reports cases of attempted abortion by injecting caustic solution into the bladder, resulting in gangrene.

Pathology

The pathology varies according to the extent, severity, and duration of the involvement. There may be isolated black areas or the entire bladder may resemble the surface of a blackberry, with marked congestion of the trigone. In other cases, all that can be seen is a generalized, grayish, mucoid, shaggy slough, with or without the appearance of new and old blood clots. The bladder wall may be markedly thickened with infiltration of red and white cells, the red cells predominating in hemorrhagic form. There is edema of the muscle fibers and thrombosis of the blood vessels. On the other hand, the musculature may be thin and stretched out. The serosa often presents dilated vessels and hemorrhages. The mucous membrane may be replaced by the dim shadow of its cells, fibrin, old and new red cells, polymorphonuclear, and lymphocytes.

Later the membrane loses its histological structure and may slough away in pieces or form an entire cast of the bladder. It is a dirty, gray or grayish-green, foul-smelling, shaggy membrane, often gritty, due to the deposits of urinary salts. After separation of the slough, the bladder presents its inflamed musculature if the involvement were deep. This transmits a grating sensation as the cystoscope is moved. Regeneration and fibrosis takes place later with contracture and reduction of capacity, usually followed by regurgitation and pyelonephritis. In most instances, the ureteral orifices are patent. At times, with a less extensive process, the bladder wall is pale

were performed which clearly localized the lesion to the left occipital region

Of course one must first make every attempt to establish the diagnosis of an intracerebral hemorrhage. The differential diagnosis between cerebral hemorrhage and cerebral thrombosis is not always easy. Aring and Merritt⁹ analyzed 245 cases of cerebrovascular lesions proved at autopsy from the records of Boston City Hospital. Of these 116 died because of cerebral hemorrhage, 106 died of cerebral thrombosis, and only twenty-three of cerebral embolism. They emphasize the following differential points:

1 Cerebral hemorrhage occurs more frequently in the decade from forty to fifty.

2 Sudden severe headache or vomiting at the onset is strongly in favor of a diagnosis of cerebral hemorrhage.

3 Convulsions were twice as frequent in cerebral hemorrhage as compared with cerebral thrombosis.

4 Coma at the time of admission to the hospital is about twice as common in patients with cerebral hemorrhage.

5 The progression of signs after the onset was more frequent in cases of cerebral hemorrhage.

6 Evidence of peripheral and retinal arteriosclerosis was frequently farther advanced in cases of cerebral thrombosis.

7 Stiffness of the neck was found in fifty-five per cent of cases in cerebral hemorrhage and only in seven per cent of the cases of cerebral thrombosis.

8 In thirty-eight per cent of cases of

cerebral hemorrhage the cerebrospinal fluid pressure was greater than 300 mm. In cases of cerebral thrombosis a pressure greater than 300 mm was rare.

In cases of doubt, therefore, where intervention is being seriously considered a preliminary ventriculogram for precise localization of the lesion is most advisable. Although the criteria for surgical intervention in patients with intracerebral hemorrhage cannot as yet be stated too definitely, nevertheless, from the reports already mentioned it would seem that operation is justifiable in young or middle aged individuals who manage to survive twenty-four or forty-eight hours after the initial vascular accident and whose symptoms are progressing. Those who are afflicted with advanced hypertension or renal disease or who show massive hemorrhage as revealed in the spinal fluid are best cared for medically.

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References

- 1 Spiller, W. J. *A.M.A.* 51 2101, 1908
- 2 Robinson, G. W. *Arch. Neurol. & Psychiat.* 27 1441, 1932
- 3 Cushing, Harvey. *Amer. J. M. Sc.* 125 1017, 1903
- 4 Russell, A. E. and Sargent, Percy. *Proc. Roy. Soc. Med.* 2 44, 1909
- 5 Kron and Mintz. W. G. *Deutsche Med. Wchschr.* 53 1054, 1927
- 6 Peuch, P., Rappoport, and Brun, M. *Rev. Neurol.* 63 923, 1935
- 7 Bagley, Charles, Jr. *Arch. Neurol. & Psychiat.* 27 1133, 1932
- 8 Penfield, W. *Canad. M. A. J.* 28 369, 1933
- 9 Aring, C. D. and Merritt, H. H. *Arch. Intern. Med.* 56 435, 1935

MEDICAL RADIO BROADCASTS

The following broadcasts have been scheduled by the New York Tuberculosis and Health Association under the auspices of the Medical Information Bureau of the New York Academy of Medicine, through Station WOR and network of Mutual Broadcasting system, and Station WNYC.

Tuesday, May 18, 1 00 P.M. Station WOR
—*Speaker* Dr. Katherine F. Dodge, Assistant Visiting Physician, Children's Medical Service, Bellevue Hospital. *Subject* "Rheumatism as a Cause of Heart Disease"

Tuesday, May 18, 4 00 P.M. Station WNYC
—*Speaker* Dr. William Bayard Long, Chairman, Social Hygiene Committee, New York Tuberculosis and Health Association. *Subject* "Congenital Syphilis"

Friday, May 21, 11 00 A.M. Station WNYC
—*Speaker* Dr. Harry L. Goldwag, President of the State Board of Podiatry Examiners. *Subject* "Clothing the Child's Foot"

Tuesday, May 25, 1 00 P.M. Station WOR—*Speaker* Mrs. Nathan Straus, Vice President, New York Section, National Council of Jewish Women, also member of Board of Directors of the Women's City Club. *Subject* "Keeping the Alien in Health"

Tuesday, May 25, 4 00 P.M. Station WNYC
—*Speaker* Dr. Maurice A. Bigelow, Professor of Biology Teachers College, Columbia University. *Subject* "Adolescence."

Friday, May 28, 11 00 A.M. Station WNYC
—*Speaker* Miss Dorothea C. Arnold, Personal Information Secretary, New York Tuberculosis and Health Association. *Subject* "Calling Caledonia 5-2240"

May 15, 1937]

of necrotic tissue were passed. Catheters drained well and the urine cleared of its bloody content.

Repeated observations of the spinal fluid showed negative findings. Antimeningococcic serum was administered, also transfusions, clyses, and other supportive treatment. The spinal fluid count ranged between 180 and 300 cells, most of which were lymphocytes. Despite treatment, the patient grew steadily worse. The temperature and pulse mounted and six days after admission the patient died.

Autopsy revealed fractures of the skull in the right anterior and middle fossae, localized meningitis and gangrenous cystitis. The bladder wall was markedly thickened. The mucosa was black, granular, and necrotic. On microscopic examination, the mucosa was seen to be replaced by a dim shadow of mucous membrane, fibrin, old and new red blood cells, polymorphonuclear leukocytes, lymphocytes, and plasma cells. The muscle layer was very thin. The blood vessels of the serosa were dilated and hemorrhages were seen. The entire bladder wall was infiltrated with white and red blood cells. The kidneys and ureters appeared normal.

Discussion. The above case emphasizes the fulminating progression of gangrenous cystitis. The patient was severely toxic and in two days without any prodromal signs or symptoms, developed the severe cystitis, involving an apparently normal urinary tract. The gangrenous membrane was seen before the sloughing occurred. The diagnosis was made upon the basis of a severe toxemia, central nervous system disease, retention, and hematuria. It is interesting to note that the trigone and ureteral orifices were not involved and the kidneys were free of pathology due to the patient's early exitus. Drainage of the bladder improved the condition and the hematuria decreased. Marion, commenting upon a case report of Levy-Dreyfuss in the *Journal of Urology*, emphasizes that in females the bladder can be curetted through the urethra, a point not mentioned in American literature.

CASE 2 M. D., male, white, fifty-one years of age, entered the hospital with a Pott's fracture. The patient gave a history of having suffered with cardiac symptoms for five years, and urologic symptoms of frequency, nocturia, and some difficulty starting the stream for the past year.

Physical examination revealed a patient who appeared older than his age, head and neck negative, the heart enlarged, the aortic second sound accentuated, a soft systolic murmur at the apex, rales at the

base of the right lung, a distended bladder. No other masses palpated. The sphincteric tone was good. The prostate gland was moderately enlarged, globular, and somewhat firm. The systolic blood pressure was 154, the diastolic ninety.

Urimalysis. The specific gravity was 1.018, the reaction alkaline, there was a trace of albumin and an occasional white blood cell.

The fracture was reduced without anesthesia and during the next few days his temperature ranged between 98.6 and 101° F. An electrocardiogram confirmed the diagnosis of arteriosclerotic heart disease with auricular fibrillation, for which he received treatment. He was voiding frequently but nevertheless the bladder was distended. Catheterization on one occasion yielded twenty-eight ounces of clear urine.

Six days after admission the patient became stuporous and cyanotic, the pulse became weak, irregular, and rapid, and the temperature rose to 104° F. The lungs were clear and resonant and there were no costovertebral signs. He was transferred to the Urologic Service, where the bladder was decompressed and treatment for uremia and the failing heart instituted. The erythrocyte count was 3,340,000, hemoglobin was sixty per cent, leukocyte count was 27,300, of which ninety-four per cent were polymorphonuclear cells. Vasectomy was not done, because of the critical condition of the patient. The urine revealed a specific gravity of 1.025, alkaline reaction, a heavy trace of albumin, forty-five to fifty white blood cells per field, in clumps, and fifteen to twenty red blood cells. The blood urea was fifty-two mg and creatinin 12 mg. The blood pressure dropped to eighty systolic and fifty diastolic.

The patient progressively grew worse in spite of supportive and stimulant treatment. The gross urine was blood-tinged, with numerous bits of grayish exudate. Three days later he died.

Autopsy. This revealed a typical gangrenous cystitis with necrotic, dirty grayish exudate, pyelonephritis with bilateral hydronephrosis, parenchymatous degeneration of the liver, acute splenitis, coronary sclerosis, and terminal congestion of the lungs.

Discussion. Gangrenous cystitis was not suspected in this case. The patient suffered from an obstructing prostate and paradoxical incontinence and consequent blood retention of the urea. The failing heart added to the burden of the kidneys. The hydronephrosis were evident proof of long-standing retention and not secondary to the gangrenous cystitis, since this condition

after exfoliation and the proliferation of tissue cannot be distinguished from normal mucosa

The offending organism is usually the colon bacillus, although streptococcus pyogenes, viridans, staphylococcus pyogenes, bacillus, typhosus, and Proteus may be present

Symptomatology

The patient appears very ill, pain varies in accordance to the extent and severity of the lesion. There is paradoxical retention and incontinence, and at times difficulty in starting urination. The urine is foul, ammoniacal, and contains pus and debris of bladder mucosa. Hematuria may or may not be present, but when present frequently is severe. When introduced, the catheter may plug with blood or debris, and for their dislodgment it may be necessary to distend the bladder first. There is usually a low grade temperature. Extension to the kidney produces a general constitutional reaction. If the peritoneum is involved, the usual signs of peritonitis are present.

In diagnosis, carcinoma and pseudomembranous cystitis should be ruled out. In pseudomembranous cystitis, the membrane is superficial, thin, frees easily from the mucous membrane and is exudative. The patient presents only symptoms of a cystitis.

Treatment

Early and adequate drainage is imperative. In males, a suprapubic cystostomy should be performed with removal of the necrotic tissue.

In females, the slough may be passed through the short caliber distensible urethra, or the bladder may be curetted through the urethra as advised by Marion. Adequate supportive measures should be instituted as transfusions, infusions, clysis, and urinary antiseptics. Frequent bladder lavages with Dakin's solution is an important postoperative measure. In border-line cases, an indwelling catheter, with bladder lavages of Dakin's or phosphoric acid, 0.5 to one per cent is often efficient, but close attention must be given to plugging of the catheter. Prophylactic treatment depends upon avoidance of prolonged re-

tention and pressure against the bladder wall.

The following is a report of five cases of gangrenous cystitis: three discovered at autopsy, one diagnosed before death and confirmed by autopsy, and one diagnosed, operated, and confirmed by autopsy.

CASE 1 I S, female, white, twenty-five years of age, was admitted to the medical service complaining of vomiting, aches and pains in back, neck, and extremities which began eight days prior and grew progressively worse. Seven weeks previously she was in an automobile accident, in which she received a shaking-up, lacerations of skin, and subsequently suffered from severe headaches. Her past history and family history were negative. There was no history of urinary disturbance.

Physical examination on admission presented an acutely ill patient. Her temperature was 102° F, pulse 110, blood pressure 134/80. She was irrational, her neck was rigid, bilateral slight Kernig's sign, there was ophthalmoplegia and bilateral choked disks. The leukocyte count was 12,700, of which eighty-two per cent were polymorphonuclear and eighteen per cent lymphocytes. Lumbar puncture disclosed a pressure of the spinal fluid of fifty-two mm. The fluid was cloudy and contained 280 cells per cmm, of which ninety-five per cent were poly and five per cent lymphocytes, globulin was absent, there was a trace of sugar. The urine, obtained by catheterization, showed a faint trace of albumin and a few white blood cells.

X-ray examinations of the skull and sinuses disclosed no pathology. The Wassermann was negative.

The patient required catheterization the next day, at which time twenty-four ounces of dark, concentrated, alkaline urine was obtained which contained numerous red blood cells. Because of the hematuria, urologic consultation was requested and the patient was cystoscoped two days after admission. The bladder was black throughout, except for the trigone, which was comparatively free from involvement. The mucosa was covered by a membrane resembling the surface of a blackberry. The ureteral orifices were patent, reddened, normal in size and location. No 6 catheters passed easily to each renal pelvis, and cloudy urine dripped slowly. Catheters were left *in situ*, and hourly lavages instituted. Culture of the bladder urine showed *Bacillus coli*.

The bladder condition improved in the next few days. No membrane or pieces

headache of one week's duration. He had had arterial hypertension for three years. For nine months he had complained of spots before his eyes and blurring of vision. For some time he had suffered from nocturia and difficulty in starting urination. Physical examination revealed a fifty-two-year-old

Wassermann and Kahn tests were negative. Blood chemistry revealed urea seventeen mgs, sugar ninety mgs. Urinalysis color amber, specific gravity 1.018, no albumin present, no sugar, microscopically negative. Electrocardiogram showed a sinus tachycardia. A phlebotomy was performed.



Fig 1 Bladder opened. Above, Lining shows hemorrhagic, gangrenous cystitis. Below, Prostate (Case 4)

white male, plethoric and orthopneic. The head and neck were normal, chest was emphysematous with rales throughout. The heart was enlarged downward and to the left. The pulse rate was regular, the cardiac sounds were of poor quality, no murmurs were heard. The liver was palpated three finger-breadths below the costal margin. No ankle edema was present. Reflexes were active. Blood pressure, 200 systolic, 120 diastolic. The temperature was 99° F.

and 340 cc of blood withdrawn. The pressure at this time was 165 systolic, 115 diastolic. The patient improved for two days, then suddenly developed signs of congestive heart failure. His breath became uremic in odor and the next day he was comatose. His temperature ranged from 99 to 104° F. During this time catheterization was required. Urinalysis revealed reaction alkaline, specific gravity, 1.020, a few white blood cells and a few granular casts. The erythrocyte count was

arises only after exfoliation of the membrane and contracture of the bladder followed by regurgitation. The pyelonephritis was probably secondary to the catheterization of the bladder and was not secondary to the gangrenous cystitis which is the general rule. The resistance of the patient being at its lowest point, the predisposing factor to this bladder condition was the chronic obstruction at the base and neck of the bladder caused by the chronic retention of urine as Haultain believes. This was another fulminating type of case.

CASE 3 W. A., an obese colored male, sixty-four years of age, was admitted to the Urological Service complaining of frequency (diurnal 5 to 6 times, nocturnal 2 to 3 times) for the past two years. A week previously after a long automobile ride he was unable to urinate and had to be catheterized. Since then frequency and nocturia had increased. The past history was negative.

Physical examination revealed negative findings, except the heart, which was slightly enlarged, with a loud, blowing, systolic murmur heard at the apex. Prostatic palpation showed the gland to be normal in consistency and smooth, the left lateral lobe somewhat enlarged, and the right to be small. The sphincteric tone was normal. The specific gravity of the urine was 1.015, reaction alkaline, a faint trace of albumin, one to two red blood cells and an occasional white blood cell per field. Wassermann reaction was negative. Erythrocyte count was 4,300,000, leukocyte count 11,000, hemoglobin sixty per cent. The systolic blood pressure was 180, the diastolic ninety. Blood chemistry revealed urea twenty-three mgs., creatinine one mg., sugar ninety mg.

A week after admission, during which time he was vasectomized and decompressed, he developed a "picket fence" temperature of 105° and began to hiccough. Physical examination gave no signs of extending pathology and blood culture was negative. Blood chemistry was reported urea nineteen mg., creatinine one mg., carbon dioxide combining power, normal. Urinalysis was negative. The Widal and undulant fever tests were negative. Ten c.c. of a one per cent solution of mercurochrome was injected intravenously. Repeated blood culture revealed a positive *Bacillus coli* blood infection and he was immediately transfused. The intravenous mercurochrome was repeated. His temperature dropped and he improved promptly. Ten days later his urea was twenty and the phenolsulphonephthalein excretion was fifty-eight per cent, with general condition good. He was cysto-

scoped and the following findings noted: marked commissural hypertrophy with some lateral lobe intrusion, immediately within and inferior to the right margin of the sphincter there presented a papillomatous growth about the size of a marble. Two days later, following another transfusion, a one-stage prostatectomy was performed. The "papillomatous" growth proved to be a protrusion of prostatic tissue, due to traumatism in passing the cystoscope. The patient progressed satisfactorily except for hiccoughs. On the fifth day his temperature rose to 105°. Since the catheter plugged, it was removed and he was put on suction. Intravenous mercurochrome was administered and his temperature dropped to normal the next day. Blood urea was 29 mg., creatinine 11 mg.

Three days afterward, the patient was taken off suction and an indwelling catheter anchored. His condition improved, the bladder drainage was clear for the next six days. The following two weeks the patient became gradually weaker. The temperature ranged between 101° and 104° F., he had numerous chills, at times he was disoriented and stuporous. The blood urea increased to fifty-nine mg., the creatinine to 18 mg. Another blood transfusion and two more intravenous injections of mercurochrome were given. Medical examination revealed nothing. The blood culture was again positive. The urine contained ten to fifteen white blood cells and bits of necrotic tissue. The patient died in a coma.

Autopsy Localized pelvic abscess along bladder sinus tract, gangrenous cystitis with bilateral pyelonephritis, mercuric ulcers of the cecum and rectum, infarcts of the spleen and fibrous pleurisy on right side, acute splenitis, parenchymatous degeneration of the liver and heart, passive congestion of the lungs, thrombosis of left hypergastric vein.

Discussion The etiological factors in the above case were the septicemia and the thrombosis of the left hypogastric vein. There were relatively few pus cells in the urine sediment, whereas the usual case presents a large number, together with debris of the gangrenous bladder, which is diagnostic. As in the other two cases, the urine was alkaline but was not grossly hematuric. It is interesting to note that the pathologist reported mercuric ulcers of the cecum and rectum (although the patient had received only five intravenous injections of ten c.c. each of one per cent mercurochrome) and there were no other signs or symptoms of heavy metal poisoning.

CASE 4 A. S., was admitted to the medical service complaining of dyspnea and

copically, loaded with red blood cells Wassermann and Kahn tests were four-plus Blood urea was twenty-five mgs, creatinin, one mg Culture of the urine was positive for *Bacillus coli*

He was transferred to the Urologic service and the bladder gradually decompressed His temperature ranged from 100 to 101° F He improved under the treatment and the lungs cleared up After a few days the catheter began to plug and the patient

gritty, membrane which was removed en masse (Fig 4) The bladder was red with areas of gray slough His general condition was so poor that further toilet was abandoned and a tube and drains placed

After a transfusion of 500 c.c and supportive treatment, he improved and in three weeks was ambulant in the ward

The pathologist reported that the removed cast consisted of degenerative amorphous

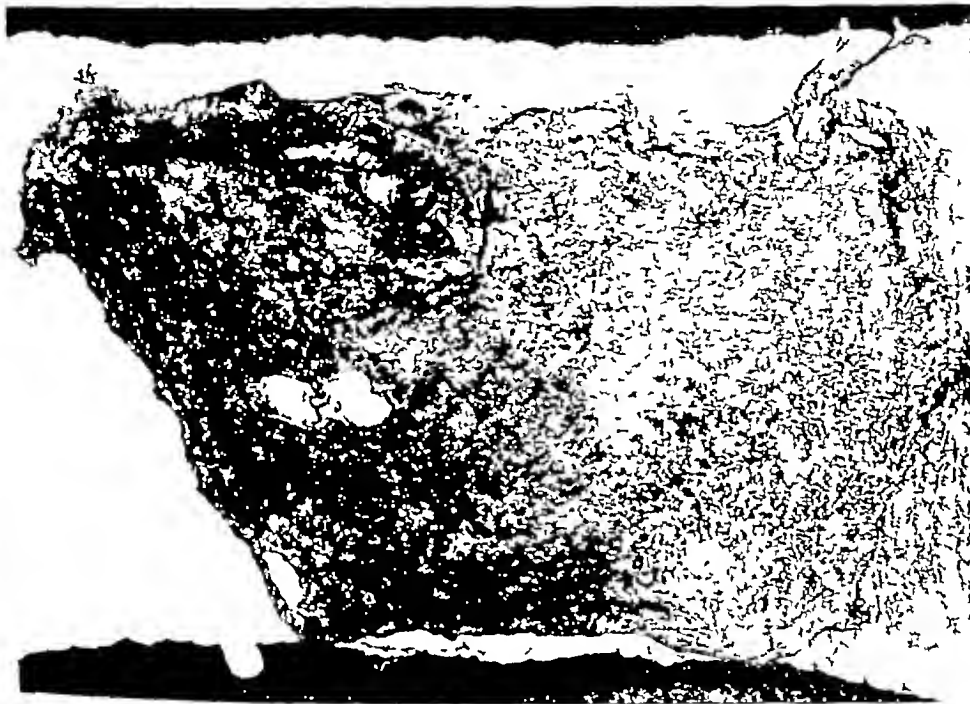


Fig 4 Gangrenous membrane Entire cast of bladder removed at operation. (Case 5)

was cystoscoped. The bladder was emptied with a McCarthy evacuator and a large number of old and new clots were removed, together with pieces of tissue. A generalized grayish, shaggy membrane was seen with a few small areas of reddened tissue, from which specimens for biopsy were taken. No landmarks could be discerned. The bladder neck and the posterior urethra, except for hyperemia, were normal. As the cystoscope was moved, a grating sensation was obtained. Biopsy of these tissue shreds revealed inflammatory and degenerated amorphous material without evidence of malignancy

After transfusion of 500 c.c. of whole blood, suprapubic cystotomy was performed under infiltration anesthesia, eighteen days after admission. The bladder was unusually thin and lined with a greenish-gray, necrotic,

tissue in which no histological structures could be made out. Diagnosis: Necrosis of bladder wall.

Eight weeks later he developed a palpable mass in the right costorenal angle, with crepitation. Cystoscopy was refused, but after intravenous urography, flat x-ray plate showed a large dense mass on the right side of the abdomen. No evidence of any opaque material in the right kidney was found.

Right nephrectomy was performed and immediately beneath the thin muscles and skin, a large pyonephrotic kidney was encountered. During its removal, it ruptured and copious greenish-yellow pus escaped into the wound.

Microscopic examination showed this pus to contain *Staphylococcus albus* and an unidentifiable gram negative bacillus. Cul-



Fig 2. Free margin *above* showing gangrenous exudate, *Below* Edematous muscle fibers (Case 4)

4,900,000, the hemoglobin ninety per cent, the white blood count 8,300

The patient died and an autopsy revealed nephrosclerosis, infarcts of lung, spleen and heart, gangrenous cystitis, general arteriosclerosis, cardiac hypertrophy with coronary sclerosis, and passive congestion of the liver, lungs, and spleen

The vessels of the bladder wall showed endarteritis and thrombosis. The pathologic diagnosis was gangrenous cystitis. The passive congestion may have added to the burden (Fig 1-3)

CASE 5 G Z, a forty-year-old white, emaciated and dehydrated male, appeared acutely ill. The patient signed out of hospital the previous morning, with a diagnosis of right lower lobe pneumonia. He grew worse and returned to the hospital. The only history obtainable was that he had been catheterized by his wife because

of retention. Incidentally, on the same day of admission the wife was committed to the psychopathic ward.

Physical examination presented a moribund individual. His pupils were unequal and reacted sluggishly, teeth were poor, gums, tongue, and throat coated and dry, the heart presented no pathology. In the lower lobe of the right lung there were numerous crepitant rales and diminished breathings. Except for the distended bladder and bilateral costovertebral tenderness, the abdomen was negative. Ankle pitting easily on pressure. The reflexes were diminished. Rectal examination revealed good sphincteric tone. The lateral lobes of the prostate were somewhat enlarged, irregular in shape, soft, the median sulcus shallow.

Blood examination hemoglobin sixty per cent, erythrocyte count 3,700,000, leukocyte count 18,400, with eighty-nine per cent polymorphonuclear cells and eleven per cent lymphocytes.

Urinalysis. The urine was dark brown in color, specific gravity was 1.020, reaction alkaline, albumin four-plus, micro-



Fig 3 High power Thrombosis of vessels surrounded by polynuclear, hemorrhagic exudate. (Case 4)

PREMATURITY AS A PUBLIC HEALTH PROBLEM

MORRIS GLEICH, M D, *Bronx*

A five year study was made of the premature infant situation in three city hospitals. There was also included, a general health survey of the East and Central Harlem Health Districts*. It soon became apparent from this study, that the morbidity and mortality of these premature infants ran hand-in-hand with the general health status of the community. We were impressed by the fact that a public health consciousness must be evoked and broader measures instituted, to cope with this situation. No longer can we treat premature infants as single entities. We must attack the entire premature infant problem enmasse.

990 premature infants were born in three municipal hospitals (Table I) in five years, an incidence of 4.5 per cent. Over this five year period, the incidence for prematurity at Harlem Hospital was 8.24 per cent, Fordham 3.24 per cent, Greenpoint 2.54 per cent. In the last two years the incidence for prematurity at Harlem Hospital has been ten per cent.

The high incidence of prematurity at Harlem Hospital is directly dependent

* These health districts are a few of a number being established in New York City. I am indebted to Dr. C. Martin, Records Division, Dept. of Hospitals and Mrs. E. Fagin, Records Dept., Harlem Hospital.

upon the high adult morbidity and mortality (Table III). The thirteen per cent incidence for leucic pregnant women bears this out.

Of the 990 premature infants born in these three city hospitals in five years, 179 died after having lived forty-eight hours, a mortality of eighteen per cent (Table II). Of these 179 infants, sixty-eight per cent died at Harlem Hospital, ten per cent died at Fordham, and twenty per cent at Greenpoint Hospital.

Premature infants which have lived forty-eight hours can, in the majority of instances, be saved. To do this will require team work on the part of the hospital and Board of Health.

Table III gives one a splendid idea of the difference in adult morbidity and mortality in various health districts.

The morbidity and mortality of adults, in any community determines the health of its children. With a general mortality rate of 20.65 and 14.12 for the Central and East Harlem Districts, respectively (New York City average 10.23), with the tuberculosis mortality rate per 1,000 population 458 and 301 respectively for these same districts, (New York City average 136) with the maternal mortality rate per 1,000 live births 10.9 and 8.4 respectively for these districts, (New

TABLE I—INCIDENCE OF PREMATURITY

Hospital	Total prem inf	Total newly born	% incid premat	
Harlem	76	1344	5.6	1931
Fordham	64	1047	6.0	
Greenpoint	26	1059	2.5	
Harlem	110	1417	7.8	1932
Fordham	34	1558	2.1	
Greenpoint	34	1524	2.1	
Harlem	109	1398	7.8	1933
Fordham	48	1759	2.7	
Greenpoint	51	1816	2.7	
Harlem	138	1336	10	1934
Fordham	39	1641	2.4	
Greenpoint	32	1631	2.4	
Harlem	131	1312	10	1935
Fordham	56	1638	3.4	
Greenpoint	42	1409	3.0	
Total	990	21889	4.5	

TABLE II—PREMATURE INFANT MORTALITY AFTER 48 HOURS

Hospital	Total prem inf	Prem inf dts after 48 hrs	% mort after 48 hrs
Harlem	76	19	25
Fordham	64	5	7.8
Greenpoint	26	0	
Harlem	110	23	20.9
Fordham	34	5	14.0
Greenpoint	34	2	5.8
Harlem	109	19	17.9
Fordham	48	5	10.4
Greenpoint	51	9	17.5
Harlem	138	41	30
Fordham	39	4	10
Greenpoint	32	10	31
Harlem	131	21	16
Fordham	56	0	
Greenpoint	42	16	38
Total	990	179	18

tures and animal inoculations of this pus were inconclusive. Section of the removed kidney showed diffuse suppuration involving the entire kidney, with no areas of normal tissue.

The patient died twenty-six days later. On autopsy, vast pathology was found, summarized as postoperative suprapubic cystotomy and right nephrectomy, bilateral apical tuberculosis and pleuritis, right bronchopneumonia and pleural effusion, luetic aortitis, moderate atherosclerosis, localized peritonitis with abscess formation, cholecystitis and liver abscess, multiple abscesses and pyonephrosis, left, gangrenous cystitis, prostatic and perirectal abscess.

Discussion. The infection was introduced during the frequent catheterizations to relieve the retention caused by central syphilis. The toxemia of the pneumonia was sufficient to break down such resistance as he may have acquired in the first infection.

Conclusions

- 1 All departments of medicine and surgery must heed the etiologic factors of gangrenous cystitis.
- 2 Retained infected urine is the most prevalent cause of the disease.
- 3 Its early recognition and free bladder drainage affords the only hope of cure.
- 4 Recoveries from the disease are rare.
- 5 The five autopsies are in concord with the findings of other observers disclosing widely disseminated bodily sepsis.

101 E 74 St
148 BARRETT ST

References

- 1 Stirling, W C and Hopkins, G A *J Urol*, 31 517, 1934
- 2 Carson, W J *Ibid*, 13 205 1925
- 3 Duchanoff, A. *Ztschr f Urol Chir* 29 516 1930

Collateral Reading

- Allen, A B Gangrenous Cystitis, *Urol & Cutan Rev* 60 629, 1936
- Antonopoulos Gangrène étendue de la paroi vesicale, *Gynec et Obstet*, 23 196, 1931
- Aschner, Paul Suprapubic prostate, *J Urol* 12 252, 1924
- Azerbajdzan *Med Z Russ*, 1935 (Not listed in Cum Index)
- Carson, W J Gangrene of bladder, *Am Surg*, 85 269, 1927
- Cowen, L B and Cowen, R. A fatality following electronic prostatic resection, report of a case with autopsy findings *Urol & Cutan Rev* 37 135 1933
- Delafield, F and Prudden, T M *A Text book of Pathology*, New York, Wood 10th ed., 1914
- Dunet et Creysseil Cystite gangreneuse totale, survenus à la suite d'une rétention aiguë, *Lyon méd* 137 64, 1926
- Eliason, E H. Gangrene of the bladder, *Ann Surg*, 76 546, 1925
- Fronstein, R. Über Cystitis gangraenosa, *Ztschr f Urol chir*, 19 181, 1926
- Giesicke, H. Cystitis dissecans gangraenescens *Ztschr f Urol* 25 561 1931
- Greenberg, G. Vesica duplex with gangrenous cystitis, *Urol & Cutan Rev* 40 175, 1936
- Gnyon Quoted by Patch 1928, loc. cit
- Haultain F W Necrosis of the bladder *Reports of the Laborator of the Royal College of Physicians at Edinburgh* 2 216 1890
- Heidler, H. Cystitis dissecans gangraenescens acutogenetica, *Ztschr f Geburtsh u Gynack* 92 1 1927
- Heubner I O L. *Die experimentelle Diphtherie* Leipzig, 1883 (Imperial Prize Essay)
- Higgen, H. Ueber Blasengangran nach Wertheimscher Karzinomoperation, *München med Wchnschr* 66 1292, 1919
- Judd, E S and Meeker, W R. Value of sacral nerve block anesthesia in surgery of prostate gland and bladder, *J Urol*, 11 395, 1924
- Karlin, W. Ein Fall von Cystitis gangraenosa im Wochenbett, *Zentralbl f Gynäk*, 50 1205, 1926
- Lempert, F. Cystitis gangraenosa dissecans, *Ibid* 50 1203, 1926
- Leguen, F. *Traité chirurgical d'urologie*, Paris, Alcan, 2nd ed. p 614 1921
- Lever, J C W. Case of sloughing of the bladder, *Guy's Hosp Rep*, 8 51, 1852
- Maggiolino D. Cistite gangrenosa dissecante, *Clin ostet*, 35 522, 1933
- O'Neil, R. F. Necrosis of the bladder with exfoliation *Surg Gynec & Obstet*, 10 503, 1910
- Ouglev, R. La gangrène vesicale, *J urol*, 32 120, 1931
- Patch, F S. Gangrenous cystitis, *J Urol*, 19 715 1928
- Peters, W. Über Cystitis gangraenosa, *Deutsche Ztschr f Chir* 187 138, 1924
- Randall A. Two unusual bladder lesions, *Trans Amer Asso Gento-Urin Surg*, 16 215 1923
- Stoeckle, W. Ueber Cystitis gangraenosa bei der Frau *Berlin klin Wchnschr* 42 20, 1905
- Willis *Diss de Urinis* 1650 (Not found in Acad Cat or Surgeon Gen)
- Wolferth C C and Miller, T G. Necrosis and gangrene of the Urinary bladder review of 153 cases *Am J Med Sc* 167 339 1924
- Zigler M. Membranous cystitis *Urol & Cutan Rev* 40 320 1936

A DANGEROUS WEED WE DON'T WANT

An upstate newspaper of wide influence, the *Troy Morning Record*, endorses Dr Terry M Townsend's able attack on compulsory health insurance, and remarks

The medical society could go farther and say that the citizenry of the country prefer their

doctors to be entirely free from the influences of bureaucrats and they, themselves, would like to be left alone and independent in solving their insurance problems. The paternalism of some of the European countries is a dangerous weed in the fertile field of our representative and independent government.

NUTRITIONAL REVIEWS II

Caloric Requirements

HERBERT POLLACK, M D and HENRY DOLGER, M D, *New York City*
From the Metabolic Clinic of Dr H Lande and the Medical Service of Dr G Baehr,
Mt Sinai Hospital

The first¹ paper of this series was devoted to the application of accurate experimental data to the problem of protein requirements. It is now necessary to consider the total caloric requirements in the light of similarly verified and investigated facts.

The popular misconception as to minimum protein requirements was shown to be based upon certain fallacious arguments. The average "standard" dietary requirement of 3000 or more calories per day can also be traced to inaccurate reasoning and the failure to apply fundamental physiological principles. It must be emphasized that the habitual voluntary consumption of food is unconsciously accepted as the food requirement. This has led to the practice of utilizing a statistical analysis of the eating habits of a class or group as a basis for their actual nutritional needs.

The title of E P Cathcart's paper,² "Some Difficulties in the Quantitative Assessment of Diets" indicates the gross inaccuracy of obtaining and applying data on food consumption. He points out many of the major errors involved in such a study, i.e., (1) overestimation of needs, (2) transfer of single individual estimates to a group, (3) inability to get accurate dietary histories and arriving at conclusions by assumption. He concluded that a more accurate estimate of actual food consumption could be made from a study of the waste rather than the marketing.

The best available data as to minimal caloric requirements for large groups is derived from the observations on the German people during the World War. Rubner³ observed that constant weight could be maintained when the individual consumed 1300 calories daily. Benedict, Miles, Roth, and Smith⁴ under the stimulus of the War made an intensive study of the actual caloric requirements of healthy men. These men before the experimental period were ingesting an

average of 3200 to 3600 calories a day. They were then given a diet of 1400 calories a day for a period of three weeks without changing their other living conditions. The average weight loss for all was twelve per cent below the original level. It was then found that these active athletic men could maintain this new weight on 1950 calories a day, or approximately one half of the amount they ingested ordinarily. Tests revealed that muscular efficiency was not impaired. They were able to perform set exercises with less expenditure of energy than at the beginning of the experiment. Lusk⁵ in reviewing these experiments, pointed out the fact that there is a biological adaptation to a lowered energy intake preventing the exhaustion of the body reserve. It can be demonstrated that caloric requirements may be calculated on a definite rational basis.

In times of economic stress the burden is to maintain a large population group in as adequate a state of nutrition as possible. It becomes necessary to know definitely what minimum standards can be accepted with safety. The development of accurate standards and technics for the measurement of the actual caloric expenditure has progressed rapidly. The present problem resolves itself into one of the clinical application of the data accumulated in the laboratories. The concept of a definite basal metabolism is universally accepted. To this basal figure, increments are added for activity, efficiency, specific dynamic action, environmental temperature changes, and state of nutrition. These must not be confused with the factors that control the basal caloric requirements, i.e. age, sex, weight, height, body temperature, occupation, race, and the previous diet.

An instance of the degree of one variability is the decreasing rate of metabolism from the age of sixteen to sixty, amounting to a total drop of over twenty-one per cent per square meter per hour.

TABLE III—COMPARATIVE RATES BETWEEN MORRISANIA HOSPITAL AND HARLEM HOSPITAL HEALTH CENTER DISTRICTS (1935)

Health center districts		Matern rate per 1,000 live births	Birth rate per 1,000 population	Infant mortal rate per 1,000 live births	T B Mort. rate per 100,000 popu- lation	Pul T B new cases rate per 100,000 population	Veneral dis. new cases—rate per 100,000 popul.	Other infect. dis- eases, rate per 100,000 popul.*	General mortal rate per 1,000 population
Morrisania Hospital	Principally from Morrisania Tremont	4 0 4 2	12 11	53 47	49 33	97 85	231 209	1260 982	8 05 7 45
Harlem Hospital	Principally from Central Harlem East Harlem	10 9 8 4	16 22	91 85	249 139	458 301	3809 1477	1127 2127	20 65 14 12
N Y C Average		6 43	14	53	62	136	727	987	10 23

* Includes Typhoid, Scarlet Pertussis Diphth Influxa and Pneumonia

York City average 6.43), with the venereal diseases, new cases, per 100,000 population 3,809 and 1,477 respectively (New York City average 7.27), small wonder that the infant mortality rate per 1,000 live births is ninety-one and eighty-five respectively for Central and East Harlem Districts (New York City average 5.3), and the incidence for prematurity in the last two years ten per cent.

The Harlem Health Center Districts would be a suitable place to start and develop a premature infant station. If successful, such units could be established in other districts. This station should contain:

1 A premature infant ward, to hold about thirty children, suitably equipped, and modelled after the "Cradle" at Evanston, Ill.

2 A special corps of trained nurses

3 A group of trained nurses to visit the homes upon the discharge of the premature infant from the hospital

4 A follow-up clinic for the premature infant and its mother

5 A breast milk service, for the purchase and care of breast milk

6 A pediatrician assigned to the ward

7 An intern regularly assigned to this service

8 An ambulance, equipped with incubator, oxygen tank, etc. to bring to the hospital those premature infants whose parents cannot afford a private doctor. This will require immediate notification by physician or midwife.

9 There shall be instructions for doctors and nurses in the care of premature infants.

The question of the care of premature infants is only one of the many problems in the Central and East Harlem Districts. To deal with it successfully requires an attack on all fronts, by private and public health officials. A local hospital cannot reach all the sick in any community, especially the ambulant sick. With a reduction in the morbidity and mortality of adults will come a decrease in the diseases of childhood. What can be done in one district can be repeated in others.

940 GRAND CONCOURSE

References

- 1 Bundesen, H. A., Dahms, O. A., Fishbein, W. I., and Harmon, G. E. *JAMA* 107: 270, 1936
- 2 Hess, Julius H. *Ibid.*, 107: 400, 1936
- 3 Idem. Infants Immature and Premature. *The Cyclopedia of Medicine* (Piersol), F. A. Davis Co., Phil., Pa.
- 4 Idem. *Premature and Congenitally Diseased Infants*, Lea and Febiger, Phil., Pa.
- 5 *Quarterly Bulletin* City of New York, Dept. of Health, Vol. 4, Aug. 1936, No. 3

The greatest potential factor in organized medicine lies in the individual member. What is accomplished will depend upon his active interest, and the extent to which he will make personal sacrifices for his profession, if need be.—*Milwaukee Medical Times*

Doctor (to Aberdeenian, whom he had been called urgently to see)—"What on earth have you been doing, Jock? Why, your tongue is absolutely black, man!"

Jock—"I droppit a bottle of whusky on the newly tarred road!"—*Nebraska State Medical Journal*

sented in the tables are high if one considers this factor

It is evident that the general population is unnecessarily luxurious in its dietary habits. This self-indulgence is reflected in the mortality tables of life insurance companies. Only sixty per cent of stout people reach the age of sixty as compared to ninety per cent of thin ones. At age seventy the figures are thirty and fifty per cent respectively. The age of eighty is reached by only ten per cent of the obese as compared to thirty per cent of the thin, a ratio of 1 to 3. Perhaps that is what Shakespeare meant in "Henry VIII" when he wrote

"Leave gormandizing, know the grave doth gape
For thee thrice wider than for other men"

McCay and Krowel⁶ presented some extremely interesting data on the relationship of longevity of life to excessive feeding. At the end of thirty-seven months (equivalent to 10 years in humans) only one out of thirty-six full fed rats survived, but twenty-one out of the seventy underfed rats were still living. They attributed this longevity solely to the slowness with which these animals reached maturity. Comparatively few patients seen by the physician are in a state of complete starvation. There is no question, however, that many of the acutely and chronically ill patients suffer from a more or less low grade state of

starvation. This has no reference to the so-called deficiency diseases which result from the lack of vitamins. These underweight patients are characterized by low basal metabolic rates. Thus decreased metabolic rate is an important diagnostic point in the quantitative estimation of clinical inanition.

Summary

The relationship of obesity to the degenerative diseases is all too obvious. The striking statement of Joslin's that eighty per cent of all diabetics are overweight, should initiate a more vigorous campaign to control the excessive caloric intake of the people. The old standards of the daily caloric requirement of the individual of 3000 to 5000 must be reduced in the interest of health, longevity, and economy. On the basis of the metabolic ideals, the new standard should be 1800 for women and 2200 for men. Adequate proteins, vitamins, and minerals can be incorporated in these new standard dietary requirements.

20 E. 76 St
111 E. 88 St

References

- 1 Pollack and Dolger. N. Y. S. Jour. of Med. 37: 633, 1937.
- 2 Cathcart. Nutrition Abstracts and Reviews 1: 6, 1931.
- 3 Rabner. Quoted by Benedict, Miles, Roth and Smith. Loc. cit.
- 4 Benedict, Miles, Roth and Smith. Carnegie Institute Publication No. 280, 1919.
- 5 Luck. The Science of Nutrition. Third Edition.
- 6 McCay and Krowel. Science 77: 41, 1933.

EUROPE'S STARVLINGS

Revelation that western Europe alone has thirty to forty million people living below a reasonable standard of nutrition presents an important health problem to the League of Nations. Efforts of the League to raise world standards of nutrition beyond the mere subsistence level were reported at the recent meeting of the American Dietetic Association. Dr. Mary Swartz Rose, of Teachers College, Columbia University, said that latest findings of the League's nutrition committee show that in no country of western Europe does the whole population come up to the desired standard.

In one boys' school near London the boys were considered to be well fed on an

institutional diet, said Doctor Rose. For four years, however, some of the boys were given supplementary food, with impressive results. The most striking improvement occurred in a group drinking a pint of milk a day. Boys six to ten years old drinking the milk gained on an average 698 pounds a year and grew 273 inches, whereas boys on the regular school diet gained 385 pounds and grew 185 inches.

The Milk in Schools Act, passed by the British Government in 1934, has followed from such demonstrations, and as a result Doctor Rose said, several million British school children buy milk daily at half the current price.

This is compensated for in part, in so far as the total caloric requirements go, by the increasing surface area with age. It should be borne in mind that the increasing surface area (gain in body weight) is in turn due to the maintenance of an isocaloric intake in the face of a gradually decreasing caloric requirement. The complexity of the interrelationship of these two factors alone illustrates the futility of generalization.

Since the concept of a definite basal metabolism is accepted, there is no reason to prevent the application of these principles to the estimation of the total caloric requirements of the individual. The actuarial statistics compiled by both the

Du Bois. The recently corrected values for calories per hour per square meter by Boothby can then be used for the age and sex factors. From this one derives the figure of 1675 calories. For light work an increment of thirty per cent is added, and the final figure of 2175 calories is obtained. This figure represents the average daily caloric requirement of that group of adults whose actual caloric requirements are greater than any other adult group.

On the same basis one can calculate the average caloric requirement of the general population from the height, weight, and age tables compiled by the Life Insurance Actuarial Societies. The

TABLE I

	Age	Height	Weight	Basal Calories	Required Calories (Basal — 30)
MALES	20	5'10"	152	1740	2275
	25	5'7½"	141	1675	2175
	30	5'10"	161	1750	2275
	40	5'10"	168	1680	2175
	50	5'10"	171	1650	2125
	20	5' 8"	144	1670	2160
	40	5' 8"	158	1600	2075
FEMALES	20	5'4"	125	1340	1750
	30	5'4"	131	1340	1750
	40	5'4"	138	1360	1775
	20	5'2"	119	1280	1675
	40	5'2"	132	1310	1720

life insurance companies as well as by the United States Army Draft Board during the World War presents sufficient data as to the actual weight-height measurements for various age groups of both sexes. From the published figures on the actual caloric expenditure of the individuals that are at present in use for determining the basal metabolic standards, one can derive the total caloric expenditure of any particular group in terms of calories per body weight in the twenty-four hour period.

The mean height and weight of the adult American male was determined during the War from a study of the measurements of over a million men between the ages of twenty and thirty. The height was found to be 5 feet 7½ inches and the weight 141 lbs. If to these measurements one applies the standards in use for determining the basal metabolic rate, the actual caloric consumption can be approximated. Thus the surface area is determined by the nomograph of

accompanying table indicates the results. It is interesting to note how the various factors compensate to result in much the same values.

Actually these life insurance tables should be revised downward to the real, ideal weight. The life insurance standards were obtained by averaging the weights of large groups of individuals regardless of their apparent state of nutrition. When one calculates the tremendous preponderance of the obese in the general population as compared to the so-called underweight people, it is apparent that these figures are "weighted" by this ratio. An actual count of the individuals in a home relief station in New York City revealed a thirty-seven per cent obesity in this group who are living on very limited incomes. At another time a random count of three hundred individuals on a busy corner in the shopping district of New York City revealed a ratio of ten obese to one thin person. Of necessity then, the calculations pre-

machine built primarily for medical diathermy are unmanageable and cause many of the difficulties encountered in electrosurgical technic. I cannot emphasize too fully the importance of a properly constructed coagulation, desiccation, and fulguration circuit for attaining the perfection of end-results with a minimal of discomfort.

To recapitulate, pain is best avoided by careful retraction of the upper reflection of the capsule, the plica semilunaris, when coagulating the upper pole of the tonsil. It is of paramount importance to completely ablate all of the cryptal tissue in the superior fossa right down to membrana basalis. It is in this upper fossa that access to the retrotonsillar area is gained through the very thin capsular tissue separating the tonsil proper from the aponeurosis of the constrictor muscle. Usually the capsule is anomalous here, and a direct communication permits infection to pass without obstruction into the potential peritonsillar space. Should a history of quinsy or retrotonsillar abscess be elicited, it is then necessary to totally eradicate all infected tissue posterior to the tonsil, obtaining a smooth, glistening fossa formed by the aponeurosis of the constrictor muscle of the throat. In this respect I have often noted after the most painstaking and thorough surgical tonsillectomy, where a history of retrotonsillar abscess is present, that infection may remain latent for years. An acute exacerbation of a transient infection may reveal a pocket of pus deep to the aponeurosis of the constrictor muscle. Sometimes in the case of discrete tonsils buried deeply in the muscle, a fistulous tract may require ablation in order that total eradication of an overlooked focus may be accomplished. Electrosurgery is the method par excellence for correcting any of these puzzling abnormalities following the orthodox operation.

To obviate the occurrence of hemorrhage we must again pause to study the anatomy and the physiology of the tonsil from the electrosurgical point of view. The tonsil is highly vascular. It receives its blood supply from at least five distinct branches of the external carotid artery. It is this vascularity

which makes it necessary to follow my double-checking technic to control post-operative bleeding. The modified coagulation technic was first inaugurated to completely control bleeding. It was later that I clinically noted that patients complained less of the pain following coagulation, after the application of the monoterminal electrode both deeply and superficially.

Technic of Modified Coagulation

The patient having dissolved two butyn-amidopyrine lozenges on the tongue and being thoroughly swabbed with two per cent Pantocain solution is then ready for an electrosurgical treatment. Rarely will the pharyngeal reflex require further anesthetization. Depending upon the size of the tonsil, from five to six applications of the biterminal or double tipped electrode are made to cover the entire organ to the depth of one mm and spaced one mm apart. The tip of the electrode is always pointed towards the center and away from the plical folds. Coagulation should never approach the highly sensitive capsule and the reflected plical folds closer than is absolutely necessary. The application of the monoterminal electrode now follows in the modality called desiccation. The pointed, angulated needle is placed through the coagulum for the depth of at least one mm and never more than two mm. The current from the Oudin terminal is now employed to maximum heat tolerance. The patient decides just when the heat generated in the tissue is sufficient to thrombose those larger vessels which may have escaped plugging during the coagulation process. Four to six such applications usually suffice to completely control the primary and secondary bleeding. The same monoterminal needle electrode is now used for fulguration. Sparking is obtained by keeping the tip of the electrode at approximately one mm distance from the tonsil. The entire area of the tonsil is sprayed with this spark of one mm in length. The resultant coagulum becomes drier and much more friable and does not become a foul, sloughing mass. It now will separate out as a pulverized mass almost unnoticed while the patient

ELECTROSURGICAL TONSILLECTOMY

Control of Pain and Hemorrhage

LEWIS J GORMAN SILVERS, M D , *New York City*

Markedly conflicting opinions still exist in reference to the problem of pain and hemorrhage occurring in the routine diathermy extirpation of the tonsils. There are some who, in the throes of learning the complicated technic, prematurely condemn the method as inefficient and even more dangerous than the orthodox surgical tonsillectomy. They have apparently forgotten the time and effort spent in overcoming the hazards of the ordinary surgical tonsillectomy. There are others, however, more recently like Ground,¹ who have no compunctions in "introducing electrocoagulation as the method of choice for the sterilization and removal of tonsils in the adult."

To imply that complete and absolute control of pain and bleeding is possible in every case subjected to electrosurgical tonsillectomy would be either a question of good fortune on the part of the operator or an acknowledgment of ignorance of the anatomy and physiology of the tonsil and its adjacent structures. It is now possible, with a modification of the coagulation technic, which I introduced in 1930,² to so control pain and bleeding that its incidence may be considered entirely negligible. Experience with close to two thousand electrosurgical tonsillectomies covering a period of twelve years, and including a large group of physicians among whom were some nose and throat specialists makes me feel today more strongly than ever in favor of the modified tonsillar electrocoagulation as the method in the adult.

As explained in an analysis of one hundred routine cases,³ pain is a factor in the extirpation of the tonsil independent of the reaction that may occur following each treatment. The "immunity reaction" that ensues is apparently dependent upon the type and virulence of the organism infecting the tonsils treated. Pain on the other hand depends on the damage done to normal epithelialized structures. To avoid pain we must first re-evaluate the importance of the anatomical structures surrounding the

tonsil from the electrosurgical point of view. A scientific appraisal of the deleterious lymphatic structure which requires removal and of the innocuous epithelialized tissue to be avoided is essential to success in this field. The tonsil alone must be coagulated and the palatoglossus and palatopharyngeal muscles or pillars as well as the plica semilunaris above and the plica triangularis below should be sedulously avoided. This is made possible by the use of special pillar retractors and an improved set of biterminal and monoterminal active electrodes.

Examination of the throat of a prospective patient enables the experienced operator to determine at once if the case at hand is simple or difficult to execute. The size of the tonsil, redundancy of pillars, adherence of pharyngeal folds, and the depth of the faucial cavity may all be surmised at a glance. The large, infantile, highly lymphatic tonsil non adherent to surrounding structures is the simplest to remove. The small, deeply imbedded, fibrous tonsil adherent to its pharyngeal folds and bound down by repeated exudative inflammation requires considerable skill to avoid undue pain. Thorough topical anesthesia with two per cent Pantocain for a period of ten minutes is necessary to avoid the pain which accompanies the active biterminal electrode as it contacts the pharyngeal folds covering the deeply imbedded tonsil. To allay the pharyngeal reflex in the hypersensitive individual, I resort to a lozenge containing amidopyrine gr II and butyn gr ss prepared in a suitable pleasant tasting excipient. This troche is dissolved on the tongue just prior to the application of the local anesthetic and may be used at intervals following treatment to allay irritation in the extremely sensitive patient. The machine should be set to deliver a smooth, nonfluctuating current sufficient to produce even, snowy white, nonadherent coagulation. Only an apparatus of low voltage, though high frequency, can accomplish this desired result. The older types of high tension

PERFORATED DUODENAL ULCER COEXISTENT WITH ACUTE APPENDICITIS

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Perforated duodenal ulcer and acute appendicitis occurring simultaneously is a very rare condition. This is attested by the fact that a careful survey of the literature has failed to show that a similar case has ever been reported. The nearest approach was that of André¹ who in 1911 reported the case of a woman presenting symptoms of acute appendicitis. She was operated upon and the appendix removed. During convalescence she developed a cough with purulent expectoration, culture of which showed streptococci, staphylococci, and Koch bacilli. The patient died and autopsy revealed a subdiaphragmatic abscess connected with a fistula to a perforated round ulcer of the pyloric portion of the duodenum. The perforation had occurred after the appendectomy

Case Report

My patient was a male, age thirty-five, painter by trade. He gave a history of having had stomach trouble for two years. There were remissions of this gastric distress, the remissions lasting several months. His appetite was good at all times. He had lost no weight. His father and mother had been subject to attacks of indigestion.

The present attack began with acute abdominal pain, the pain being very severe, cramp-like in character, and localized in the epigastrium. There was marked nausea but no vomiting. He remained in bed did not call a physician, with the belief that he could wear out the pain. Twenty-four hours after the attack the pain was so severe that a physician was called. The pain at this time was generalized over the entire abdomen.

Examination showed an acutely ill male with slightly sunken cheeks and marked pallor of the skin. Temperature was 101°F, pulse ninety, respirations twenty-eight. Pupils were equal, reacted to light

and to accommodation. Lungs were clear and the bases expanded equally. Heart was rapid but not enlarged. There were no murmurs. There was marked tenderness over the epigastrium and right lower quadrant with board-like rigidity over the entire abdomen more marked over the epigastrium and right lower quadrant. Reflexes were normal. Extremities were normal. On admission to hospital the blood count was red blood cells 5,200,000, white blood cells 14,200, polymuclear neutrophils eighty-three per cent and small lymphocytes seventeen per cent, hemoglobin ninety per cent. There was no stippling of the red blood cells thus ruling out lead poisoning. *Urine examination* Specific gravity 1.011, albumin and sugar negative, microscopic a few epithelial and red blood cells.

Immediate operation was performed. On opening the peritoneal cavity there was a large amount of seropurulent fluid. The peritoneum was red and injected. The appendix appeared larger than normal and slightly edematous. The appearance of the appendix indicated that there was not sufficient pathology present to warrant the extensive generalized peritonitis. The appendix was removed and the abdominal viscera examined. There was a large mass of omentum adherent to the pyloric portion of the duodenum. This adherent omentum was removed and directly beneath there was a small umbilicated area 1.5 cm in diameter in the center of which there was a depression two mm in diameter which was loosely covered with flakes of fibrin indicating a small perforation of about twenty-four hours duration. The perforation was repaired and the peritoneal cavity drained.

Pathological examination of the removed appendix revealed an acute appendicitis. The patient made an uneventful recovery and left the hospital three weeks after admission.

316 N WASHINGTON ST

Reference

1 André *Clinique Brux* 25 253 1911

"In the health of the public lies the wealth of the nation"—Gladstone

gargles with a suitable astringent

Coagulation causes a complete destruction of cell walls and nuclei, the tissue becoming a homogeneous, hyalinized mass. Desiccation is confined more to the needle tip and shrivelling of cells and nuclei is evidenced. Fulguration completes the dehydrating process superficially and is most advantageous in sealing the smaller vessels and lymphatics, thus preventing metastasis and undue absorption of any of the toxic end-products of tissue combustion. Should one of the larger vessels remain patent during coagulation, it is the function of desiccation to thrombose this vessel at the margin of the coagulated area. It is important to restrict the heat generated in the tissue to a white, nonadherent coagulum. Cauterization or charring of tissue must be avoided.

As previously demonstrated⁴ the absorption of the end-products of electrocoagulation is provocative of the "immunity reaction" which ensues. This reaction continues after each treatment as long as infection exists in the tonsillar crypts and is independent of the amount of coagulation. The virulence of the invading organism determines the severity of the general response or autogenous vaccine reaction. When the infection is either attenuated or eliminated, as is usual after the fourth treatment to each tonsil, there is rarely a general or grippe-like reaction. Fulguration, although sealing the lymphatics and inhibiting the non-specific protein reaction, does not interfere with the absorption of the end-products of bacterial destruction. It is this absorption, of necessity, which accounts for the unabated vaccine-like reaction which affords the patient so much relief of both subjective and objective symptoms. I have often observed⁵ and already recorded the rapid disappearance of cervical lymph node enlargement, both in tuberculous and non-tuberculous infections, following the first few applications of surgical diathermy. Infection is attenuated or eradicated prior to the total extirpation of the tonsil.

To avoid inadvertent injury to adjacent structures, the electrodes have been insulated with hard rubber throughout the entire shank. The tip alone is left exposed. The angulation of both bi-

terminal and monoterminal electrodes is carefully insulated so that no damage is done to the posterior pillar when the needle is aimed at the anterior portion of the tonsil. The tips of the biterminal electrode are properly blunted to permit the operator to more accurately estimate the depth of coagulation. This is particularly of importance when the capsule is reached. Unless, as has been noted above, there is a history of peritonsillar infection, the capsule should be left *in situ*. The fibrous capsule then acts as a barrier to future invading organisms. The monoterminal electrode used in fulguration and desiccation employing the higher voltage Oudin current has been lengthened to thirteen cm. This permits the shank of the needle to insert into the chuck handle outside of the buccal area and so avoids sparking of tongue and lips.

Effects of Modified Coagulation

A connotation of the principle effects of my modification of electrocoagulation is here appended.

1 Desiccation seals those vessels left unthrombosed by coagulation. Larger vessels at margin of coagulum require extra heat.

2 Fulguration seals lymphatics superficially and prevents undue absorption of toxic products of combustion. Minimizes reaction.

3 Prevention of postoperative adhesions. Pillars and palatal folds are left dry and nonadherent.

4 Pulverization of coagulum. Extreme dehydration makes the coagulum separate away as a fine powder imperceptibly while patient gargles.

5 Sloughing of coagulum is avoided.

6 Malodor and taste avoided when dehydration is thorough.

7 Definite relief of pain due to coagulation is noted. Counter heat of desiccation and fulguration apparently lessens afferent nerve impulses.

1050 PARK AVE.

References

- 1 Ground, William E. *Medical Record*, 141:25, 1935
- 2 Silvers, Lewis J. Gorman. *Arch Otolaryng* 12:511, 1930
- 3 Idem *Ibid*, 21:527, 1935
- 4 Idem *Laryngoscope*, April 1934
- 5 Idem *Med Record*, Sept 2, 1936

MENTAL HYGIENE

Mental Hygiene, Its Importance to You

FREDERICK L. PATRY, M.D., *Albany*

The boast of a western senator that he knew all about horses, on the grounds that he had followed the ploughshare over the prairies most of his life, has been disputed because his claim to such omniscience arose from experience gained from only a single point of view. Our approach to the problems of mental hygiene will espouse a pluralistic one in which all pertinent facts and factors will be presented and interpreted to the end that constructive and preventive measures may be taken.

In order to clarify our understanding of the term "mental hygiene," it should be kept in mind that we are here concerned with human beings functioning as total units, the "you", "I" or "she." Anything which contributes to the well-being or detracts from the optimal functioning of the individual or group is a legitimate concern of the mental hygienist. Just as there are varying degrees of physical health, so a person may enjoy excellent, good, fair or poor mental health. It may be taken to mean the measure of an individual to adapt and adjust himself to the community life in which he lives, to meet life demands and opportunities with a minimum of friction and with reasonable satisfaction. The term "mental" as here used is not synonymous with "intellectual," the former refers to the acts and reactions of a person with respect to his environment, especially social adaptation, whereas the later term refers to discriminatory processes of conceiving, judging, and reasoning. Thus a person may have high intelligence but poor mental health.

Are you aware of the importance of mental hygiene, especially in its positive and preventive aspects? Unlike the man who said "I am open to conviction but I'm damned if you can convince me," I feel that you want the facts rather than a string of honeyed, soul-stirring phrases. The philharmonic approach with its sounding of brass and tinkling cymbal has been so overplayed in an attempt to

arouse interest in the solution of current economic, political, and social problems that a realistic facing of facts may seem in order. Since most of us begin to squeal when our pocketbooks are hit, let us acquaint ourselves with a few of the results of failure to develop an adequate preventive mental health program.

During the past twelve years the State of New York has invested 130 million dollars in new institutions for the care and treatment of the mentally sick. At present there are approximately 65,000 mentally sick (the word "insane" should be restricted to medicolegal usage) patients in state civil hospitals, 3,000 in hospitals for the criminal insane, 12,000 in state schools for mental defectives, and 2,500 epileptics in Craig Colony. The number of mentally sick persons confined to private hospitals, sanitariums, nursing homes, and psychiatric divisions of general hospitals would considerably swell the above census. Moreover, there is likely a larger number of persons suffering from mental illness of varying degree not being treated in institutions. This group floats with partial disability in the home or at work, a terrific strain and burden to the community. Little does the average citizen hear of this significant ambulatory group of mentally sick persons attempting various degrees of socialization until some antisocial behavior is expressed. At the present time the newspapers are strikingly acquainting us with gruesome details of mentally sick persons running berserk.

When you are making out your income tax statements, keep in mind that no small part goes to defray the cost of maintenance of mentally sick persons in state institutions. This amounts to some thirty million dollars annually. But more significant from an economic standpoint is the loss of earnings of persons disabled by mental disease. In New York State this amounts to 129 million dollars, and in our nation some 700 million dollars.

Does there not appear to be signs of

Read before the Women's Auxiliary of the City Hospital, Schenectady, April 13, 1937

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D , Dr P H , New York City

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Sex Stupidities

She is only nineteen and been married for one year and a half. Has no occupation except some very light housework. Full of superstitions about sex, is unhappy because so far she has not become pregnant. She has attacks of restlessness, mental instability, when she insults her best friends, starts fighting, and throws them bodily out of the house. Sometimes she mistreats even her husband, who is exceptionally kind and forbearing with her. She is convinced that she must become insane because some member of her family is mentally ill.

Her husband is twenty-five, robust and very much in love with her. She seems to care for him, but is surely not very enthusiastic, although she says "We're both in love and passionate." No, there is no other man.

She is almost as tall and strong as he is. She is physically in good health and her menses are normal. His semen proves to be abundant with energetic spermatozoa and his sexual act which she demands about five times weekly, is completely satisfactory, as far as he is aware.

But she claims to remain ungratified and masturbates after each relation, without the husband's knowledge. She does it at other times also, every day and several times daily, by rubbing the clitoris. It is an old habit with her, since the age of fifteen. She has never read anything about sex, but has heard that the clitoris was the organ for obtaining an orgasm. Therefore, "she cannot see" how the coitus in the vagina can be of any help. She is doing it through a sort of theoretical conviction.

But, on the other hand, she is afraid that the behavior "interferes with conception." Hence the conflict.

During our conversation it is explained

that masturbation has no effect upon pregnancy. Also about the vaginal orgasm and the role of the clitoris, about her upbringing which makes her expect exaggerated sensations. Then she is told that masturbation, whatever its origin in her childhood, is entirely unnecessary in her case and that she can undoubtedly get rid of the habit. She has wrong ideas about sex life. It is a shame, an insult to nature that in the presence of this splendid, vigorous young man who comes to her with all his love and desire, who should represent to her, as it were, the entire creation, she needs a poor, mean substitute. She is bound to make him deeply unhappy, perhaps in the near future, and eventually to wreck her own life. She must decide whether she loves him or not and then act frankly and honestly according to her feelings, etc., etc.

These words, finally, have their effect. She is also taught about the possible result of excessive intercourse and excessive irritation both upon her and her husband, she is told to sleep separately so as not to cheapen the sexual relations, which should always be a thrill, a holiday. Being too much used to one another's body makes it a humdrum business. She is directed to have some outside interest and to plunge into some activity that would engross her. She will conceive some day. There is no hurry about it at her age. It is best for her not to concentrate on this thought. She is assured that the case of insanity in her family is not at all a danger for her.

Within less than a year this marriage became a success as far as a marriage can be, and stayed so. The young woman was mentally normal and the first baby arrived two years later.

611 W 158 St

AND THEN THERE'S THE 19TH

Just as the dentist was leaving his office the telephone bell rang. He answered it and found that it was a patient wanting to come that afternoon. "I'm afraid I can't give you an appointment for this af-

ternoon," the dentist replied. "I have 18 cavities to fill."

And he hung up the receiver and hurried off to the golf course.—*Illinois Medical Journal*

large number is due to head injury received in accidents of various kinds in the home, industry, and particularly on the road. Thus the need for efficiently directed safety education programs by our schools, health departments and other safety-minded groups.

Since people are in general living to an older age than a generation ago, we naturally expect an increase of mental disease due to cerebral arteriosclerosis and senility. This same condition obtains in the realm of physical diseases in certain instances, for example the increase in diabetes, cancer, heart and vascular affections in the upper age brackets. This trend would point to the need of emphasizing a preventive mental hygiene program for those in middle life and beyond. The art of living wisely and well here, as indeed should be the case all along the life span, demands more critically directed effort.

But our greatest challenge from an educational and preventive point of view lies in the field of so-called functional mental illnesses which amount to over sixty per cent of institutional cases, and a still larger number of extramural patients. As far as we know they have no structural defect or disease. They are victims of inadequate habits of adjusting to various stresses and strains encountered along life's highway. The original stuff out of which a certain number of these patients was made may not have been as stable or as solidly put together as in the case of the so-called normal. But little will be gained by blaming heredity. Our job is to so shape environmental stimuli and pressure that hereditary endowment may have the best chance to flourish. This does not gainsay the need of a positive eugenics program.

Let us erect a few guideposts for a mental hygiene program keeping in mind that health is a relative and highly individual matter and therefore suggestions should ideally be tailor-cut to fit personal needs.

1 Parental and pre-parental education may be referred to as education of the unborn child and it is here that our greatest hope of a better adjusted generation lies. Granted that common sense consideration is given to the selection of a mate since undesirable constitutional or ingrained tendencies may be accentuated or

modified by wise mating, the rearing of the child through the years one to six should be of focal concern. The basic patterns of adjustment to life are woven into his plastic and sensitive personality at this time. Their texture and quality largely determine his success in latter life adaptation.

2 The school has the second opportunity, at least in an organized way, to constructively unfold the child's nature and direct its development. The happy child is perhaps our best indication of the educational shoe fitting the child. Schools should primarily be *diagnostic* centers if educational treatment is to be rational. We must know his level of ability and kind of ability if his curriculum is to guarantee him the habit of success in achievement and in social integration. Adequate educational and vocational guidance will be invaluable in helping him find his occupational niche for which he is best equipped to effectively fill.

3 Since we are largely creatures who live by habit, a well-balanced program of work, play, rest, sleep, relaxation, diet and elimination will prove a sheet-anchor in daily life. In these days of enforced leisure time we should not forget the mental hygiene values of social participation in cushioning our anxieties and in maintaining an objective attitude toward life. On the other hand the value of work as a stabilizing and sustaining force cannot be overemphasized.

4 Recognizing the need of challenging conflict, tension and risk for mature development, we also must assure ourselves of adequate security and affection. There is such a thing as wholesome failure but the prevailing life adjustment pattern must be one of success and satisfaction in the business of living. The feeling of belonging, of being wanted and loved, or at least constructively socially regarded, are essentials of our emotional atmosphere.

5 Since the person always reacts as a total unit we should make sure that the part-functions are in optimal working order. Of particular importance is the physical substratum of mental life. Thus annual and semi-annual physical examination (including dental examination) should be espoused. It is cheaper to prevent illness than to pay doctor bills after sickness has overtaken us.

surcease in this day of science? No. On the contrary, since the years immediately following the World War, there has been a steady increase in the admission rate to state institutions. At present there are about 13,000 new cases a year. Re-admissions or lapsed cases returning to state hospitals number 3,000. The net increase of admissions for the mentally ill is 2,500 per year, and about 600 for the mental defectives and epileptics combined. It would appear that an adequate building program indicates a new hospital every two years for 5,000 new cases. The per capita annual cost is \$350 to \$400 exclusive of housing or capital investment charge. It costs \$4,000 to build a hospital per patient, or \$4,000,000 for 1,000 hospital beds. About one person in every twenty in this state will at some time in his or her life be admitted to a hospital for the mentally ill. There are more persons confined in mental hospitals than there are in all other types of hospitals combined. Truly the staggering problem of mental disease and its prevention is number one public health challenge today. If we include delinquency and crime as products of an inadequate mental hygiene program, with its national toll of some thirteen billions of dollars, our task demands the intelligent and active support of every man, woman, and child. What can we do about this appalling octopus?

The institutional cost for care and treatment of the mentally sick augurs well for increasing reduction by virtue of critical paroling as soon as it is safe and beneficial for the patient. Of particular promise in this direction is the family care of carefully chosen patients. In Europe this method has reached larger proportions than in this country. Moreover, newer methods of treating certain mental illnesses (particularly general paresis and dementia precox or schizophrenia) are significantly contributing shorter treatment and earlier parole. But the problem of treatment of full-blown cases of mental illness although very important should not be our point of chief concentration of interest and expenditure of material and human resources. We must look to the causes of the various types of mental illness and seek to enucleate or modify them. Thus the preventive psy-

chiatric or mental hygiene approach must challenge our critical capacity for capitalizing our needed resources. Let us briefly inspect a few worthwhile causal factors to tackle.

We definitely know the causes of mental diseases due to alcohol and syphilis which amount to some ten per cent each of total institutional cases. We do not expect human nature or intelligence to wipe out the manufacture of alcohol from the face of the earth. But we do feel that an effective program of temperance education (and this also applies to eating, work, recreation, rest, sleep, loafing, and all other human activities) may teach habits of self-control which will safeguard the individual from excesses and teach him the advantages and satisfactions of abstinence in many or most instances. The individual must learn to sense his stride or pace and keep well within it if a margin of safety is to obtain. We must also recognize a wide variation in individual differences in capacity to withstand the temptation of exposure to alcohol and the need of protecting the emotional and volitional infants from themselves and others whom they affect. For those who voluntarily reach out after alcohol for various reasons, education in the art of drinking from the standpoint of individual limitation and influence on others may find a significant place. Of growing moment is the relation of alcohol to accident frequency. The alcoholic driver must be banished from our highways.

In the case of syphilis as a cause of mental and physical disease, the State Department of Health is courageously acting as a spearhead in making available scientific knowledge concerning sources and methods of infection and sound methods of early diagnosis and treatment. It has been said that if extramarital sexual intercourse could be eliminated syphilis would disappear in a single generation. Effective methods of sex education, euphemistically called "social hygiene," is a crying need of today.

Another unnecessary and therefore preventable group of mental illness arises from injury to the central nervous system. Some of these are attributable to birth injuries which may be largely prevented by more adequate obstetrical care. But a

Draco (621 B C) had established a death penalty for rape and seduction as well as adultery, and he was followed by Solon who legally established prostitution. And this is a classic conflict of civic ideals in two administrations representing changes in the mores and variations in moral standards. To denounce or accept legally involves a shift in moral viewpoint. Man changes his institutions and is changed by them, but how deeply is he changed?

John Locke commented, "Men I think have been much the same for natural endowments in all times." This viewpoint was further developed by Buckle who stated, "Whatever, therefore, the moral and intellectual progress of man may be, it resolves itself not into a progress of natural capacity, but into a progress, if I may say so, of opportunity, that is, an improvement in the circumstances in which that capacity after birth comes into play." In support of this doctrine he stresses the contrast between the stationary aspect of moral truth and the progressive aspect of intellectual truth. His viewpoint is supported by Sir James Mackintosh. "Morality admits no discoveries. The fact is evident that no improvements have been made in practical morality."

This viewpoint has not always been accepted. Lecky, for example, maintained, "It is quite certain that morals exhibit as constant development as intellect, and it is probable that this development has exercised as important an influence upon society." He recognized, however, that the moral changes have been due more to emotional quickening than to intellectual judgments. This being true it is obvious that the changing intellectual growth, for some reason called civilization, would not be markedly effective in shifting the morals of generations if such generations were exposed to a different series of emotional stimuli. And aren't they all? Tylor in "Primitive Culture" regarded morality as "an essential variable, progressive, perfectible, that is a reflex of wants, of usages, and of circumstances. What is good here is bad elsewhere—as to take care of one's infirm parent or bury him alive." For him "Morality or ethics signifies the act of conforming to the manners of society to which we belong. There are no two races in the world which have exactly the same code of morality, but each has its own which is

sanctioned by public opinion." One may go further than this by saying that different generations possess their own sanctioned codes just as markedly as do different races. And it is the nature of these fluctuations in sanctions and the conditions giving rise to them that creates much of the annoying differences constantly revealed between the older and the younger generations.

Theophrastus writing on "Impertinence" in approximately 343 B C describes the man who, "When he begins to be warm in his Discourse he says the world much degenerates and the present age is more wicked than the former." De la Bruyere, writing late in the seventeenth century concerning Theophrastus' exposition of *The Moral Characters* stated, "Now, those whose manners Theophrastus paints were Athenians, and we were Frenchmen, and if we add to the diversity of Place and Climate, the long interval of time and consider that this Book was wrote in the last year of the CXV Olympiad, three hundred and fourteen years before the Christian era, and also that 'tis above two thousand years since the people of Athens liv'd, of whom he draws the picture, we may admire to know ourselves there, our Friends, those whom we live with, and that being defiant to each other for many Ages the resemblance should be great. In short, Men in their Souls and Passions change not but are still the same as they were, and as they are described by Theophrastus, Vain, Dissemblers, Flatterers, Selfish, Impudent, Importunate, Distrustful, Backbiters, Quarrelsome and Superstitious."

Plutarch giving his views on life states in his book of morals written during the first Century A D "but the faults of young men are often grave and serious, as gluttony, and robbing their fathers, and dice, and revellings, and drinking bouts, and deflowering of maidens, and seducing of married women. Such outbreaks ought to be carefully checked and curbed. For that prime life is prodigal in pleasure, and frisky, and needs a bridle, so that those parents who do not strongly check that period, are foolishly, if not unawares, giving their youth licence for vice." They did not talk of the Revolt of Youth in Plutarch's time, they merely wrote of youth.

During the early period of the new era, laws on morality were what today would be called exceedingly lax, and the freedoms

6 Seek a critical consensus of opinion to assist you in maintaining an objective attitude toward life adjustment problems. A confidential relationship with others will not only act as a safety valve for anxieties and fears, but also may give you new points of view which may prevent as well as reduce unwholesome tension. It should assist you in gaining insight into the motivations of behavior and in being mentally honest with yourself and others.

7 Keep ambition and standard of living in hailing distance with your capacity to reasonably satisfy them day by day.

8 A wholesome sense of humor and of the ridiculous will help you laugh at your own mistakes as well as the foibles of others.

9 Mental health attitudes and practices are largely caught rather than taught. Wholesome as well as vicious emotional reactions and patterns are readily absorbed, especially by the sensitive growing child. We cannot be neutral in influencing the behavior of others. We are constantly radiating personality development values at all times. It therefore behooves us to take a critical inventory of our prevailing reactions since few of us are beyond the stage of improvability. Take care where you ventilate your complaints and troubles.

10 Knowledge of the determinants of the behavior of yourself and of others is desirable if positive growth and planning for better personality functioning is to

flourish. We need to gain the habit of *interpreting* conduct rather than judging it. Behavior is merely a symptom of the individual seeking satisfaction — security, affection, mastery, social recognition and approval, and a feeling of being wanted and belonging to the group which he respects and admires. Thus growth in experiencing a "satisfaction formula" to meet individual needs is essential if we are to realize a larger degree of maturity in personality functioning—self-direction, self-reliance, self-sufficiency, self-criticism, and self and social control. We have mentioned the desirability of early diagnosis of abnormal physical functioning. It is just as important, or more so, that periodic mental health stock-taking by yourself assisted by a specially qualified mental health physician be made a regular periodic practice. The prevention of the tremendous economic burden of mental illness, not to mention personal suffering and family misery, lies in early diagnosis and treatment of unwholesome deviations in individual patterns of life adjustment. To this end child-guidance clinics, mental hygiene and psychiatric clinics, and the physician specializing in psychiatry stand ready to help you.

Home, school, church, and every constructive community agency has its unique role to play in assisting you enjoy good mental health.

214 STATE ST

And It Ever Will Be Said Of Youth

IRA S WILE, M D, *New York City*

The gray-haired philosopher regretfully and sadly remarked to the young cynic, "Things are not as they used to be." And the young cynic eagerly and gladly remarked to the gray-haired philosopher, "No, they never were." This represents in brief the situation of the age-old conflict between two generations.

The cycle of moral development appears to be one of generation, degeneration, and regeneration. Infancy and childhood are building up in terms of social patterns, adolescence and early maturity are struggling against rigid mores, middle age and senility are protesting, demanding, even

when regretting, the necessity for the acceptance of their ancient laws, regulations, and patterns of behavior.

The relation between the period of degeneration and of regeneration is always of interest and ever seems to be of importance. To each age it presents its peculiar form and structure and its special mode of expression. Let us stress briefly and in part evidence of the recognition of this conflict without any special comment or discussion to show how right the young cynic was when he answered "No, they never were."

A great conflict in viewpoint was manifest in Athens 2,500 years ago. The Archon

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State Medicine?

Our society is on record, through the action of its House of Delegates, as opposed to State Medicine. Meanwhile events are transpiring, and pertinent facts are being established which we here note.

It has often been argued that a fact is a fact only in virtue of the evidence put forward in favor of it. Where evidence is absent, no facts are established. Sometimes scientific facts are established as such by inference only. Occasionally a fact is established by inference plus a certain amount of evidence. As Al Smith was wont to say, "Let's look at the record," and establish the evidence which adduces the facts that we are already being surrounded by "State Medicine," and then let us ask ourselves what we are doing about it.

Massachusetts,¹ making a study based on a survey of five hundred families in regard to the adequacy of medical care, showed that 13.4 per cent of those who were studied, were found to need medical care that was not obtainable. Fifteen per cent reported that finances prevented the use of a physician. True, the number investigated was not large, the group consisting of only 1,820 persons. The significance of this lies in the fact that

this happened in Massachusetts, and not in some southern or outlying state. Furthermore, what we desire here particularly to stress are the measures taken to meet the situation. Massachusetts, among other things in its adopted program, asks cooperation from industrial, fraternal, social, and health organizations, and desires to establish welfare department responsibility for an intelligent administration of medicinal care for the *indigent* and the *near indigent* in each town and city by employing licensed physicians of the community at reasonable pro rata fees, and subsidizing licensed practitioners to locate where there are no physicians in residence. In other words, Massachusetts seems to conform to our view that the care of indigents are a proper charge on the community and their medical care should be paid for from tax funds.

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At the Annual Meeting of the Medical Society of New Jersey, held at Atlantic City recently (April 29, 1937), the Society went on record as favoring a "luxury tax" to provide hospitalization of the indigent. It further went on record to urge county medical societies to assume responsibility for providing preventive medical care for all residents.

¹ J. A. M. J. 108 140 B 1937

and excesses existent and permitted as described by Salvianus, Bishop of Marseilles in the middle of the Fifth Century A D were quite in harmony with Plutarch's succinct exposition. The laws of, and for, morality first became of primary importance for enforcement under the action of the Puritan sects. In truth the confusion of moral standards that resulted from strivings against nature brought about a public sentiment in which it may be said with all propriety that the value of purity increased as virtue diminished and this condition of affairs obtained especially in the thirteenth and fourteenth centuries. Even the beautiful love story of Abelard and Heloise tells of moral standards wherein libertinism was more highly esteemed than lawful marriage.

Shakespeare writing in the latter part of the seventeenth century puts into the mouth of a Shepherd in "A Winter's Tale" words clearly reminiscent of Plutarch, "I would there were no age between ten and three-and-twenty, or that youth would sleep out the rest, for there is nothing in the between but getting wenches with child, wronging the ancients, stealing, fighting,—Hark you now!"

Ferguson's Scottish proverbs compiled near the end of the sixteenth century contained one that has ever been true "Youth and Age will never agree." This is quite in harmony with James Howell's more physiological version, written in the middle of the seventeenth century "Youth and Age cannot agree." Y Adams had a somewhat more sad view as he wrote in the first quarter of the seventeenth century, "This is the devil's dispensation, Youth must be borne with."

John Wesley giving a sermon before the Society for the Reformation of Manners in 1763 made a plea to "Lift up a Standard against the iniquity which overflows the land." The eighteenth century as a whole had its own standards of gaiety, and the lanes of Hyde Park of today are probably less adventurous than was the same Hyde Park for fashionable people during the years ranging from the reign of Charles II to George II—those gay days of flirting and intrigue with the assistance of the mask and the scarf and the hood. The days of the early eighteenth century may have presented marvelous coiffures and extensive and voluminous costumes but still it was written of Tunbridge Wells in 1724,

"Every gentleman is equally received by the fair sex upon the walks" and "you engage with the ladies at play without any introduction."

Slipping into the United States in the early nineteenth century by way of Timothy Dwight, one time President of Yale, one finds him writing in his *Travels*, "That my fair country women, especially the young women are willing to display their persons, and their dress, on proper occasions, I am not disposed to deny." And that was in an era when it was no small task for a woman to display any part of her body. Dwight quotes and weakly denies a statement made by the Duke de la Rochefoucault De Liancourt, "It is usual for young people at the age of thirteen to leave the family of their parents and go into the service of others. The parents find it vain to detain them, if they are not permitted to work as others do they will not work at home." Incidentally Doctor Dwight also makes a statement which applies today "The modern education is attended with more expense and parade, but is not productive of greater moral or intellectual improvement."

"The bounds of freakish youth" have long been recognized vaguely, but bounds have ever changed. All are not as pessimistic as was Disraeli writing in *Coningsby*, "Youth is a blunder, manhood a struggle, old age a regret." Possibly Pliny was more sane in his outlook when he stated "By Hercules! The greatest part of the evils that happen to men are from the hand of man himself." It is not possible to change the limits which are due to the time, the place, and the circumstances of life.

Man shifts the circumstances of his own generation but the circumstances shift growing youth. Each generation makes its own responses to its new world and age of trial and experiment. Youth cannot satisfy a generation that has developed because it is not exposed to the same influence, opinion, atmosphere, practices, and mores. Hence there are, as there ever have been, those to talk of errant youth, flaming youth, revolting youth.

It is time that rational elders ceased indicting and calumniating youth. Let middle age be reflective, honest, and meditate upon the splendid wise suggestions of the Talmud "Limit not thy children to thine own idea. They were born in a different time."

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of their communities¹ In other words, the palliatives which preventive medicine holds out for better health protection are to be provided for everyone in the community

Is this State Medicine?

During a recent week (April 29) the hospital survey of the metropolitan area was made public At this time we do not desire to make detailed comment upon the results of this survey but one factor stands out The physicians in the metropolitan area contribute about twenty million dollars worth of medical service annually to the indigent The survey recommends that the physicians making this contribution should receive pay for this service Of course this pay will have to come from tax funds

Is this State Medicine?

The State of New York recently passed a legislative act appropriating a large sum of money for pneumonia control and for the manufacture of pneumonia sera There was no expression of any opinion that this money *was not to be spent for the benefit of all the people of this state* There was no limitation to its dispersal only for indigents or near indigents

Is this State Medicine?

Finally, in New York City, the daily papers carried the story that the division of the city's health department which manufactures sera, bought many additional horses and proposes to enlarge its facilities For this purpose a considerable sum of money was allocated There seems to be no limiting criteria, as to the disposal of the manufactured products of the department

Is this State Medicine?

We could add more evidence, but we think we have enough factual examples of a trend of the times to put the question squarely up to our membership

Surely we are having an evolutionary development of State Medicine Organ-

ized medicine must necessarily meet this problem There are definitions to be made, limitations of applicability to be developed The eligibility of individuals to participate in the use of tax funds needs careful elucidation Eventually if this factual trend with which we are confronted is allowed to run its course unguided and unregulated, government will face us with a *fait accompli* We shall have full-fledged State Medicine upon us, with private practice going on along its upper-income-earning fringe

Pondering these questions, on the eve of our state meeting, it would seem that we must first of all divest ourselves of the fear in which the very term "state medicine" puts us Because we dislike this "bogey man" is no reason that we shall not face its advent squarely We need to be realistic in this, and recognize that in the present era all the elements that are pressing for what they call social justice are bringing factors into medical practice and medical care for the people which were undreamed of in a prior period As soon as we recognize this, we will find that there is still a very important role which we as an organized profession must play to guide and if possible to control this new type of practice When the trend in everyday affairs is for government to intervene in the average life of its citizenry, then we cannot expect that the medical profession will not also have governmental intervention in its affairs Our efforts to preserve all that is traditionally fine and good in the old type of private practice need our constant vigilance and care The changes are pressing closely upon us We, too, must change to meet the general situation Trees that cannot bend to the wind, break, and their crowns are lost "They must change often who who would be constant in happiness and wisdom" says Confucius Limited state medicine is already more than approaching To some extent it is here Where are the elements in our organized profession which should be studying its encroachments upon private practice and

¹ The New York Times, page 23, April 30, 1937

who should set fair and square limitations to its growth, without prejudice to the underprivileged and with justice to the profession which has heretofore so well served their class-groups, who is it that shall say to government how far and for what specific purposes tax funds are needed to bring availability of medical care to everyone who needs it?

There never was a time in our memory when enlightened leadership was more necessary than now to preserve what is good, and additionally to meet the newer situations with planned and considered propositions

A National Bureau of Health

Our President, Dr Floyd S Winslow, struck a statesman's note in his address before the annual dinner meeting of the Cornell University Medical College Alumni Association on April 29, 1937.* He urged the formation of a national bureau of health in the interest of economy and more efficient public health administration. He stressed the fact that the bureau should be separate and distinct from a welfare bureau or department. The arguments favoring the view he presented repeatedly have been presented in these columns, and need no repetition now. Any one who approaches the study of this question from an intellectual rather than an emotional standpoint will find little with which to disagree with the views held by organized medicine

All surveys, and particularly the report of the American Foundation, have gone on the assumption that we of these United States were working and developing our future status as practitioners of medicine under a well-considered and carefully worked out national health policy. We act and think, as if there were such a policy in existence, and that its program is known to us. If there is one, we would like to know it, and begin to

study its contents and implications. Likewise if there is even a state health policy in existence, we would like to peruse it. As a matter of fact, there is neither a national nor a state health policy in existence. The establishment of a national health bureau or department, as suggested by Dr Winslow, would constitute the first logical step toward the formulation of a national health policy. There are enough experts on the pressing problems of the "medical day" in this country, but there is no central agency which can or does call them together to meet and consider planning for the nation's health and developing a sequence of events to bring into being a policy which can logically find wholehearted backing by the "socializers" on the one hand, and the organized profession on the other.

At the present moment, we need this planning more than anything else, for the instant problems are broader and more embracing than are met by the pet schemes of compulsory health insurance which, by the way, is the only solution thus far advanced by any group of thinkers on the problem. That more is needed than what compulsory insurance holds forth is evident to every thoughtful observer. The establishment of a national health agency, embracing all health activities of the government is the first necessary step toward solving the problems confronting us, and developing a national health policy.

The A M A at Atlantic City

We have told in detail the story of the forthcoming meeting of our State Society in Rochester on May 24, and in the merest outline sketched the high-lights of this important medical meeting. No one who can possibly spare the time should absent himself. Those who attend will draw dividends in relaxation, pleasure, and added medical knowledge from this meeting.

Today, we particularly desire to ask our members to attend the various func-

*See page 978, this issue, for the address in full.

tions of the American Medical Association in Atlantic City between June 7 and 11. This is the outstanding medical meeting of the year. Here you will find occasion to meet in reunion with others of your college fraternity, here there will be section meetings in all branches of medicine at which the newest and latest will be both presented and discussed. Organized medicine, through its national, democratically organized House of Delegates, will consider, discuss, and adopt policies having important implications for the practice of medicine in the future. The large scientific exhibit brings research workers and clinicians into intimate contact of inestimable benefit to both. Lastly the general meetings will provide addresses and discussions which because of the national, nay, almost international character of the essayists cannot but be both interesting and stimulating. One leaves an annual meeting of the A M A prouder than before that one holds some position in this important organization. The critics of the A M A should all attend and observe procedures and actions with an analyzing eye and an open mind. Perhaps some of them may thus see that there is little regimentation of the profession by officialdom of the A M A, that there is no dictation from above, and that whatever is determined upon is the considered opinion of an overwhelming number of the delegates elected to represent their own state organization.

Finally, we of New York have a deeper interest in the meeting this year. Dr. Charles Gordon Heyd, the President, is one of us. We know him well. Long has he worked in our midst, and he has the good wishes of the New York State organization. We also take pride in the Speakership, under the masterly gavel of Dr. Nathan B. Van Etten. These New Yorkers have brought us both pride and glory.

Is it therefore strange, that we urge New York not only to send a full delegation, duly accredited, to the National House of Delegates, but also are ask-

ing that this state send a large contingent of New Yorkers to the general sessions and the various scientific assemblies.

This is really New York's year at the A M A. Let's all go! Whatever happens, our leaders will thus know that the State they represent is unanimously behind them and takes pride in what has been achieved.

Making the Profession Articulate

Dr. Winslow, in his address before the Cornell Alumni on April 29, struck another significant factor in our organization when he said, "Physicians should take a wider interest in public affairs, and should voice their interest and the views that accompany it, in language to be understood by a taxicab driver." He deprecated the profession's reliance merely on resolutions passed by medical societies in presenting their views to the public "since such official pronouncements" were not "'persuasive'." Our House of Delegates has established a Public Relations Bureau *to do just that*. In intricate paramedical and medicosocial questions are dealt with and the news so disseminated that "a taxicab driver" can, and does comprehend their import. It is impossible to estimate the results of this work in elements that can be added together to make a total. It is impossible to estimate intangibles. It is however apparent that a better apprehension exists among the public generally, in this state, of organized medicine's standpoint, and it seems evident too, that our work in the legislative halls of the state seems easier. One is not so often confronted with the ignorant standpoint that organized medicine plays a sort of "unionized" or "guild" role. Both public and legislators, as well as our own rank and file understand better what we stand for, the goal we aim at, and the obligation we are under to protect the public.

Real Democracy

Let us hope that the United States has no need of the example in medical de-

mocracy recently set by Canada—or that if it ever has, it will follow it

A proposed plan of compulsory health insurance had aroused vigorous controversy in British Columbia. The provincial College of Physicians and Surgeons conducted a poll to determine how many of its members were in favor of participating in the scheme. The result was decisively adverse. 619 ballots against to thirteen for. When this was reported to the premier, he immediately ordered a cessation of collections pending a review of the entire situation.

These events have a triple significance. They effectively refute assertions that compulsory health insurance has the support of British Columbia physicians. They give hope that responsible officials are beginning to realize that no medical plan can operate successfully over the opposition of the medical profession. Above all, they show that it is never too late to resist a wrong—that what appears to be a losing struggle may take a winning turn in the last ditch.

Conditions in British Columbia are not so irreconcilable with the situation in this country as to forbid comparisons. Here as there agitators are trying to introduce a medical system to which the profession is opposed and for which no spontaneous popular sentiment exists. Here as there physicians are inclined to let things drift without formulating their own remedies for acknowledged ills.

Let us hope that the comparison can be carried further—that here as there a reserve of fighting spirit in the profession will struggle to the last inch for the independence and integrity of medical practice and that our government, like theirs, will respect democratic tradition in medicine.

Destructive Taxation

Senator McCall's bill imposing an additional tobacco tax to establish free dental clinics for all school children has reached a third reading. Further ad-

vancement should be opposed by every thinking citizen. There is no need for such a measure. Facilities already exist for the provision of dental service to the needy. There is no more reason to furnish such care gratis to the children of well-to-do families than there is to supply them with free food or free clothing. Available funds should be spent for the benefit of the underprivileged, not to release those in good circumstances from fundamental responsibilities.

Measures like the McCall bill create a demand for governmental service that cannot possibly be supplied without wrecking the existing political and economic structure of this country. Various forms of relief have drained the sources of taxation so heavily that they are rapidly drying up.

The middle and lower classes, in whose behalf many such projects have been initiated, are beginning to discover that there is no Santa Claus; ultimately they must pay the bill. Rising commodity costs growing out of current inflationary trends hit the small wage-earner and petty business man most heavily. Income fails to keep pace with mounting prices. The result is a lowered standard of living which menaces health.

Relief cannot be discontinued for the millions who are still unemployed or unemployable. As long as the taxpayer is burdened with this enormous load, there is no justification for the extension of governmental aid to those able to provide for themselves.

The failure of recent tax yields to come up to expectations is a warning to national and state legislatures that they are depleting the goose which lays the golden egg. The McCall bill would impose another vexatious tax on the masses to benefit a class which has no need of aid. Free dental service is already available to the indigent.

There is no limit to the number and type of services the state can be authorized to provide. The question is, how much can it afford to undertake and who pays the bill in the last analysis?

For More Assets

The report of the treasurer of our Society, published in our issue of April 15, should be carefully studied by our members for the clarity with which it describes our financial status and requirements. Dr. George W. Kosmak is to be congratulated upon his extraordinary skill in the handling of the Society's funds and the caution he exercised in the selection of its investments.

To one of his statements we desire to call special attention. "The status of your Society's treasury may be termed as satisfactory but with the general financial condition of the country more or less uncertain and future returns from the sources of our income possibly effected by changing conditions, it remains to *conserve to the highest degree the principle of your assets*" (Italics ours). We add to this that it is extremely urgent for us to increase our tangible assets materially.

The largest item in our income was from membership dues, which figure was just \$6,425.80 more than our total expense of \$136,674.20. The excess of all income over expenses was \$17,646.55. With the ever-changing trends in legislation confronting us, and with the possibility that certain pressure groups might force a change in the present system of medical practice to the detriment of the public and the profession, we must be prepared to guard the interests of our patients as well as ourselves. To do this requires money. A glance at the detailed expenditures shows conclusively that they are being held to a minimum. In fact each year, more and more problems confront the Society and their solution places a steadily increasing tax upon its treasury.

Some plan must be evolved to augment our income and substantially bolster our surplus against the time when we may require it. The House of Delegates might well place this question on its agenda and our members should give

this serious thought in their County Societies. We most imperatively need a larger nest-egg.

Coronary Sclerosis Among Doctors

Is coronary sclerosis an occupational disease? One cannot help arriving at this conclusion after having read the studies of Smith¹ concerning the incidence of this disease among various groups of our population. His figures show that coronary sclerosis occurs least often among those who do manual labor and most frequently among those who do mental work.

Of the latter group investigated, which included clergymen, lawyers, bankers, and physicians, the incidence rate of coronary sclerosis was twice as great for the doctors as that noted for the other professions. In speculating upon the reason for this, Smith writes "A physician's routine work, which includes ordinary obstetric cases with their complications, broken legs, severe cardiac diseases, scarlet fever and diphtheria among children and pneumonia among the aged, and the responsibility of the surgeons which is probably greatest of all, is actually or nearly as intense as that of the banker when there is a run on his bank. In other words, what is a crisis for the banker and business man is more or less routine for the physician."

What shall we do about it? We are not able, because of the very nature of our work, to follow the advice we give our patients. In spite of the high incidence of coronary sclerosis among us (107%) the "show must go on" and "it will ever be thus" as long as there are doctors and the sick to whom they minister. *Sic transit gloria mundi*.

CURRENT COMMENT

BALZAC ONCE SAID, "Bureaucracy is a giant walled by pigmies. It has a natural

¹ Smith, H. L. J. A. M. A. 108:1327, 1937.

tendency for mediocrity, a predilection for statements and reports, and is as meddling as a small shopkeeper's wife. It has shirked every question, protracted delays and perpetuated abuses, the better to protect and perpetuate its own existence"—We thank the St. Louis County Medical Society *Bulletin* for calling our attention to the above

DR ELLIOT C CUTLER, Mosely Professor of Surgery at Harvard University, wrote to *The New York Times* under date of April 7, at some length regarding an editorial of theirs on "Doctors and the Public." He states "You have obviously discerned the fact that all within the profession are not in harmony upon how to better care for the health of the public as a whole. You have noted that organized medicine is still vigorously opposed to the State intruding itself into this field

"We must be cautious in what steps we take, for on the whole the profession of medicine has done more for the good of the people than any other profession. It has itself repeatedly 'cleaned its own house,' so to speak, stiffened the requirements for the education of the doctor, weeded out poorer medical schools, and given liberally of its time for the care of the needy and suffering members of society

"This long and honorable course of the profession of medicine scarcely deserves to be jettisoned, as some would say, in order

that we may immediately turn over the care of the public health to the State. We have had experience already with the government care of less vital projects, to our dismay, and there lies in medicine still an impenetrable matter in the personal relationship between doctor and patient that should cause us to hesitate throwing it overboard. I happen to be one who believes that in an enlightened state the State itself may well play an important role in the care of the people. We have seen Sweden do this with great benefit to the public welfare, and we should be able to do as well. But in changing from one order of things to the next we should work slowly, and the planning that is to go forward must be cautiously and intelligently carried out, and this is not a matter for the moment."

"THE NECESSITY OF CREATING the unification of man in order that he may live happily in the modern world gives the physician a unique position of opportunity and responsibility," declared Dr John Dewey of Columbia University, in an address at the convocation of the American College of Physicians in St. Louis

"STATE MEDICINE IS A plush horse upon which a scheming bureaucracy rides ruthlessly into public power and destruction of that same public which supports it."—We have the *Illinois Medical Journal* of April to thank for this metaphor in regard to state medicine

THE NEXT STEP IN SAVING BABIES' EYES

Nearly thirty years ago, the National Society for the Prevention of Blindness began a war against ophthalmia neonatorum (babies' sore eyes)—a disease causing blindness to the newborn, through the presence of germs in the birth canal of the mother

Although the use of prophylactic drops at birth was known to be an almost infallible preventive, it was not until their use was made mandatory that the incidence of blindness caused by ophthalmia neonatorum began to drop, until now it has been reduced more than seventy-five per cent.

Today the National Society for the Prevention of Blindness feels that the problem of blindness or damage to vision from syphilis must be attacked with the same concerted vigor that resulted in the phenomenal

reduction of ophthalmia neonatorum, says *The Sight-Saving Review*. It is an established fact that prospective mothers who have syphilis can bear healthy children if prenatal antisyphilitic treatment is administered in time. A blood test is the universal method of determining the presence of syphilitic germs. The Society therefore joins all interested agencies in sponsoring measures which make it mandatory for routine blood tests to be made on all expectant mothers by their physicians—whether they be private or clinic patients. By discovering, and following up with treatment, all syphilitic expectant mothers, we may hope for a marked decrease not only in blindness and defective vision but in human misery and wretchedness, if not utter tragedy

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked 'private'. All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Low Protein Diet

850 Park Avenue
New York City

To the Editor

Under the noble designation of Nutritional Review, is it permissible to present an ill-digested and discriminatory resume of scientific literature? In the April first issue Doctors Pollack and Dolger present an Alpha and Omega which few of us are willing to countenance.

Being a review, it is wholly unnecessary, we agree, to insist upon a practical point of view. However, when pretence is being made to clarify the field of nutrition, and to remove misrepresentation and distortion of facts, it is far from becoming in this effort to introduce further factual errors as the authors inadvertently accomplish in their second paragraph.

The statement that leafy vegetables contain a minimum of two per cent protein is a definite error. It is granted that the analyses of soy bean meal, dried navy beans, dried lima beans, dried peas, macaroni, peanut butter, and whole-wheat bread are correct, in the raw state, but research reveals few instances demonstrating the ability of the human to eat the dried peas, beans, flour or the alimentary pastes in the raw.

Macaroni in the uncooked state does contain thirteen per cent protein but when boiled the protein content drops to three per cent. This cannot be considered a high protein food.

The recommendation of dried meats and fish to obtain a high protein intake is little short of ridiculous. The number of these items which are edible in the dried state is distinctly limited and aside from a type eaten by the Portuguese and Spanish peoples, they are eaten, in very small quantities, as appetisers. The pleasurable volumetric limit of intake of peanut butter cannot be taken with any seriousness as for protein content.

One cannot help wondering at the *raison d'être* for the review. The most recent data is already six years old. Only three out of seventeen references fall within this decade. Half the citations are dated from 1866 to 1910—quite old enough for historical significance only. Forty-one per cent of the references are in languages other than English. That in itself makes the article authentically high-hat.

The writers, of course, have a point to sell. This should have been underscored, bold-faced, or otherwise designated. Since the authors failed to do so, let us do it now. "It is virtually impossible for the average individual to avoid consuming an adequate amount of protein." How comforting for both patient and doctor alike!

The review is all the more pernicious in that it is couched in such readable terms and decorated with names illustrious enough to cast a scientific halo about the article. The very pithiness of the quotations causes us to imagine that the original investigators might be startled by the nakedness of their words.

Of course, we may be guilty of gross, though not malicious, misunderstanding of the authors' purpose in presenting this paper. Nevertheless, it strikes us that Pollack and Dolger have chosen to report only such data as serve their purpose. Take the experiment that Deuel performed upon himself, for instance. They might at least have spelled the name correctly—a minor detail, no doubt, and probably not even their fault. First of all he was in good condition before he started on his sixty-three day ordeal. In the second place he was not trying to find out at what protein level he functioned best; he was carrying out a drastic experiment to rob his body of its "deposit" protein so that he might ascertain something of the fundamental biochemistry of the body. His diet consisted of sucrose, cornstarch (some of it eaten raw in aqueous suspension), centrifuged orange juice, lettuce, codliver oil, and an artificial mineral mixture. Pollack and Dolger neglected to mention that the basal metabolic rate fell, that body weight suffered a gradual loss, that there were periods of intermission when the subject indulged in the usually-accepted protein diet, that in period five of the experimental series "a slightly larger amount of protein was given on account of extreme nausea which had been caused by the previous diet."

Granted that Deuel "readily carried on his laboratory and other duties," somehow we just do not reach the conclusion that such a regimen is exactly the sort of thing the doctor could heartily recommend to a sick patient or to a college athlete for that matter. No fair-minded person doubts but that Deuel demonstrated that "the true endogenous metabolism in the case of a normal adult male is slightly less than ten grams

daily" Nevertheless, we would hardly preach that everything will be Utopian once we all arrive at eating ten grams of protein as our daily ration. It is one thing to be a guinea pig and cause the body to reveal its secrets by forcing a chemical show-down, it is quite another to experience vim, vigor, and vitality.

On March 15, 1932, Drs. Ashe and Mosenthal, under the title "A Study of the Average Diet," read at the section of Medicine at the Academy of Medicine, presented a resume of the protein, salt and fluid consumption of 1,000 residents of New York. This paper showed that the protein intake was forty plus grams per diem.

This article appeared in the April 3, 1937, issue of the *Journal of the American Medical Association*. However, the conclusions, although previously unpublished, have been common knowledge among those interested in nutrition and have received text-book and periodical acknowledgement.

On page 634 there is what appears to be a contradiction of facts in the reported observation of the German people during the World War. Von Muller observed that the intake of thirty grams of protein daily produces all the symptoms of protein deficiency, which was in itself an acknowledgement of the nutritional status of the race. The truth of the quotation from Lusk still obtains, but it is certainly no proof relative to an adequate protein intake.

The serious part is that some one is bound to take Pollack and Dolger seriously. We thought the profession had pretty well learned the folly of protein restriction in nephritis. Are we to discard all the accumulated knowledge of clinical medicine in return for a few scientific bouquets?

If I am to believe that the final sentence is the resume of this erudite piece of work, the conclusion to be derived is not only erroneous, but based upon not only inaccurate facts but inaccurate deductions made from real contributions to American literature.

We have no quarrel with the results of earnest research, but facts still have to be interpreted, and we feel impelled to protest lest the attitude characteristic of such irresponsibility infect that generous slice of our readers who find it troublesome to exercise their gray matter. The more so should a hue and cry be raised if this be but a sample of what is yet in store for us from the same source.

Very truly yours,

MILTON A. BRIDGES, M.D.

April 21, 1937

More Anent Diets

515 Park Avenue
New York City

To The Editor

I wish to protest against the statement made in the April 1 issue of the *STATE JOURNAL* by Herbert Pollack, M.D. and Henry Dolger, M.D. in their article "Nutritional Reviews I—Protein Requirements." The statement is as follows:

Bayliss, the English physiologist, made the pertinent remark "Take care of the calories and the protein will take care of itself."

This statement may be correctly quoted, but it can hardly be approved. The general practitioner who has labored with his diabetic cases to get the carbohydrate intake adjusted and the proper protein balance maintained will hardly be in accord.

One who endeavors to combine the service of old-fashioned family physician with that of modern medical science and take care of lives instead of merely repairing bodily damages, often sees in the field of adolescence both young men and young women commonly damage themselves by an excess of carbohydrates or a deficiency in proteins.

If Pollack and Dolger mean that, if we manage to control and keep down the carbohydrate and fat calories in the diet, then the patient or health client will be forced to increase his protein intake, then we can approve the implication, however much we disapprove the direct statement.

We welcome careful studies of nutrition. We need reliable information, and it is not too plentiful. We should be glad to be corrected if we are wrong in believing that from eighty to ninety grams of protein are a reasonable daily standard for adjustment of the diet of the adult.

We are slow to be convinced by new and fanciful theories. But while we are glad to see reference to work done by Pettenkoffer and Voit in 1866, yet we miss some references to work done in nutrition since 1931 with which the authors may be familiar, but to which they do not refer. We were under the impression that some of the recent work was really promising.

The article will cause considerable comment. It was a good thing for the *JOURNAL* to publish it. We need to be stirred up.

Faithfully yours,

C. WARD CRAMPTON, M.D.

April 29, 1937

Lymphogranuloma Venereum as a Cause of Rectal Stricture

509 W 155th St,
New York City

To the Editor

"To take issue," is a high privilege and a divine right, to employ such terms as "undoubtedly" and "I have no doubt" in an opinion concerning the etiology of disease in a group of cases never seen, known only through a brief article which totally disregarded the problem of etiology, is low comedy

In the paper which originally appeared in the March 1 issue of the *Journal*, I stated in what I had considered clear terms, "The etiology of rectal stricture is debatable. *The problem of the obstetrician transcends etiology*." As to whether or not the etiology of rectal stricture is debatable, Dr Kassebohm and myself ventured to consult Dr L T Wright on the subject. Dr Wright does not have the "privilege of observing" original work on the subject, he is doing that work. In his opinion there is no doubt that the etiology of rectal stricture is not entirely a matter of lymphogranuloma venereum

The etiology of stricture holds no interest for Dr Kassebohm or myself unless such knowledge would serve to melt away the stricture. We are interested in the management of labor in the patient who demonstrates a rectal stricture and, unfortunately, the cause of that stricture has little or no effect on the problems of labor. We trust this makes our viewpoint a bit more lucid to Dr Rothman

I must state too that we have no regret concerning the failure to employ the Frei Test in this group of cases. The results of such tests would in no way alter the plan of management we originally suggested. The Frei Test is employed often enough in the study of Dr Wright's cases and Dr Wright is still pondering the test and its complete significance

To Dr Rothman we extend a cordial invitation to discuss the etiology of rectal stricture, not with us but with the source of the statement with which he is in disagreement. We extend too an unbounded admiration for one, who from a great distance and perhaps by some God given telepathy, can, without ever seeing a patient,

venture an opinion free of doubt and unsullied by uncertainty

Very truly yours,
MILTON J SCHREIBER, MD

P S I must state with a thousand regrets that after many readings of Dr Rothman's letter (published in the April 1 issue of the *JOURNAL*) I have yet to find in it those important facts which I had not correctly evaluated. The letter had as its ostensible purpose the pointing out of those facts

April 28, 1937

An Appeal for Old Medical Instruments

28 Eagle St.
Albany

To the Editor

I wonder if this letter might find its way into the pages of the *JOURNAL*, for, as time passes, the worth of the effort that is being made becomes harder and the profession is losing some of its valuable data on its material side

Dr Chas C Adams, Director of the State Museum, State Education Building, Albany, N Y has been for some years collecting old instruments, books and other material pertaining to the medical profession, having in view some day to give an historical survey in the mechanical line, of medicine in the State of New York.

He is anxious to obtain any old medical, veterinary or dental instruments which may be added to the collection and I hope this letter may reach some of the members of the profession whose predecessors had old instruments which have descended unto them

Any gift to the Museum should bear a tag on which is written the name of the instrument, by whom used and the approximate date of its make, together with the name and address of the donor and date of the gift.

While it may be some time before he can complete his project, yet all such gifts will be preserved in the safe in the State Education Building to the credit of the donor

Sincerely yours,
JAMES N VANDERVEER MD

April 5, 1937

"The process of thinking draws the blood from the feet to the head," an educator informs us. This explains, perhaps, why, in

so many cases, if you think twice about a proposition, you get cold feet.—*Atlanta Journal*

PRIZE FOR REPORT ON CASES OF PNEUMONIA

The Advisory Committee on Pneumonia Control of the New York State Department of Health offers a prize of one hundred dollars for the best report of a series of cases of pneumonia

The competition is open to all physicians residing and practicing in New York State outside of New York City. Interns in hospitals may compete but the report in all cases should include only those cases actually seen and studied by the writer, and should include all cases of pneumonia of all types and forms treated by him either in private practice or in hospitals during the present winter

In awarding the prize less stress will be laid upon the number of cases than upon the objectivity exhibited by the writer in his description of the cases and upon the originality and independence shown in the interpretation of the clinical features. Credit will be given for the extent to which the newer methods of diagnosis and treatment of cases of lobar pneumonia were employed. If the writer desires, the report may be documented by full clinical histories and laboratory reports, but the report itself should not be longer than 5,000 words and be in a form suitable for publication in the NEW YORK STATE JOURNAL OF MEDICINE

Reports should be in the hands of the Committee not later than August 15 and the award will be made October 1

Address further inquiry to

Dr Edward S Rogers,
Director, Bureau of Pneumonia Control,
New York State Department of Health,
Albany, N Y

Annual Meeting

Fourth Day Program—Thursday, May 27

1 Sight-seeing Shopping Informal visits to Memorial Art Gallery, Rundel Memorial Building, and Rochester Museum of Arts and Sciences

2 Highland and Durand-Eastman Parks are very attractive during May Lovers of nature will enjoy the collections of flowering shrubs, particularly the lilacs, rhododendrons, and azaleas

3 For those who would like to visit the great factories and laboratories of the Eastman Kodak Company and the Bausch and Lomb Optical Company, special arrangements will be made It will be necessary to register for these trips at the Registration Booth

4 The laboratories and clinics of the School of Medicine and Dentistry of the University of Rochester will be open to visitors during the morning Operative gaiter clinic at the General Please register

5 Golf will be the feature of the day The Inter-City Academy of Medicine Golf League, which includes the cities of Rochester, Buffalo, Syracuse, Utica, Toronto, and Hamilton, will hold its annual competition with the golfers of the State Society The League tournaments every year attract a large group of golfing doctors Although there will be but eighteen holes of play the scores may be used in many individual and team contests All events except the individual championships are on a handicap basis A method of handicapping will be employed which will give every one a chance, no matter what kind of a game he may play Among the contests will be the Lilly Trophy Competition, for Academies of Medicine, the individual championship of the state, the individual championship of the League, and several other contests where Lady Luck instead of skill will

count. A handicap contest for seniors, open to doctors who have attained sixty years of age, a left-handed doctors' handicap, and special team matches between Toronto and Hamilton, Rochester and Hamilton, Syracuse and Buffalo have been arranged Other cities may arrange contests if desired

At the conclusion of the tournament there will be a banquet in the ball-room of the club, during which prizes will be awarded

The fee for the golf tournament is four dollars This includes entry fee, greens fee, and banquet It does not include the caddy fee, which is one dollar for eighteen holes

Because of the large, yet unknown number who may desire to play, it is necessary to know several days beforehand the probable number of entries The difficulty of securing three hundred extra caddies on the afternoon of a school day is obvious Those who enter early will be assured a caddy and preference in starting time If prevented from playing, for any reason, all fees will be returned except the expense fee of one dollar

The tournament will be held at the Oak Hill Country Club where two championship courses are available. Players may start at 10 00 A M and 1 00 P M

The sole object of the tournament is to promote good fellowship among the widely scattered doctors of New York State and Canada It is not necessary that one be a skilful golfer to take part or to win a prize There are several valuable prizes for the champions, but there are many more for the occasional golfer who is not greatly concerned about his score So send in your entry, bring your clubs and come prepared to enjoy a great day

The accompanying blank may be used

JOHN R. WILLIAMS, M D, CHAIRMAN
388 MONROE AVENUE ROCHESTER

Please enter me in the golf tournament of the Medical Society of the State of New York

I do not belong to a golf club

I belong to the

My club handicap in 1936 was

I enclose check for \$

Signed

Address

golf club of

Annual Meeting

On the occasion of the 131st annual meeting of the Medical Society of the State of New York, a public forum on "Progress in the Art and Science of Medicine Through Photography" will be held on May 26, at 8 P.M. at the Eastman Theatre.

Those who plan to attend this forum may obtain tickets through the convention headquarters, the Chamber of Commerce, upon arrival in Rochester or by mail directly from Dr B. J. Slater, Medical Department, Kodak Park, Rochester.

Opening Address Dr Floyd S. Winslow,
President of the Medical Society of the
State of New York

"*Advant of Anesthesia*" Film—commemorating the discovery of ether by Dr Morton of Boston

"*Modern Anesthesia*" Film

"*Photography of the Eye in Health and Disease*" Commentator Dr Arthur Bedell of Albany, New York, formerly President of the Medical Society of the State of New York

Two piano duet—Leopold Mannes and Irene Gedney

Darkfield Photography—"Bacteria of the Mouth"

Roentgenological motion picture prepared by Dr R. Janker, Chirurgische Institute of the University of Bonn, Bonn, Germany and supported by "Reichsstelle für den Unterrichtsfilm Gemeinnützig G.m.b.H.," showing the head and neck with contained organs

"*The Migration of Blood Cells*" Commentator Dr Warren H. Lewis of Carnegie Institute, Department of Embryology, Baltimore, Maryland.

A new test to determine the degree of efficiency of pasteurization of milk—

prepared by the Health Department Laboratories of the city of Rochester. Commentator Dr Charles Carpenter, Associate Professor of Bacteriology, University of Rochester

"*Pneumonia Typing*" A community protection. Commentator Dr Charles Carpenter

"*The Use of Kodachrome and Infra-red as an Aid to Diagnosis*" Commentator Dr James H. Sterner in charge of the Laboratory for Medical Research Eastman Kodak Company

Violin and Piano Selections—Leopold Mannes and Leo Godowsky

"*Life History of the Mosquito*" Film. Commentator Dr Oliver R. McCoy, Assistant Professor of Parasitology, University of Rochester

"*Roentgenological Views of Normal and Abnormal Conditions of Various Organs and System of the Body*" Film. Commentator Dr James M. Flynn, Vice Speaker of the House of Delegates and Chairman of the Section on Roentgenology

"*Kodachrome motion picture of blood circulation*" Commentator Dr Stafford Warren, Associate Professor of Medicine in charge of the division in Radiology

Entertainment for Ladies

Chairman, Mrs J. Craig Potter

Monday—May 24

2 00 P.M.—Hobby Show (Hotel Seneca)

7 00 P.M.—Dinner at Hotel Seneca for all doctor's wives (Under auspices of Women's Auxiliary)

Tuesday—May 25

10 00 A.M.—Hobby Show (Hotel Seneca)

1 00 P.M.—Luncheon—Oak Hill Country Club

All visiting doctor's wives will be guests

2 30 P.M.—Drive (following lunch) Residential districts, lilac festival, and Parks—the University of Rochester

7 00 P.M.—Dinner of the Medical So-

cety of the State of New York at the Chamber of Commerce

Wednesday—May 26

10 00 A.M.—Sight-Seeing Trip through Eastman Kodak Co

Wednesday Afternoon

President and Mrs Alan Valentine and the ladies of the Medical Faculty of the University of Rochester extend a cordial invitation to the ladies of the Medical Society of the State of New York, and the visiting ladies to a reception to be held at Eastman House 900 East Avenue, from four to six. Guests are asked to present cards which will be obtainable at the Women's Registration Desk, on the Mezzanine Floor of the Hotel Seneca

Hotel Committee

The Annual Meeting of the Medical Society of the State of New York will be held in Rochester, on May 24, 25, 26, and 27. This meeting will be largely attended, and the hotels will be taxed to their capacity. It is therefore important that you make your reservations at once.

Below you will find the names of the hotels listed. The Seneca will be Hotel Headquarters for the meeting.

Please write immediately to the hotel of your choice, as early reservations are important. If you are not successful in securing satisfactory accommodations, kindly communicate with the Rochester Convention and Publicity Bureau, Rochester, N Y, or with the Chairman of the Hotel Committee, Dr Austin G Morris, 277 Alexander St., Rochester, N Y.

HOTELS

CADILLAC, 45 Chestnut St
FORD, 57 Chestnut St
HAYWARD, 7 Clinton Ave S
POWERS, 34 Main St W
NORMANDIE, 253 Alexander St
SAGAMORE, 115 East Ave
SENECA, 26 Clinton Ave S

SINGLE	WITH BATH	
	DOUBLE	
\$2 00 - 3 00	\$3 00 - 5 00	
1 50 - 2 00	3 00 -	
2 50 - 3 00	3 00 - 4 00	
2 50 - 3 00	4 00 - 7 00	
2 50 - 3 00	3 00 - 4 00	
3 50 - 4 00	5 00 - 7 00	
3 00 - 5 00	4 50 - 8 00	

Annual Banquet

The Annual Banquet of the Medical Society of the State of New York will be held on Tuesday evening May 25 at seven p m in the large Assembly or Dining Hall of the Chamber of Commerce, in Rochester.

In order to assure yourself and your wife of ideal table reservations, it would be wise to contact Dr E T Wentworth or Dr B J Duffy, addressing your letters to 13 Prince Street, Rochester.

The price of the dinner tickets is five dollars.

Addresses

Greetings from the American Medical Association by Dr Charles Gordon Heyd

"We Look at Ourselves," by Dr Floyd S Winslow, Retiring President, Medical Society of the State of New York

"Shadows in the Mirror of Health," by

Dr T Wingate Todd of Western Reserve University

"The Doctor and Public Opinion," by Mr Carl Ackerman, Dean of the School of Journalism, Columbia University

"Is the Doctor Human?", by Dr Gordon Laing of the University of Chicago

Distinguished Guests

Distinguished guests include Dr Arthur M Johnson, Commissioner of Health, City of Rochester, Dr Albert D Kaiser, President, Academy of Medicine, Rochester, Dr George W Kosmak, Treasurer, Medical Society of the State of New York, Dr Morris Fishbein, Editor, Journal of the American Medical Association, Dr Arthur W Booth, Member, Board of Trustees, American Medical Association, Charles Stanton, Mayor, City of Rochester, Dr George H Whipple, Dean, Medical College, University of Rochester, Marion B Folson, President, Chamber of Commerce, Rochester, Dr Thomas Parran, Surgeon General, U S Public Health Service, Dr Charles H Goodrich, President, Medical Society of the State of New York, Dr James F Rooney, Chairman, Board of

Trustees, Medical Society of the State of New York, Roland B Woodward, Secretary, Chamber of Commerce, Rochester, Dr Leo F Simpson, Chairman, Arrangements Committee, Medical Society of the State of New York, Alan Valentine, President, University of Rochester, Dr Nathan B Van Etten, Speaker, House of Delegates, American Medical Association, Dr Samuel J Kopetzky, Speaker, House of Delegates, Medical Society of the State of New York, Dr Edward G Whipple, President, Medical Society of the County of Monroe, Dr Joseph P Henry, President, Rochester Pathological Society, Carl S Hallauer, Advisory Board, Committee on Arrangements, Frank J Smith, Advisory Board, Committee on Arrangements

COMMITTEE ON LEGISLATION

Bulletin No 14

April 30, 1937

We had hoped that the Legislature would be able to complete its business and adjourn this week, but we were disappointed. Without doubt they will finish next week, either Wednesday or Thursday.

We still have a number of irons in the fire, as you will observe from the statement below. One of the bills in which we are particularly interested now is the Malpractice Bill. The bill that passed the Senate, known as the Esquirol Bill, has received several very valuable amendments in the Assembly. Among these is one including the dentists. This bill should pass the Assembly Monday night, or Tuesday morning at the latest, and we hope to have the Senate concur in the amendments immediately.

Senator Feld advises us that very powerful opposition has appeared to the Kleinfeld Radiology Bill, which he says will prevent him from reporting it out of his committee.

Senator Feld amended the Advertising Bill another time by reintroducing an unprofessional conduct clause. This kills the bill so far as its passage this year is concerned.

We are about persuaded that it will be impossible to amend the Lien Bill satisfactorily this year. One ray of hope has come out of the discussion on this bill, and that is some of the opposing attorneys are thinking that they might have less difficulty in securing the cooperation of physicians in settling negligence cases if they are interested in a lien on the award rather than fees to be paid by the attorney.

Action on Bills

S Int 737—Livingston—Public Welfare Law, home relief administration—Passed Sen, 3rd rdg As

S Int 838—Esquirol—Physicians' malpractice, public institutions (A Print 3081)—3rd rdg As

S Int 1851—Feld—Medical inspection of all school children—Passed Sen

S Int 2027—Livingston—Deaf children commission for—Passed Sen

A Int 574—Bush—Health Law births, register—3rd rdg Sen

A Int 1950—Miss Todd—Practice of radiology—Put over to May 4th

HOMER L NELMS
JAMES L GALLAGHER
B WALLACE HAMILTON
JOHN J MASTERSON
LEO F SIMPSON

TO WIN THE NEXT WAR WITH SODA MINTS

A dispatch from Berlin says that a simple method of increasing physical capacity and endurance between thirty and one hundred per cent was outlined before the Berlin Medical Society by Professor Helmut Dennig, noted director of the fourth medical university clinic of Robert Koch Hospital in Berlin.

The method, which has been tested in numerous laboratory experiments as well as in the German sport field, consists of increasing the body's alkali content, thus enabling it the more easily to rid itself of acids, especially lactic acid, which is one of the principal causes of exhaustion.

The additional alkali content, said Professor Dennig, can be supplied in such a form as bicarbonate of soda, related preparations and special foods, such as soya bean flour.

This method, he insisted, is wholly dif-

ferent from doping by drugs because it does not increase but rather reduces the bodily effort which is required for certain tasks.

To be effective, he explained, alkalization must be produced suddenly and must not last longer than two to four days. Experiments have shown that a runner thus prepared was able to run at full tilt for forty-two minutes instead of twenty, as formerly, and that a bicycle racer was able to maintain a sprint for 159 minutes instead of 109.

However, said Professor Dennig, sport was not the primary consideration of these experiments but rather the employment of this method "on other occasions." Inasmuch as German science is coordinated with military economy, this method may well be used to increase the German soldier's efficiency and endurance in attack.

Presidential Address

The Doctor and the Public

FLOYD S. WINSLOW, M.D., Rochester

President, Medical Society of the State of New York

I believe I am indebted to you, Dr Livingston Farrand, for the theme of what I wish to say tonight. At the moment I cannot repeat the precise words in which you made the statement to which I refer—perhaps you will let us have it later—but the meaning of what you said was that one of the chief problems of our people is to learn to recognize their *real* experts.

We will all admit that the physician is a real expert. Most people who are sick consult him, but many go to charlatans, many prescribe for themselves or consult the clerk at the sandwich bar in the drug store. And in matters affecting the public health the doctor is not always accepted without reservation as a real expert. I wish to inquire why this is true, and to discuss for a few moments the philosophy of the doctor's relations, as a group, with the public, so-called, as a group.

We have witnessed a striking revolution in the thinking of civilized mankind in the last generation. It is far more potent in its influence on our lives and the future of humanity than any single war, for this revolution bears within itself the seeds of many wars, as well as the seeds of everlasting peace. I mean that the use to which modern scientific advances have been put in increasing the facility for the exchange of communication by radio, by telegraph, by airplane, by newspaper, magazine, and pamphlet, has so magnified the ability to consolidate public opinion, that the real expert of tomorrow—nay, of today—is only the man who can persuade the public that he is an expert. Grant that the public too often has insufficient means of knowledge, grant that the arts of persuasion in the hands of the wrong persons may become the blandishments of sophistry, my point is that the time has come when no cause can prevail,

no expert be recognized, no benefits conferred on society by philanthropy without the coincident use of the tools of deliberate popular persuasion. The expert, be he doctor, lawyer, or philanthropist, who ignores this fact, is doomed.

Governments all over the world today address each other in terms of what will appeal to the public, rather than what will appeal to the officials of the governments addressed. Commenting on this fact, let me quote Professor DeWitt Clinton Poole, director of the School of Public and International Affairs, Princeton University:

Until a short time ago a diplomatic note was addressed in spirit by one group of bureaucrats to another. The language was restrained and often technical. A phrase that would seem to the ordinary reader merely solemn might convey to the initiated the threat of war. Though traditions of that kind are apt to be tenacious, those diplomatic documents of the post-war era which deal with major issues of policy and therefore touch the people, have taken on quite a different character and tone. I ask you to refer to the notes published by the French and German Governments after Germany had occupied the demilitarized zone of the Rhineland. Though nominally directed to official quarters, these communications were hardly more or less than stump speeches aimed at the broad masses of the people in sending and receiving countries and everywhere else. The manifest purpose of both the French and German declamations, like other diplomatic notes to which we have grown accustomed recently, was not by intellectual presentation to convince a foreign office or a ruler, but rather to arouse public opinion at home and abroad and align that opinion on the side of the government publishing the note.

It is significant in this connection that Professor Poole has recently launched a quarterly publication called "Public Opinion." It is devoted to the study of influencing public opinion, both objectively as to the forces which are functioning, and more

Address delivered at the annual dinner of the Cornell University Medical College Alumni Association, at the Biltmore Hotel, New York City, April 29, 1937

subjectively as to the methods and technics of those who are specially engaged in propaganda, using that term in its better sense, the dissemination of ideas for the purpose of convincing or persuading large numbers of people

What is organized medicine to do in the face of this new force which is, by virtue of the revolution I have named, coming into control of society? Ortega y Gasset in his "Revolt of the Masses" has fully described this great revolution, and pointed out that the masses in liberal democratic countries have possessed themselves of the political power to move directly toward their desired ends, often mistakenly under ignorant, misguided or unwise leadership, but frequently in the promotion of beneficial measures. What is medicine to do? Remain, as we have too often been, the experts who should be, but who are not always, consulted? Or shall we, with dignity and decorum, and in keeping with our ideals and aspirations, take upon ourselves the obligation of explaining fully to the public what we stand for, why we stand for it, in terms that can be understood by a taxicab driver?

An illustration or two, and I leave the question with you. In medical society meetings time and again I have heard resolutions passed against this or that, condemning proposals as "inimical to the interests of organized medicine," or criticizing "lay control" of medical concerns, or stating that the doctor is the "best judge" of how medical care should be distributed without, at the same time, presenting any reasons for these dictums. Now the doctor may rightfully be the best judge, and yet be without a court to sit in. The public may not like his assumption of authority and decline to elect him. There are other people claiming to be judges, too, and we cannot dismiss them summarily, unless we are able to present better reasons for being right than they have. We should offer these reasons in such a way that from them it is obvious that we are right. When we say that compulsory health insurance will provide for "lay control" of medical practice we don't get very far with the man who thinks perhaps the doctor's motive is resentment against somebody else being as it were "in on the gravy" who isn't a member of the guild. Now what we really

mean is that it is not to the interest of *the public* that men not trained as physicians should come between the doctor and his patient. Then why don't we say so? It is not at all convincing to say of a proposal that it is "inimical to the best interests of organized medicine." On close scrutiny it will generally be found that the proposal is also inimical to the best interest of the public, and because of this it becomes inimical to the best interest of the doctor. Why don't we say so? And why don't we give the reasons, not rest content with official pronouncements and edicts?

I am reminded at this point of a story they told years ago at Cornell of the young lawyer arguing a case to the court who was interrupted by the judge saying, "Young man! That is not the law." "No," replied the young lawyer, "but it was before your honor spoke." That story may not be a good one to tell at all in a very few years. Our brothers of the bar, too, are feeling the force of public opinion. It is seriously questioned whether they are really experts. They are challenged to prove it. The crowd, dynamically vocal in the world today, does not understand and questions all previously accepted institutions. "How?" and "Why?"

May I cite a timely example in a matter now before our national legislature? In the government reorganization which is planned, there is provision for the consolidation of departments. Organized medicine believes, and has stated, that all health activities should be in one department divorced from social or welfare matters, and in charge of a physician as its chief executive officer. But it is not enough merely to enunciate this. Immediately the thought will occur to those in Congress who will have the decision, as well as to those in the administration, to say nothing of the general public, that they would like to know the reasons behind our position. Just *why* should these activities be consolidated just *why* should they be administered by a physician?

Permit me to submit a few reasons, not only as now pertinent for the consideration of those who have these decisions to make but also as an illustration of my present theme.

A department to combine health and welfare inevitably offers a multiplicity of

complex problems in diverse fields, in which it is impossible for one administrative chief, or for any subordinates, to have had such training and experience as to be useful in both the medical or health and social service aspects of the work. Such a department would, if so constituted, make it probable that its chief would be a non-medical person. It is likely that a doctor would hesitate to administer matters of a social work character, in which he might not consider himself especially qualified. But a lay person with social work training might consider himself capable of taking charge of the health and medical affairs of the nation, despite his lack of training and experience in medicine and in public health.

Why is education, training, and experience in medicine and public health essential for the chief administrator of such a service? The reasons are not difficult to explain. Any administrator, lay or medical, will wish to avoid unnecessary expenditures of funds. It is part of his duty to guard jealously against proposals which are of doubtful merit, to disburse his budget carefully to obtain the greatest possible benefit. What is useful and what is not useful, what is wise and what is not wise, what will work and what will not work in medical and health matters, is not by any means so apparent to a man without medical education as it is to a doctor. Time is lost in presenting to the administrator evidence which does not need to be offered to a man whose experience has taught him to *know* these subjects already. In cases of the highest practical importance it has been frequently the case that a non-medical administrator makes decisions against competent advice because incompetent advice sounds more plausible to him. Not only are public funds dissipated, but obstacles and delays to real headway are interposed by pursuing a policy of doing the job while learning how to do it, a process of trial and error.

Governments select experienced architects to design buildings, experienced builders to build them. In public posts where doubtful questions of income tax are presented, a bookkeeper will not take the place of an accountant. In concerns more important still, such as the health of the people, an executive who is untrained medically might come to the task with

the best intentions, but it would be inevitably many years before he acquired a smattering of the rudiments of disease prevention and control. This should be a basic part of his original equipment. He is unqualified without it. If conscientious, he would in effect be attending a part-time medical school at the expense of the public. He would learn through costly mistakes.

There is no lack of available qualified candidates. Several physicians, adequately trained in medicine, with years of successful public health experience to their credit, could be named, any one of whom might head up a department in which all public health activities of the federal government were merged. There is no need to take a chance with a man incompletely equipped. Tried and proved personnel is nowhere more important than in the sick room, the hospital, the laboratory and the public health service. Men who are to work together in a common enterprise as the private physician and the public health administrator must do, need to speak a common language which will take for granted many details which cannot be part of the equipment of a non-medical man. The doctor in the health service and the doctor in private practice possess in common a large body of accumulated knowledge which has been made available through education, training and experience. Public health work, at its best, essentially requires cooperation between the public health authorities and the private practitioner. The physician's interest and skill will be best elicited if both he and the health officer fully understand the alphabet by means of which they communicate.

These reasons may not be the best ones. They may not be convincingly presented. Other considerations may intervene to prevent their acceptance by Congress. I am offering them as an illustration of my point, which needs the comparison of this method of presentation with the one which groups of doctors usually use in expressing themselves. I shall read you now a resolution on this subject passed by the executive committee of the Medical Society of the State of New York, and will ask you to compare it in its capacity to persuade, with the presentation which has just been made.

Resolved that the Medical Society of the State of New York urge that the

reorganization of the federal government combine in one department all medical and health activities making this a separate and distinct department, and urge especially the nomination as chief executive officer of such department of a qualified physician with a record of achievement in administration

This resolution is not offered in criticism of the executive committee of the Medical Society of the State of New York of which I am president. There is no other way than this for an institution to speak. I am offering it to show that something additional is needed which cannot be supplied by the anonymity of committee action, but requires individuals to speak as human beings, one to another

I am not recommending that medicine address itself to the public in this way on subjects other than those which may prop-

erly be described as quasi-medical, rather than as medical. I am opposed to spokespersonship for medical societies being vested in any other persons than officers or executives of the organization responsible to the membership. We must protect the public from the use of this tool by the unscrupulous charlatan who might connive with the journalist to advance his personal interests under the guise of interpreting organized medicine

This concludes my presentation of the matter, except to add that it is apparent we must have spokesmen who can and will study the forces which are operating in society to form public opinion, who have courage to take the risk of temporary misunderstanding and criticism of some of their fellow doctors, and they must address themselves deliberately to the use of these new forces in civilization if these influences are to operate to the benefit of the *public* and the doctor

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Application blanks may be obtained by addressing the office. If you desire it, a personal visit by our representative can be arranged

Our sincere thanks to the Medical Society of the State of New York for this space

New York Physicians' Mutual Aid Ass'n,
2 East 103 Street, New York City

Public Health News

The General Practitioner and Tuberculosis

The author of the paper on which this abstract is based is a tuberculosis specialist whose earlier professional years were spent in a somewhat arduous general practice, and who is as a result of this experience unusually appreciative of the difficulties under which the general practitioner labors, particularly in the handling of his tuberculous patients

In any tuberculosis control program the general practitioner is the connecting link between the patient and the tuberculosis specialist. Each of the three has certain responsibilities regarding the early diagnosis of tuberculosis and each, therefore, must bear some of the blame for cases diagnosed late,—the patient in that he has disregarded his symptoms, the practitioner in that he did not “tumble to it earlier,” the tuberculosis specialist for failing to x-ray suspected cases. How may this chain be strengthened?

Considering first the link between the patient and his doctor, it is patently impossible to set the machinery in motion unless the patient comes to his doctor. Can anything be done to reduce the quite considerable percentage of patients who ignore their symptoms? The answer is, of course, a more adequate health education program so that “the public can be better informed about the onset of tuberculosis and the importance of early diagnosis.” And the responsibility rests on tuberculosis associations and health departments.

In other cases, however, the delay in diagnosis is chargeable not to the patient but to the physician.

Here medical education must bear a large part of the blame. All too often the cases of tuberculosis seen by the medical student show all the classical signs and are, therefore, in an advanced stage. It is difficult too for the student to appreciate the slowness of the clinical course of tuberculosis. Most illnesses can be watched by the interne from immediately after onset until their termination. In tuberculosis he has “brief glimpses of different individuals at different stages and with different reactions” and “he is a genius if he can piece together the story from these odd chapters torn from different books.” In this instance the challenge is to the medical schools.

Yet whatever the shortcomings of his undergraduate training in the diagnosis and treatment of tuberculosis the physician who

engages in general practice will encounter many cases of tuberculosis and must therefore keep it ever in mind and use every opportunity for improving his ability to diagnose it. The author would impress upon the minds of all newly qualified doctors the following two thoughts.

“Always be on the lookout for TB even though you run the risk of being thought a crank for your pains. Never label an illness ‘influenza’ if there is no epidemic without subsequently having the chest x-rayed to make sure.”

The general practitioner will frequently encounter a case which he has reason to believe is tuberculosis but on which he needs expert advice or additional diagnostic facilities, and it should be possible for him to secure x-ray plates of his patient's chest and where necessary the services of a tuberculosis specialist.

He is also much more likely to maintain his zeal for early diagnosis if he knows that adequate provision is made for the treatment of his patient in the event that his suspicions prove to have been well founded. In the event that no facilities exist for the hospitalization of the tuberculous he is likely to take the attitude that early diagnosis is of purely academic interest. To quote the author's analogy,—“supposing that neighboring surgeons would not operate on acute abdomens, one's zest for differentiating between perforated gastric ulcers and colic would be blunted, and one would fall too readily into the easy way of medicine which is—expectant treatment and guarded prognosis.”

The general practitioner occupies a position of great strategic importance in the control of tuberculosis. He brings the patient into the world. On him in most cases devolves the responsibility for the initial diagnosis of tuberculosis and “after the tumult and the shouting have ceased, the tuberculosis officer and the sanatorium physicians departed, he tends the patient for the rest of his life and eases his parting.”

The patient returns to him from the

sanatorium a changed man both physically and psychologically. Various things have happened. "First, he has come to accept the fact that he has tuberculosis and that it is a long complaint. Secondly, he has lived among other patients who are in the same plight. Thirdly, he has learned a lot about his complaint."

The general practitioner is now "the man on the spot." Yet much can be done to make his task easier and here are some of the ways in which the link between the general practitioner and the specialist (sanatorium physicians) may be strengthened.

"I consider it a blasphemous act for anybody to undermine whatever faith a patient may have in his doctor. For the patient, it is better to have faith in a mediocre doctor than a distrust of the best. For the average mediocre doctor it is far greater incentive to do good work and make himself worthy of the patient's unswerving (and often pathetic) belief in him. This is a matter in which tuberculosis officers, consultants and sanatorium physicians have the greatest power and where their closest cooperation is needed."

Secondly, a commission should be appointed to decide on post-sanatorium advice and treatment. The points which they consider of value should be embodied in a small printed pamphlet of instructions capable of alternate readings dependent on the mere stroke of a pen. It should be a simple matter to draw up such a set of instructions. If one copy be given to the patient on discharge, another to his doctor and another to the tuberculosis officer everybody would know where they were. In addition "I

should like to see the doctor receive a copy of the x-ray photographs as well as the usual statistics such as body weight, blood sedimentation, rales, etc., which he can continue to record should he feel so inclined." Could a general practitioner read chest X-ray plates? Speaking for his late self of general practice days, the author's answer is—"No, he couldn't, but he would if he were given a chance."

Lastly, let the tuberculosis officer meet the doctor periodically for a real consultation over their shared cases. Once every three months say, there could be set aside a tuberculosis afternoon when the tuberculosis officer would meet the general practitioner and their ambulant patients at the doctor's consulting room after which they would proceed together to the home-bound cases.

Such close cooperation would have in the author's opinion a most stimulating effect.

With it," he writes, "the alleged ignorance and carelessness of general practitioners could not exist. It is the sort of help I wanted and could not get. It is not an impossible demand for I know that in some localities it is in existence and works well. Could it not be made a universal practice?"

The campaign against tuberculosis requires a chain of cooperation the links of which should be equally strong. These links are those between the patient and the general practitioner and between the general practitioner and the tuberculosis specialist. Their respective responsibilities have been discussed by an author who has had extensive experience in both of the medical roles. His suggestions merit serious consideration.

Tuberculosis in Dollars and Cents

Penny-wise and fence-straddling policies of public authorities in attacking tuberculosis are resulting in needless waste of millions of dollars in terms of unnecessary deaths, preventable illness and disrupted homes. The Early Diagnosis Campaign, conducted nationally throughout the month of April by the National Tuberculosis Association and, in this State, by the Tuberculosis and Public Health Committee of the State Charities Aid Association and local committees, is intended primarily to bring acutely to the attention of the people the need for positive action in making further inroads against this disease.

Every thirty-four minutes a new case of

tuberculosis is reported in New York State but only once every 170 minutes is a case reported which holds real promise of recovery. In other words, the disease has progressed to the advanced stages in more than four out of five cases before proper medical care and supervision are provided. Every one and one-quarter hours, a person dies from this disease.

For more than thirty years, tuberculosis has been defined as a humane problem and as a public health problem. It is also an economic problem and must be faced as such.

The cost of tuberculosis to the family and to society can not be measured only in terms of the individual illness or demise. Tuberculosis leaves in its wake the seeds for other cases. By intimate contact in the home, in industry and otherwise, these seeds may

be cultivated sufficiently to cause destructive disease. It is estimated that each case costs society, directly or indirectly, at least \$5,000. At present there are in New York State approximately 45,000 persons suffering from tuberculosis—a liability in dollars and cents of more than \$225,000,000. These cold figures do not take into account the undermining influence of the disease on the home as the basic unit of society. The resultant individual and family handicaps can not in fairness be measured in dollars and cents. No statistician or economist has yet been able to determine fully the intangible losses imposed by pain and suffering.

Many people have been led into a sense of false security by the publicity accompanying the declining death rate from tuberculosis. Too frequently it is said that tuberculosis is no longer a serious problem. Despite the encouraging advances made, tuberculosis is still public health Enemy Number One in the most productive years of life. More vigorous methods of case-finding and diagnosis must be carried on among women between the ages of fifteen and thirty. It is in this age period that women make their greatest contribution in the establishment of homes and the rearing of families. Likewise, this merciless reaper of human lives takes its greatest toll among men between the ages of twenty-five and forty-five when they mean most to their dependents and to the industrial life of the country.

Why do we tolerate tuberculosis? Because too many people are still living in the horse and buggy days and have not seen fit to retire the horse to pasture and the buggy to a museum and use modern weapons in the control of the disease. The X-ray is one of the most important of those weapons.

Unfortunately, either because of indifference or ignorance, a sufficiently large proportion of the people do not utilize completely the available instruments of prevention and control. New York State may well be proud of the development of its anti-tuberculosis service. The distribution of chest clinics, dispensaries and tuberculosis hospitals is such that some facilities are available in every section of the State for early diagnosis and treatment. Particularly in those localities where the State Department of Health is providing these services, practicing physicians have participated unselfishly in the program. In the large cities, medical practitioners cooperate in direct proportion to the scientific leadership available at clinics or hospitals.

The discovery of early tuberculosis means early recovery in the vast majority of cases. Delay in diagnosis means long periods of treatment and, altogether too frequently, a fatal outcome. Of the chronic diseases, tuberculosis is one of the most amenable to treatment. The use of modern weapons both in diagnosis and treatment enhances the opportunity for a greater number of cures.

In upstate New York, the investment in tuberculosis hospitals represents a sum of more than \$25,000,000. The annual cost of administering these hospitals is \$6,000,000. At least a similar amount is spent in New York City. From comparison of this annual expenditure of about \$15,000,000 for tuberculosis hospital service with the sum of \$225,000,000 represented by 45,000 cases in this State, it is apparent first, that the tuberculosis problem is far from solved, second, that more hospital facilities should be provided, and, third, that more prompt and complete utilization of available facilities is urgently needed.

Beware of Water Hemlock—Borgia of Wild Plants

Water hemlock, one of the most poisonous of wild plants in the United States, probably has destroyed more human lives than all of our other toxic flowering plants combined. In springtime when children are ready to eat any succulent green that tempts them in their rambles over the countryside, the water hemlock (*Cicuta maculata* L.) is not only most alluring, but it is generally believed, most deadly.

Resembling closely its esteemed brethren, the carrot and parsnip, this black sheep of the parsley family lurks in swampy land throughout the eastern part of the country and is found to some extent as far west as the Rocky Mountains. Multi-branched and

tall, with lacy white flowers and dissected leaves, the whole plant is permeated with a fragrant oil that is most abundant in the spindle-shaped roots clustered at the base of the stem. It is these roots which are chiefly responsible for poisoning of human beings. The symptoms of hemlock poisoning are many, including violent contraction of muscles, dilated pupils, vomiting and diarrhea. Cases of suspected poisoning, from whatever source, should always be placed in the hands of a skilled physician. Never is medical care more urgently needed than when the *cicuta* is the cause of the illness.

Water hemlock travels under a number

of aliases, the most common being "cowbane," "snakeroot," "spotted hemlock," "spotted parsley," "snakeweed," "beaver poison," "musquash root" and "muskrat weed." It has a retinue of lawless wild plant followers that should be shunned by everyone, particularly children.

There is the poison hemlock (*Conium maculatum*) which may be distinguished



Courtesy State Museum

Water Hemlock

from the water hemlock by its very large, much compounded leaves and the fact that it prefers fairly dry ground in the neighborhood of towns while *cicuta* grows in wet places.

Many fatal cases of poisoning have been traced to the wild parsnip (*Pastinaca sativa* L.), a tall coarse-leaved plant of the same species as that under cultivation, which grows wild in waste places quite generally.

The potato family has several outlaw members, notably the thorn apples (*Datura stramonium* L. and *Datura tatula* L.) both stout, large-leaved, ill-smelling plants, producing enormous trumpet-like flowers and fruits bearing many dark seeds. The victims of the thorn apples are usually children who are poisoned by eating the pleasant-tasting seeds in the green capsules or by chewing the great blossoms.

Equally dangerous are the enticing black nightshade with its clusters of white flowers followed by black, round berries, and its close relative, the bitter sweet, a climbing plant with large clusters of red berries. The latter should not be confused with the woody bine, often called "bittersweet," with attractive orange-red fruit, commonly used as a winter decoration. The fruits of the buckthorn, poke, baneberry, English ivy and daphne are also to be avoided.

From this imposing but only partial array of man's plant enemies, it is plain that everyone should refrain from eating wild plants, no matter how pleasing to the eye, unless they are known to be harmless. Education of school children and others with respect to the identification of these plants and their poisonous properties is of the greatest importance. Finally, in cases of poisoning, a skilled physician should be called at once. The delay of an hour may mean death.—*Health News*, April 19, 1937

Lipoid Pneumonia

In recent years, largely as the result of commercial advertising, there has been an enormous increase in the use of various oily preparations for application to the nasal passages.

In infants such applications are not free from danger, for experience has shown that the oil may be drawn into the lung and give rise to a fatal pneumonia. For this reason most pediatric services now prohibit the use of oily substances in the nose of infants under two years of age.

Fatal cases of pneumonia caused by the aspiration of oily preparations into the lungs have been reported in American medical

literature since 1925. The number of cases of this form of pneumonia is undoubtedly far greater than the number of fatal cases reported in the literature. The condition is usually observed in children under two years of age, and especially in artificially-fed, poorly nourished infants, and in those with any difficulty in swallowing or breathing. Often there is a history of a nasal discharge, coughing spells, or asthmatic attacks, and a history of frequent instillations of oil into the nostrils.

The patients show the clinical signs and symptoms of a low grade pneumonia and examination with the x-ray usually shows

a shadow along the sternal border of the pulmonary fields. At autopsy the lungs show the reaction of the tissues to a foreign body and the results of a secondary invasion by bacteria. Large amounts of oil are often present in the lung.

Infants may recover from such an attack and general health may improve under proper management although a residual pneumonic process may persist indefinitely. Death usually results from a secondary pulmonary infection. The condition is now generally spoken of as "lipoid pneumonia."

With the increasing attention which physicians have given to lipoid pneumonia in recent years, it has been found that oily nasal drops are not the only agents which may cause this form of pneumonia in infants. Cod-liver oil and even cream have been involved in some of the cases reported. These cause a different reaction, usually an acute pneumonia. In other words the condition can also be brought about by oily substances given by mouth. Hence great care is necessary especially in the case of sick and debilitated infants and in those suffering from neurological conditions such as those caused by birth injuries. Mothers should be warned not to give cod-liver oil to a struggling rebellious infant, or to very feeble ones, for there is great danger of aspirating some of the oil into the lung.

Following are some excerpts from authoritative sources:

Dr Douglas Symmers—General Director of Laboratories, Bellevue Hospital—"The evidence is sufficiently strong to say that the indiscriminate introduction of oily substances into the nose should be stopped. It is a definite health problem."

Dr Paul Klemperer—Pathologist, Mt Sinai Hospital—"The condition is now being found with increasing frequency at autopsy. Occurs in adults as well as children. The condition constitutes a public health menace."

Dr Rustin McIntosh—Professor of Pediatrics, College of Physicians and Surgeons, Columbia University and Attending Pediatrician, Babies Hospital—"There is enough evidence to warrant an educational campaign against the use of oil in noses of infants up to two years of age. The use of nasal oil drops for this age group has been virtually abandoned in hospital and dispensary practice at the Columbia-Presbyterian Medical Center."

Dr Charles Hendee Smith—Professor of Pediatrics, University and Bellevue Medical College and Attending Pediatrician, Bellevue Hospital—"Nose drops should not

be used in feeble, marantic, sick or young infants, certainly not before the age of three months. Large amounts of oil should never be used. The same precautions should be taken in the administration of oil preparations by mouth. All nasal instillations should be given with the head in the inverted position."

Dr Bela Schick—Director of Pediatrics, Mt Sinai Hospital—"The condition is sufficiently frequent to prohibit the use of oils in the noses of infants."

Dr Sam Z. Levine—Professor of Pediatrics, Cornell University Medical College, and Pediatrician-in-Chief, New York Hospital—"The use of oil nose drops should not be permitted in debilitated or sick infants, or in infants suffering from neurological conditions such as birth injuries. I do not believe, however, that a general prohibition should be placed against the use of oil nose drops. Care should also be taken in the administration of oil preparations by mouth."

Dr Herman Schwarz—Director of Pediatrics, Beth Israel Hospital—"The use of oil drops in the noses of infants should be banned."

Dr Jerome Leopold—Attending Pediatrician, Lenox Hill Hospital—"Lipoid pneumonia has occurred frequently enough to prohibit the use of oil in the nose of infants up to one and one-half years of age."

Dr Charles A. Weymuller—Professor of Pediatrics, Long Island College of Medicine—"I feel very definitely that your campaign to point out the harmful effects of oily nose drops is a very praiseworthy one. We have seen a great many more lung disturbances due to oily irritations than ever before."

Dr Max Lederer—Director of Laboratories, Jewish Hospital of Brooklyn—"Oil medications should not be used in either infant, children or adults, unless there is an assurance that they will not enter the respiratory passages, and that the palatal reflex is intact. In the six cases that we have studied and reported in the literature, all were traceable to oil medication by way of the nose or mouth in individuals who were unable to swallow properly."

* * *

This bulletin was prepared for the information of the medical and nursing personnel of the Department of Health, City of New York, by direction of the Board of Health (April 1937)

CHARLES F. BOLDUAN, M.D.
Director, Bureau of Health Education

Diphtheria in New York City

Warning that a rise in incidence of diphtheria in New York City had occurred was sent out to all the physicians of that city by its Commissioner of Health, Dr John L. Rice on March 19. At that time he said:

The unusual prevalence of diphtheria at this time calls for concerted action on the part of all concerned so that all young children may be effectively immunized against this disease. For the first ten weeks of this year we have had 389 cases as against 338 in the corresponding

period of 1936. There have also been more deaths so far this year than in the first ten weeks of last year. Everything indicates that the disease will become more prevalent than in the last six years unless we have more immunizations.

In the period that has followed since that letter was received by the physicians in New York City, experience has proven that this prophecy was fully justified and that the advice given was timely.

Recommended Procedure for Diphtheria Immunization

Evidence is accumulating that immunization of children under nine months of age is less effective and probably less permanent than at nine months, further, that the one injection of alum toxoid does not confer as high a degree of immunity as two injections of plain toxoid.

In the immunization made in the various stations of the Department of Health the use of alum toxoid has been discontinued. We now advocate immunization of children at nine months of age and the administration of two doses of plain toxoid.

Dosage

For children under three years of age, two injections of toxoid (1 c.c. each) should be given at an interval of two weeks. Where a reaction results after the first injection, the second should be diminished in accordance with the degree of reaction ($\frac{1}{4}$ to $\frac{1}{2}$ c.c.).

For children between three and six years of age, two injections should be given at

an interval of two weeks, the first dose being $\frac{1}{2}$ c.c. and the second 1 c.c., if there is no reaction. If there is a reaction, the second dose should be the same as the first ($\frac{1}{2}$ c.c.). If this causes no reaction, a third injection (1 c.c.) may be administered. If the second injection of $\frac{1}{2}$ c.c. still causes a reaction, the dose for the third injection should be the same as the second injection ($\frac{1}{2}$ c.c.).

For individuals of six years and over, two injections should be given at the same interval (two weeks), the first dose being $\frac{1}{4}$ c.c. and the second dose 1 c.c., if there is no reaction. In case of a reaction, the second dose should be the same as the first ($\frac{1}{4}$ c.c.). If this causes no reaction, a third injection (1 c.c.) may be given. If the second injection of $\frac{1}{4}$ c.c. still causes a reaction, the dose for the third injection should be the same as the second ($\frac{1}{4}$ c.c.). In other cases, the dose should be somewhere between these two limits ($\frac{1}{4}$ and 1 c.c., depending upon the amount of reaction).

FOUR CENTS A DAY

If a doctor reads a New York paper and a local newspaper daily and a New York paper on Sundays,—these unusual luxuries cost him \$23.98 per year.

If a doctor smokes two ten cent cigars daily, his annual outlay for this little amenity is \$73.00. If instead, he consumes five packs of cigarettes a week, he will have paid out in twelve months \$39.00 for the little coffin nails, of which about \$16.00 goes to the federal government.

If he owns a 4,000 lb. car his registration costs him \$20, his liability insurance about \$60, his garage space at least another \$60, and fire, theft and collision insurance \$20 more,—an outlay of \$160 or more—

to say nothing of depreciation, whether he drives his car twenty-five miles or 25,000!

If perchance, five times a week he indulges himself with a snack of camembert and crackers before retiring the annual cost of such revelry may reach \$35.00.

Unless the doctor is totally bald, he probably spends more at the barber shop than for the support of his County Medical Society.

His County Medical Society dues cost him \$15.00 a year, \$0.04 (four cents) a day!

—L. D. R. in the *Westchester Medical Bulletin*

Medical News

Bronx County

THE BRONX COUNTY MEDICAL Society, at its meeting on April 21 listened to the following pathologic program a Arteriosclerotic Heart Disease, Louis R. Ferraro, M D , b Syphilitic Heart Disease, William Aronson, M D , c Rheumatic Heart Disease, Joseph Ehrlich, M D

Broome County

THE ANNUAL CLINICAL DAY program at Binghamton City Hospital was held on April 14 with medical men of southern and central New York arriving for operating room demonstrations and clinical conferences

General theme of the program was "Treatment of Diabetes" Principal speaker was Dr Elliott P Joslin, clinical professor of medicine at Harvard University Medical School and a leading authority on diabetes

Operating room clinics and medical discussions were conducted by Binghamton physicians during the day The program included ward inspections and x-ray demonstrations

The program was in charge of Jerome F Peck, superintendent, and a committee of physicians

The Broome County Medical Society held its monthly meeting at Phelps Hall in the evening in conjunction with the annual Hospital Clinic Day of the Binghamton City Hospital Dr Joslin, spoke on "The Treatment of Diabetes and Especially the Use of Protamine Insulin"

Chautauqua County

THE REGULAR SPRING MEETING of the Chautauqua County Medical Society was held on April 21, at Mayville

The meeting was preceded by a dinner, followed by a business meeting and scientific session Dr Samuel Sanes and Dr Frank Meyers of Buffalo, discussed the clinical and pathological aspects of jaundice.

Chemung County

AT THE MEETING OF the Chemung County Medical Society on March 31, at the Arnot Ogden Memorial Hospital, it was voted that the Society adopt the Metropolitan fee

schedule of the compensation commissioner as a minimum fee schedule for the members of the Society, take effect May 1 A committee was also appointed to revise the Society's fee schedule It was voted that in the hospital insurance plan proposed by local hospitals that anesthesia be included in the hospital insurance contract, that the practising surgeon be allowed to choose his own anesthetist and in case the anesthesia is given by a physician, he be compensated by the hospital, that the x-ray department of the hospitals be credited with the regular fee for x-rays done on people insured by the hospital insurance plan and that these fees be paid from the hospital insurance fund—Reported by Dr F S Hassett, Secretary

Chenango County

PNEUMONIA AND ITS VARIOUS phases was discussed at the quarterly dinner meeting of the Chenango County Medical Society in Norwich on April 1

Dr W H Mason, president of the Society, introduced three speakers, all connected with the Syracuse College of Medicine, Dr E D Chapman, Dr O W Mitchell, professor of public health, and Dr Chas D Post, professor of medicine

President Roosevelt's supreme court plan was condemned by the society in the adoption of a resolution by a unanimous vote

Columbia County

AN AUXILIARY TO THE Columbia County Medical Society was formed on March 31 at a meeting in Hudson, with an enrollment of forty members Mrs Henry Galster of Hudson was elected president After the meeting the Medical Society was host to the Auxiliary at a tea The Auxiliary held a luncheon-meeting at the Columbia Country Club on Tuesday, April 20 Plans for the coming year were discussed and a constitution and by-laws presented for the approval of the members

Erie County

DR. CHARLES GORDON HEYD, president of the American Medical Association and a graduate of the University of Buffalo, was a speaker at the 62d annual clinical day of the University's Medical Alumni Associa-

tion on April 17 Dr Hugh Cabot, of the Mayo Clinic, read a paper on "Pyelo-Nephritis"

DR. WILLIS G GREGORY, Professor of Pharmacy at the University of Buffalo School of Pharmacy since 1886 and Dean of the School from 1890 to 1936, died of cerebral hemorrhage at his home in Buffalo, March 20

Franklin County

DR E M JAMESON was elected president of the Saranac Lake Medical Society at the annual meeting on March 31 Dr Jameson succeeds Dr John R Steidl Other officers named were Dr Eric Richardson, vice-president and Dr Warriner Woodruff, secretary and treasurer

Herkimer County

THE HERKIMER COUNTY Medical Society met at the Mayfair Inn, Middleville-Herkimer highway, on April 13

An address on the "Group Hospital Plan," was given by H C Stephenson Four reels of motion pictures dealing with "Traumatic Surgery of the Extremities" were shown.

THE HERKIMER VILLAGE BOARD on April 13 decided to permit restricted parking spaces for all doctors in front of their offices, as in a number of other towns and cities

Kings County

THE MEDICAL SOCIETY of the County of Kings, at its meeting on April 20, had, as its scientific subject, "Intrathoracic Suppuration" (a) Discussed from the Medical Standpoint Edward N Packard, M.D, (b) Discussed from the Surgical Standpoint Pol N Coryllos, M.D, F.A.C.S

THE MEDICAL SOCIETY of Bay Ridge celebrated its "coming of age" with its 21st annual dinner dance on April 7 in the Hoster Bossert. About 200 attended.

THE ITALIAN MEDICAL SOCIETY of Brooklyn held its annual dinner and dance for the benefit of sick and indigent members on April 1 in the Hotel St. George

Madison County

MEMBERS OF THE AUXILIARY of the Madison County Medical Society gathered at Hotel Oneida on April 8 for the monthly dinner meeting, Mrs Robert L Crockett, presiding The group, which recently voted to sponsor the Cancer Drive, now being

organized in Madison County and Oneida, heard an interesting discussion of "Women Doctors" by Dr Lavinia R Davis

Nassau County

DR SPENCER T SNEDECOR, president of the New Jersey State Medical Society, spoke on methods of providing medical care for the under-privileged at a meeting of the Medical Society of Nassau County in the Bar Association building, Mineola, on March 30

New York County

A SYMPOSIUM ON CANCER was held at the International Medical Center, 135 E 55 St., New York City on April 14

THE 445TH REGULAR MEETING of The Society of Medical Jurisprudence, held at The New York Academy of Medicine Building, on April 12, had on its program "Preliminary Survey of 1000 Case Histories of Inmates of Elmira Reformatory" by René Breguet, M.D, Neuro Psychiatrist, Elmira Reformatory Discussion was opened by Amos T Baker, M.D, and John Kirkland Clark, Esq

Niagara County

DR HARRY R TRICK, F.A.C.S., was the speaker at a meeting of the Niagara County Medical Society at the Hotel Niagara on April 13 Dr Trick gave an evaluation of present-day methods of diagnosis, treatment and operative procedure for abdominal hernia

Oneida County

DR GEORGE MINER MACKENZIE and Dr A Graham Davis addressed the Oneida County Medical Society in Utica April 13 The former spoke on "The Treatment of Pneumonia from a Laboratory Standpoint" and the latter on "The Newer Treatments of Chorea"

Onondaga County

CONTINUANCE OF THE "WHAT'S NEW" programs of the Onondaga Medical Society and Syracuse Academy of Medicine has met with great favor At the Medical Society meeting on April 6, Dr A Clement Silverman spoke on "What's New About Scarlet Fever" Other papers were read by Dr J Ernest Delmonico and Dr A. N Curtiss, with Dr F S Wetherell and Dr Albert G Swift opening the discussions Dr Harry A. Steckel spoke on "What's

New About Dementia Praecox" before the academy members in session April 20 at the University Club Other speakers were Dr William E Ayling and Dr Nathan P Sears, with Dr H B Doust and Dr Donald Childs opening the discussions

Ontario County

THE ONTARIO COUNTY Medical Society met on April 15 at the Geneva General Hospital Speakers included Doctors M E Deuel, Robert F Doran and J A Gindling, and other members of the hospital staff

DR WILLIAM WEHR addressed the Geneva Academy of Medicine on April 15 at the Geneva Country Club

DR W C ELKNER, of the Clifton Springs Sanitarium and Clinic staff, was guest speaker on April 8 at the monthly meeting of the Canandaigua Medical Society Dr Harry M Smith was host Dinner was followed by Dr Elkner's paper on "Carcinoma of the Prostrate"

Oswego County

THE MEDICAL SOCIETY OF OSWEGO county met Wednesday evening, April 7 Guest speakers were Dr Richard S Farr, Syracuse, orthopedic surgeon to the University and Memorial Hospitals, and Dr Lee Hadley, roentgenologist of Memorial Hospital, Syracuse "Back Pain" was the subject discussed The symposium was illustrated by lantern slides and x-ray films

Queens County

UNDER THE AUSPICES of the committee of graduate education of the Medical Society of the County of Queens, Dr W Guernsey Frey spoke on "Eye Ground Studies for the General Practitioner" at the meeting of the Society on April 7 at the Society's building Dr Frey, who is a resident of Forest Hills, is an eye surgeon at the Manhattan Eye, Ear and Throat Hospital and ophthalmologist at St. John's, St. Luke's, the new Queens General and Misericordia Hospitals

"OLD TIMER'S NIGHT" of the Queens County Society will be celebrated on May 22 at the Society's building It will be an evening of entertainment intended to create a fund to redeem building loan bonds belonging to the estates of deceased subscribers At least one hundred prizes donated by local merchants and varying in retail value from \$5 to \$25 will be distrib-

uted to those subscribing The subscriber, for one dollar, will receive a booklet (which is also a ticket of admission) containing descriptions of the prizes There is no limit to the number of prizes for which each participant is eligible Together with the promise of adequate collation and dance music, the prospect of an enjoyable, and possibly profitable evening is assured everyone who attends

Rensselaer County

TWO PAPERS DEALING WITH tuberculosis were presented at the meeting of the Rensselaer County Medical Society on April 13 Dr Robert E Plunkett dealt with "The Diagnosis of Pulmonary Tuberculosis" and Dr J J Randall read a paper on "Collapse Therapy of Pulmonary Tuberculosis"

Richmond County

THE ANNUAL DINNER-MEETING of the Richmond County Medical Society took place on April 14 in the Fox Hills Country Club

St Lawrence County

THE COMMITTEE ON Public Health and Medical Education of the St Lawrence County Medical Society arranged spring lecture course starting on April 15 There were four lectures on the program as follows

April 15—Dr Edward C Hughes, Obstetrician, Memorial Hospital, Syracuse, "Toxemias of Pregnancy"

April 22—Dr Charles B F Gibbs, Physician General, Assistant Physician, Strong Memorial Hospital "Diabetes"

April 29—Dr Carroll Spaulding Wright, Professor Dermatology and Syphilology, Jefferson Medical College, Philadelphia, "Diagnosis and Treatment of Syphilis"

May 6—Dr Henry Hausman Ritter, Associate Traumatic Surgeon Postgraduate, Reconstruction Unit Postgraduate, Hospital Consultant Surgeon, St Luke's Newburgh, Long Beach and Passaic, "Back Injuries"

The lectures were held in the auditorium of the Hepburn Hospital

THE CITY MEDICAL SOCIETY of Ogdensburg held its regular meeting on April 7 Dinner was followed by a lecture by Dr Donald Tulloch on cardiac diseases An interesting demonstration was given in the uses of the cardiograph

Saratoga County

DR ARTHUR W JOHNSON, coroner for more than twenty years, was honored on April 7 at a testimonial dinner in the Mechanicville Masonic Temple by the Saratoga County Medical Society

Dr W S McClellan paid tribute to Dr Johnson for his fifty years in practice Dr William VanDoren presided and Dr E. McDonald Stanton read a paper on hernia The dinner was held after the society meeting

Schenectady County

DR CHARLES C DURYEE, of Schenectady, who died on March 18, was a past president of his county medical society and had been twice mayor of the city

Steuben County

DR M A PLACE was elected president of the Hornell Medical and Surgical Association at the annual meeting on April 7 at the Hornell Country Club Dr J J Yanick was named vice president and Dr W James MacFarland, secretary and treasurer

During the dinner, members presented Dr L M Kysor with a movie camera for his trip to Europe

Sullivan County

THE STATE DEPARTMENT OF HEALTH'S pneumonia control exhibit was taken to Monticello for a mass meeting April 8 sponsored by the Sullivan County Medical Society and the Tuberculosis and Public Health Association Dr Howard S Rogers, director of the State Bureau of Pneumonia Control, and Dr Frank Laidlaw, district state director of pneumonia, were among the principal speakers Dr Rogers spoke on April 7 at a meeting at Carmel sponsored by the Putnam County Medical Society for members of the profession

Tioga County

THE ANNUAL COURSE of lectures for members of the Tioga County Medical Society was as follows

March 24, Dr V P Mazzola, F A C S, "Puerperal Infection"

March 31, Dr F R Marzullo, F A C P, "Uremia, Its Symptoms and Its Management."

April 7, Dr G H Roberts, F A C P, "Recent Advances in Therapeutics"

April 14, Dr A F R Anderson, F A C P, "Newer Concepts of Peptic Ulcer and Its Modern Treatment."

April 21, Dr S S Lamm, "Neurological Conditions in Childhood"

Warren County

AT THE SEMI-ANNUAL DINNER MEETING of the Warren County Medical Society on April 14 in The Queensbury at Glens Falls Dr Eldridge H Campbell of Albany gave a lecture on "Early Diagnosis and Treatment of Brain Tumors," illustrated with lantern slides

DR SAMUEL A LEVINE of Boston, Mass., read a paper on "Some Pitfalls in the Diagnosis of Heart Disease" at a meeting of the Glens Falls Academy of Medicine on April 9

Washington County

THE MEDICAL SOCIETY of the County held its quarterly meeting on April 2 at Granville The program "Indications for Surgery and Indications for Radiation in the Modern Treatment of Cancer," Dr William J Hoffman, and "The Laboratory as a Diagnostic Aid in the Practice of Medicine," Dr Arthur W Wright.

DR CLIFFORD W SUMNER, of Granville, who died in March, was a past president of the Washington County Medical Society

Westchester County

MORE THAN SIXTY physicians have volunteered to set aside special office hours one day a week for the examination of pre-school children whose parents are unable to pay a fee, Dr John M Dill, chairman of the public health committee of the Yonkers Academy of Medicine, announces The number of volunteers is an increase of twenty over last year and does not include specialists who have promised to do free pre-school work in their own field More than 800 children were not reached last year, Dr Dill pointed out He said that doctors are "greatly interested" in having remedial defects found and corrected and to have toxoid administered before school opens

DR CHARLES SUMNER BENEDICT, of New Rochelle, who died in April, was a past president of the Westchester County Medical Society

Hospital News

Hospital Survey Urges Drastic Changes

THE HAPHAZARD DEVELOPMENT of institutions and facilities for the care of the sick in the metropolitan area is scathingly scored in the report of the Hospital Survey for New York, just made public. For two years the investigation has been probing into conditions in the 800 hospitals, institutions, and agencies for the sick in the five counties of New York City and adjacent counties in New York State, New Jersey, and Connecticut, having all told around 11,000,000 souls, with a prospect of 18,000,000 by 1960.

To remedy the waste and lost motion and misdirected effort now prevalent, the Survey urges the creation of a permanent planning group, to coordinate and harmonize the work of the hospitals, dispensaries, and other such agencies, and to bring order out of chaos. Dr. Haven Emerson, Director of the Survey, said on April 28 at a luncheon at the Hotel Pennsylvania:

"There has been nothing more ruthless in industry and commerce, more reckless of social morality, more rugged in its autocratic autonomy than the conduct of campaigns of individual institutions for this, that or the other utility for the sick.

"The remedy seems to us to be the development of a permanent representative, authoritative planning group so informed and made currently aware of the facts of each situation, and so independent of class, institutional or political loyalties that its judgment in all projects involving capital expenditures will be sought, accepted and respected."

"We recommend," he continued, "that no more general hospitals of less than 200 beds be built in New York City, or with rare exceptions anywhere in the metropolitan area, and that such small hospitals as are now used to poor advantage be merged with larger institutions, and that the number of such of the specialty hospitals as are relatively unoccupied be decreased through merger with general hospitals."

The survey group held, too, that only

those voluntary hospitals actually serving a public purpose should receive tax exemption.

"Several institutions at one time offering a substantial portion of their beds for the care of free patients and thus justifying a tax-exempt status now so limit their admissions to paying patients that it is doubtful if the State and city government should continue to include them in a privileged class," said Dr. Emerson. "Hospitals serving almost exclusively paying patients should have the status of proprietary (profit-making) hospitals even though the motive of the corporation is not wholly that of profit earning."

The survey group recommends, Dr. Emerson continued, that hospital authorities collaborate with their medical staffs to consider a means of providing some compensation for physicians serving the indigent. It urged, too, that "it seems only a policy of intelligence and justice to see that the non-professional personnel of hospitals be paid in full by salary, or by salary supplemented by part or full maintenance, at rates corresponding to those paid for similar work by non-philanthropic establishments in the same community."

Another recommendation, as reported by Dr. Emerson, urges the doubling of the number of nurses assigned to the care of the sick in their homes, this increase to be effective by 1940 at the latest. No other organized service for the sick costs the community and the patient so little for "such large returns in skill," said Dr. Emerson. Medical social service activities should be substantially expanded, he added.

There is no need, the survey showed, for an increase in beds for maternity cases or for children. More beds are needed, however, for mental cases, about 1,900 more beds for tuberculosis patients and 650 more beds for venereal disease cases. Additional cancer clinics should be organized, Dr. Emerson said, additional outpatient dental services should be set up and the city should provide insulin for indigent diabetics under the care of voluntary institutions.

Drama as an Emotional Cathartic

ADOLESCENT GIRLS in a psychiatric ward at Bellevue Hospital have been presenting dramatic entertainments every week for the last eight months under direction of the Community Drama Unit of the WPA Federal Theater Project. Dr Karl M Bowman, director of the hospital's psychiatric division, disclosed the other day

The experiment has proved so successful that Dr Goldwater gave permission to Dr Bowman and Dr Nathaniel Ross, who has supervised the work, to meet reporters and to describe their observations

The benefits of the project, they said, had been threefold. Enactment of plays induced in both actors and spectators the reaction which Aristotle, more than 2,000 years ago, declared to be the basic aim of the drama—namely "catharsis," or a purgation of the emotion through art, the project was of diagnostic value, for in writing original plays the patients had set forth the specific problems that were at the root of their own disorders, and participation in a common undertaking sped the "socializing process"

Dr Bowman said that some of the productions had been staged with astonishing skill. Recently the patients presented the balcony scene from "Romeo and Juliet." Juliet was enacted by a girl afflicted with a congenital mental disorder. Supposedly deficient in concentration and

memory, she nevertheless learned her part eagerly, spoke her lines without prompting and in her general interpretation showed a surprising degree of sensitivity and understanding. The role of Romeo was assumed by an overgrown girl of thirteen whose consuming desire to be a boy found an outlet in the work at hand.

Discussing the project as an aid to diagnosis, Dr Bowman said "In composing plays the girls give themselves away. Perhaps at times they manifest things which they don't even appreciate themselves. They show by their attitudes and behavior certain mental problems which have been very deep set, which you could not disclose by simply asking questions."

He then cited the case of a patient who had written a play about an automobile accident. In it the protagonist, a girl, causes her brother's death by diverting her father's attention while he is driving. The car swerves and crashes. All but the boy survive. The stricken mother at first berates her daughter for causing the accident, then forgives her, realizing that destiny rather than the girl was to blame. Struck by the curious plot, the psychiatrists drew the author gently into a revelation of how, at the age of eight, she had killed her four-year-old brother by throwing him out of a window. Her mother had never forgiven her—and that was the cause of her maladjustment.

Largest Supply of Radium is Here

WITH THE DELIVERY of another gram of radium, the New York City Department of Hospitals will have the largest single supply in the world. The additional gram will make the city owner of seven grams. In addition, the cancer division of the Department of Hospitals has five more grams which have been on loan for more than five years. The gram just purchased cost \$24,912.50, the lowest price on record. Five years ago the same amount of radium, George T Taylor, sales manager of the radium company, said, would have cost \$70,000. Lower production costs and exploitation of better sources of supply have decreased the cost of radium.

The new gram of radium will be used

at the Brooklyn Cancer Institute in Kings County Hospital. The institute already has prepared a special safe, lined inside with a four-inch thickness of lead, where the radium needles and tubes will be kept while not in use.

The city's radium purchase included fifty-eight platinum tubes filled with radium, ranging from five to fifty milligrams of the salt. A milligram is one-thousandth of a gram, and a gram of the salt amounts to about a thimble-full.

In addition, the gram of radium included 100 needles with two milligrams of salt each, and twenty-five needles with three milligrams.

Mr Taylor said that the trends in can-

cer treatment could be traced in part by the size of the so-called radium applicators, or containers

During the past ten years, he said, the size of the containers had been gradually decreasing because cancer specialists now

believe in imbedding radium needles and tubes in the cancerous tissue for a period ranging up to six days

The older method called for concentrated treatment with the needles imbedded for a period of twenty-four hours

Improvements

OF THE \$14,095,540 recently announced as allotted by the Public Works Administration in Washington, to non-Federal hospitals in New York City, \$4,252,650 went to municipal hospital improvements in Brooklyn and Queens, according to figures made public by Dr S S Goldwater, Commissioner of Hospitals

In disclosing the PWA allotment totals for his department in Brooklyn and Queens, Dr Goldwater explained that if urgent departmental expansion and improvement are to continue in the two boroughs, the Hospitals Department must receive the appropriations listed for it in the 1937 capital outlay budget

As pruned by Mayor La Guardia, the Hospitals Department's capital outlay budget includes \$2,447,000 for starting new hospital projects in Brooklyn and Queens between April 1, 1937, and March 31, 1938. These projects, when completed, are estimated to cost a total of \$7,457,000

Foremost on the Brooklyn-Queens list under the proposed capital outlay budget program is \$1,000,000 to start the new Triborough Hospital for tuberculosis patients, adjoining Queens General Hospital. This 500-bed institution, which would cost \$3,000,000, according to Dr Goldwater, is "planned to meet a need long recognized by the department and stressed as exceptionally urgent by the Department of Health and by civic and social agencies that are familiar with the tuberculosis problem"

Next comes \$750,000 to begin construction of a new hospital for chronic cases designed to replace several of the old buildings at Kings County Hospital. Each of the old buildings to be replaced, according to the commissioner, is a "recognized fire hazard" and all have been condemned repeatedly. The total cost of this unit has been put at \$2,750,000

Work would start on construction of the proposed psychopathic pavilion at Kings County Hospital under a \$500,000 authorization which Dr Goldwater is seeking in his

new capital outlay budget. Estimated to cost an eventual \$1,500,000, this unit, according to Dr Goldwater, would "relieve a distressing situation"

"This project," the commissioner explained, "calls for 300 new beds for psychopathic cases. A recent authoritative survey has demonstrated that 700 beds are needed in this division over and above the facilities that are now available"

. . .

A COMMISSIONER'S RESIDENCE and infirmary, to cost \$500,000, are to be added to the State Hospital at Yaphank

. . .

OVERCROWDING AT THE Greenpoint Hospital has roused the civic workers of Williamsburg to start agitation for a new hospital

. . .

FRIENDS OF THE Jewish Hospital of Brooklyn have given \$25,000 to renovate the maternity building

. . .

ELECTRIC MAGNETS to remove metal particles from eyeballs have been installed in St Peter's Hospital in Albany

. . .

THROUGH THE GENEROSITY of a number of friends, Huntington Hospital has added a fine new station wagon to its equipment

. . .

THE CLIFTON SPRINGS SANITARIUM has added apparatus for deep x-ray therapy and entire new equipment for diagnostic Roentgenography is being installed. Expenditures for these amount to \$13,000. Cash subscriptions and pledges from friends amounting to more than \$25,000 have been received toward retiring the mortgage on its property for the construction of its hospital building. The small balance due on the mortgage will be refinanced—Reported by Adrian S Taylor, M D, *Superintendent*

Newsy Notes

AS AN AFTERMATH OF THE fatal blaze in the Israel Zion Nurses Home, Brooklyn, the Kings County Grand Jury has recommended that all hospitals and nurses' homes in the borough have thorough fire inspections every month. The presentment read in part

"From our investigation of the disastrous fire which occurred on Jan 17, 1937, at the Nurses Home of the Israel Zion Hospital, resulting in loss of life, we believe that in the interest of public safety the attention of proper authorities should be called to the necessity of establishing routine periodic inspections for all hospitals and nurses' homes connected there with

"Evidence showed that periodic inspections of these facilities have not in the past been required. Due, however, to the great public interest that this catastrophic aroused, belated inspections were immediately instituted revealing many unsafe conditions

"Therefore, we urgently recommend that all such public and semi-public facilities in the county be inspected for violations of fire ordinances regularly once each month and that any failure to remove such violations be promptly referred to the Magistrates courts for appropriate legal action"

A TOTAL OF 254,897 New Yorkers are enrolled in the three-cents-a-day plan for hospital care, Karl Eilers, president of the Associated Hospital Service of New York reports to the board of directors. Of these, Mr Eilers said, 90,000 have subscribed through the family membership plan, started last fall. Frank Van Dyk executive director, said added impetus to enrollment, now three times what it was last May, at the end of the first year's operations, was given by the family plan, seven-cents-a-day inclusive for families subscribing by the pay roll deduction method. This plan insures husband wife and all unmarried children under nineteen years of age hospital care in any one of 240 member hospitals in the metropolitan area

THE ANNUAL HOSPITAL MEETING of the Syracuse Academy of Medicine was held on

Mar 16 at Syracuse Memorial Hospital. 'Hyperthyroidism in Childhood,' first of four parts of the program, included a case report by Dr Arthur B Raffi and a discussion by Dr George M Retan. Dr William A Groat led a discussion of a report on methods of bone marrow studies presented by Dr Ellery G Allen and Dr Tyree C Wyatt. A report of a case of "Xanthomatosis, the Schuller-Christian Disease," was given by Dr Edward J Wynkoop. Dr Lee A Hardley conducted the discussion

. . .

SUCCESS IN THE EFFORT to conserve child life alone will arrest the trend toward a stationary population figure in the United States, a biennial report of the New York Foundling Hospital asserts

"In this age of diminishing births," the report says, "the approach of the time of stationary population in the United States can only be stayed by the success of the pediatrician in conserving infant life"

Covering the operation of the hospital for 1934 and 1935 the report points to a death rate for the two years of fifteen children per 1,000 admissions

"At the time the hospital was founded," the report states, "the infant mortality rate was 250 per 1,000, and the foundling mortality was nearly 100 per cent. Today the death rate of babies under one year is forty-eight per 1,000 births, and ours is fifteen per 1,000 admissions, some of our children being over one year old when admitted"

Covering the years during and immediately following the worst of the depression, when there was a consequent lowered vitality among patients, the maternity department statistics show a death rate among mothers of 35 per 1,000 for 1934 and 15 per 1,000 for 1935, as compared with the national rate for the same years of twenty-six and twenty-three per 1,000 mothers, respectively

. . .

A DRIVE FOR BOOKS AND MAGAZINES to be sent to Grasslands Hospital has been opened in the Tarrytowns by the Women's Auxiliary of Spencer-Kelly Post American Legion

. . .

THE CHARITY EYE, EAR, and Throat

Hospital of Erie County gave a dinner on Feb 25 for Dr John Dodds Flagg for his forty-five years' service to the hospital, of which he is chief surgeon and executive medical officer. A newspaper notice remarks

"Dr John Dodds Flagg is only seventy-seven years old and has been in Buffalo only forty-nine years, but he has 115 years of gratuitous medical service for the people of this city to his credit.

"His services to Buffalo institutions and citizenry include

"Thirty years as physician and surgeon of the Sisters of St. Francis asylum

"Twenty years on the faculties of the Niagara University Medical school, when it was located in Buffalo, and the University of Buffalo Medical school

"Ten years as surgeon at the old Erie County hospital

"Five years as lecturer in ophthalmology to the nurses in the Erie County hospital

"Five years as lecturer in physiology to the nurses of the old Women's hospital

"All these services have been donated by Dr Flagg. Today he is connected only with the Charity Eye, Ear and Throat hospital"

The medical and nursing staff gave Dr Flagg a basket of forty-five roses, and the

entire personnel of the hospital gave him a purse of \$450 . . .

AN INTERESTING SUGGESTION appears in this letter to the *Journal of the AMA* from Dr W A McMillan, of Charleston, W Va

"Our hospital staff formed a luncheon club. We meet the same day each week at 12 30. The club is known as the A M A. Club. Three of the most interesting articles of the *Journal* are chosen by the chairman of our club. One of these articles is given to each man to digest and present a summary of the article. He is given five or six minutes to do this. The chairman of the club also in a five or six minute talk gives a review of the principal articles of the *Journal*. The result of this has met with favor in that every man feels that he is missing a great deal when he neglects reading his copy of *The Journal*. Especially do the men whose duty it is to give a digest of the articles get a great deal from the subject discussed"

. . .

DR FRANK H CLARK, former chief of the surgical staff and one of the founders of Bushwick Hospital, Brooklyn, died on March 3 in Prospect Heights Hospital, Brooklyn, after a three-week illness. He was seventy-five.

At the Helm

The following hospital officials have been elected

DR. JAMES C WALSH, to be superintendent of the Nassau County Sanatorium at Farmingdale

LEONARD A LUBBOCK, to be Superintendent of Faxton Hospital at Utica

HERMAN RINGE, to be President of the Wyckoff Heights Hospital

FRANK N CLINTON, to be President of the Peekskill Hospital

MISS LAURA OTT, to be Superintendent of the Tioga General Hospital at Waverly

MISS JUNE MOE, to be Superintendent of the new Oneida City Hospital

DR. CHARLES D PARFITT, to be chief physician at Loomis Sanatorium at Ellenville

SAMUEL ROFFMAN, to be President of the Hebrew Hospital Association at Monticello . . .

DR RICHARD H BENNETT, senior attend-

ing physician of the Brooklyn Home for Consumptives, has been appointed medical director, to succeed the late Dr Luther F Warren. Mrs Oscar W Swift was re-elected president of the board for her seventh consecutive term

. . .

G BEEKMAN HOPPIN, of Oyster Bay, is the new president of the Nassau Hospital association. Mr Hoppin has been an active director of the corporation which conducts the Nassau Hospital in Mineola for several years. He is also a director of the New York Hospital

. . .

NATHAN S JONAS has been reelected president of the Brooklyn Jewish Hospital

. . .

EDWARD MOORE ROBINSON has been elected president of Knickerbocker Hospital, New York City. He succeeds William B Symmes Jr, who has been president five years

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Malpractice—Requirement of Expert Testimony to Establish Cause

An interesting decision was handed down very recently in one of the Mid-Western States which resulted in the exoneration of a physician of charges of malpractice in connection with the treatment of a difficult fracture case*. The action was one instituted by a patient charging negligent treatment by two physicians from whom he sought to recover the sum of \$40,000 as damages.

The case arose out of the treatment of certain injuries which the plaintiff, one P sustained when he was involved in an automobile accident. The patient was taken the day of his injuries to a hospital where he came under the care of a Dr R, a general surgeon. X-rays promptly taken revealed a compound comminuted fracture of the right femur about 2½ inches above the knee joint, and a compound comminuted fracture of the tibia and fibula of the same leg a similar distance below the joint. Dr R, assisted by a Dr H promptly informed P of the severity of his injuries and told him that they would attempt to save the leg if possible.

Due to the fact that the fractures were compound, an attempt was promptly made to get the bones in as good alignment as possible, and to apply immobilizing agents, but no operation was performed at the time, on account of the danger of infection. It was decided by the doctors that the treatment required included the necessity of a metal plate to hold the fragments in position.

Five days later R. and H. operated and applied a Lane plate to the fractured femur, fastening it with five half inch screws. A cigarette drain was used in closing the wound, and a splint was applied to the leg and a Buck's extension applied. According to the testimony upon the trial, after the operation, an eight-inch board, with "cotton and other stuff" on it, was placed under the leg from the heel to the hip, with foot boards nailed to the board forming a box. The leg was taped in this box. The patient complained of pain caused by the box when his leg started to swell a few days after the operation. An infection developed in the wound above the knee with a dis-

charge of pus which continued for some time.

It appears that about ten days after the operation there was a bed pan accident. In some manner while the patient was using a bed pan, it slipped, and according to P he was caused to fall to the bed. Upon the trial he claimed that at that time the leg "popped, jumped and hurt so that it nearly threw me into spasms, my leg jumped and jerked and hurt so badly that I told the nurse that my leg was hurt badly, that the plate had come off or that I had broken my leg over, I didn't know what had happened." According to the patient Dr R was told of the happening the next morning but he administered no treatment. According to P while he remained in the hospital the two doctors saw him very seldom. Dr R, however, testified upon the trial that he saw the patient practically during the entire period of a month that he remained in the hospital. During that time, according to R, he made numerous changes and adjustments in the apparatus, and at various times dressed the injuries. When the patient left the hospital, the injured limb was still in the fracture box, and according to R the patient left the hospital against his advice and without his consent.

When P left the hospital he was taken to his home by ambulance. Dr H was called in two days later, and removed the box. Dr H was told by P at the time that R. had authorized its removal, although R. insisted he had given no such instructions. From that time on P had little or no medical attention. According to both doctors, when they last saw the plaintiff his legs were of equal length.

When P appeared in court upon the trial, his injured leg was three inches shorter than the other. He told of remaining in bed for a couple of months and of gradually getting up in a chair, and that about four months after the injury he began walking with the aid of crutches. X-rays taken before the trial showed that the screws of the Lane plate had given way, and that the plate had loosened, with over-lapping of the fragments of the femur.

The plaintiff conceded upon the trial that the operation had been skillfully and properly performed, but claimed that the

* Pedigo v. Roseberry, 102 S W (2nd) 600

fracture board had been improperly set up so as to cause unnecessary pain, and that the bed pan accident had thrown the fragments out of alignment, and dislodged the Lane plate causing a condition which the defendants R. and H. failed to correct while they cared for him. He claimed that the said incident led to his final resulting deformity and that consequently defendants were responsible for his condition.

Upon the trial various physicians who testified were all in agreement that they could not from the late x-rays determine when the Lane plate had become loosened, which fact developed into the chief point in the case.

The trial of the action resulted in a jury verdict in favor of the defendants, but the trial Court ordered a new trial. From that order the two physicians appealed, and the Appellate Court finally directed a reinstatement of the verdict of no cause of action.

In the course of a well-considered opinion the Appellate Court said:

It was tried on the theory that the issue of negligence vel non revolved around the degree of care and skill ordinarily possessed and exercised by physicians and surgeons in good standing in Springfield and similar localities in the treatment of a human leg for a compound comminuted oblique fracture of the femur and a compound comminuted fracture of the tibia and fibula under all the attending facts and circumstances detailed in evidence. One of the functions of the knee is the greater freedom of motion of the leg and motion of the leg is, in part, the result of the action of the muscles on the bones of the leg. With the bones of the leg fractured a short distance above and below the knee the contraction of the muscles would not be toward the alignment of the bone fragments. Respondent founds no claim on the existence of infection, which, we understand, may occur irrespective of the skill and care exercised in treating an injury of the nature of respondent's. Respondent's injuries presented nonvisible internal physical conditions, and the physicians and surgeons testifying in the case as experts not only relied upon the history of the case, their observation and examination of his condition, but based their testimony largely on his condition as disclosed by the x-rays. Laymen may readily understand the need of stabilizing supports to maintain the proper alignment of a stick broken into three fragments, one of the breaks being oblique, if force be exerted against either fragment. The problem presented to appellants, however, must have been somewhat unusual, complicated, technical and difficult even for those versed in the science and art of medicine and surgery, for two practicing physicians who were witnesses did not testify as "experts" on the ultimate fact. The litigants treated the issue as one not within the experience and knowledge common to mankind. So, under all the facts and cir-

cumstances of record in the instant case, whether or not, on one of the issues, a fracture board paining respondent at his hip should have been removed to relieve the pain within a few days after the performance of the admittedly successful surgical operation at the possible sacrifice of the successful results theretofore secured and the risk of further complications, or whether or not, in the other issue, respondent's fall from a bed pan to a mattress ten or twelve days after the operation loosened the Lane bone plate and refractured his femur or disaligned its fragments and the deformed condition of said leg as disclosed by x-rays taken more than a year thereafter was the result of said fall and subsequent improper medical and surgical treatment and attention or the removal of immobilization agents and the pull of the muscles against the bone fragments or the premature activity and use of the leg by respondent were, we think, matters to be determined from the testimony of witnesses possessing the necessary experimental qualifications acquired through study, training and experience on the subject-matter and not from the testimony of the ordinary layman.

If laymen are not to be guided on issues requiring peculiar and thorough special training in a science or art beyond the experience and knowledge common to mankind by witnesses possessing the necessary testimonial qualifications, juries will be cast into a river of doubt and must establish an arbitrary standard of their own founded upon conjecture and surmise in their effort to reach certain and sure ground. Juries should not be thus turned loose and privileged to say, perchance, the method of treating an injury of the nature here involved was negligent notwithstanding, for instance, the uncontroverted competent testimony establishing that the uniformly adopted practice of the most skillful surgeons had been followed. Notwithstanding the prerogative of practicing lawyers, the general public, no doubt considers the members of the judiciary competent to observe accurately, reason correctly and report truly on intricate and involved legal issues, but would not place such confidence in their testimonial qualifications on an issue involving the intricacies of, for instance, television, Einstein's theory of relativity etc. Nor should a jury of laymen be permitted to establish by laical conjecture and surmise the degree of care and skill exacted of a practicing lawyer in the handling of intricate and involved legal issues. On litigated legal issues both litigants cannot prevail. Upon such subjects experience teaches us that reliance must be placed in those qualified and skilled in the science or art involved.

We find no evidence of record from which it might be inferred that proper treatment called for the removal of the fracture board to relieve the pain at respondent's hip. And, aside from other possible reasons, all that the evidence disclosed with reference to the cause of the crippled condition of respondent's leg was that it might have resulted from one or more of several causes, and that it was caused by any negligence of appellants was not removed from the realm of conjecture and surmise.

Across the Desk

"Sick, Broke, and Footloose"

THAT IS THE DESPERATE CONDITION, it seems, of thousands of victims of tuberculosis who have left their homes and found their way, on foot, on brakerods, or in ramshackle automobiles, to the States of the Southwest, where they form a big problem. No exact census of this sad and wandering army is possible, of course, but rough estimates figure it at from one to five thousand. Many are accompanied by their wives, or husbands, and by groups of ill-clad and half-starved children. By day they straggle along the highway, and by night they pause in jungles, shacks, or cheap flophouses.

They are more than a pitiful horde of the ill—they are a peril to all they meet, for each one is a prolific sower of the seed that causes tuberculosis, and even the most careful and respectable citizen cannot avoid contact with them at the filling station, restaurant, tourist camp and lodging house. They have lost claim on the home towns they have deserted and are strangers in the States where they are seeking health, so that no one is under any obligation to feed them, shelter them, nurse them, or bury them. They have disregarded the advice of doctors and health officers to "get well at home," and have set off in a fatuous hope that merely inhaling the air of the Southwest will heal diseased lung tissues, without the needed rest, food and medical care they could better have had at home.

Halting the Perilous Army

Mistaken and even blameable as they may be, however, there they are. Something must be done for a situation so full of tragedy and danger, and we are told that something has been done and more will be done. Dr. H. E. Kleinschmidt, of New York City, Director of Health Education of the National Tuberculosis Association informs us in *The Journal-Lancet*, of Minneapolis, that the Emergency Relief Administration started three years ago to set up transient shelters in an effort to "freeze" the army of homeless wanderers. In Nogales, Arizona, an old army barrack used during the Mexican border dispute was utilized. Doctors and nurses

were brought in and soon "tuberculosis units" were running full blast.

In spite of makeshift equipment and labor drawn from transients not too ill to work, we are assured that these units performed a heroic and creditable service. Some of them were almost completely self-contained, they sheltered patients, maintained a farm, killed and dressed their own beef, manufactured crude coffins and buried their dead. Social workers investigated each case, returned some to their homes, placed the families of others in shelters, and helped solve individual problems.

Best of all, remarks Dr. Kleinschmidt, some five hundred patients known to have communicable tuberculosis were "taken out of circulation," so to speak, and given at least the first essentials for recovery—rest in bed and nourishing food—at a cost of less than a dollar a day per patient! Perhaps no relief money was ever better spent, he thinks, from a social viewpoint.

Consternation in Camp

Consternation struck the camps, however, when word arrived last fall that the time had come for the Federal Government to liquidate its transient service. There was no hope of transferring the activity to state or local budgets. Would the sick be turned out into the desert?

By good fortune the fine work of the units attracted the favorable attention of WPA officials, who found they had a small unexpended fund, and a temporary stay of the threatened collapse was arranged. No new patients, however, could be taken in.

That seems to be the present situation, but happily it is not as bad as it sounds, for such powerful agencies as the U. S. Public Health Service, the National Tuberculosis Association, the American Public Welfare Association, the National Committee on Care of Transient and Homeless, and the Continuing Committee of the Interstate Conference on Transients and Settlement Laws are interested and giving their attention to it. That insures that something will be done.

Meanwhile, there is a very practical thing

that everyone can do, and that is to spread the gospel that it is far better for the victim of tuberculosis to stay in his home community, where he has his friends and relatives and his family doctor to aid him, than to cut loose from all these ties and become a wanderer in a strange and inhospitable land. The sole idea that has sent these miserable thousands on their mistaken quest is that some magic in the air of the South-

west will bring them renewed life. Give them instead the truth that home is the best place for them, tell it to them by radio, by "health talks" in schools, in public forums, in the press, and in private counsel and casual conversation, till it is driven home firmly into the public mind, and then the stream of pallid health-seekers will never start, it will dry up at its source, and the problem will solve itself.

"A Good Name is Rather to be Chosen Than Great Riches"

THE MOST PRECIOUS TREASURE of the medical profession is its good name. The entire Code of Ethics is built upon it, and it is what distinguishes the true physician from the charlatan. So it is no wonder that swindlers and fakers are busy all the time trying to buy, beg or borrow some of the good name to dress up and rig out their humbuggery and sham.

Their latest try is reported from Indiana, related in the *Journal of the Indiana State Medical Association*. It appears that for several months Indiana doctors have been receiving cards offering them a weekly wage of \$25, plus commissions, for their services. The fishing was apparently not very good, so the bait was raised to \$40. These offers naturally aroused curiosity, and investigation revealed that the cards were sent out by a chain store optical outfit, which hoped to prosper by using the names of physicians in good standing.

We are told what happened to one doctor who fell for the scheme. He was informed that his duties would consist of making "manifest" refractions, or refractions in which no cycloplegic is used, and that he would receive so much for each re-

fraction. It was further suggested that he sign the lease for the offices!

Things soon began to happen. First the Better Business Bureau of the city smelled a rat. Then an enterprising newspaper sent a reporter over to have his eyes examined, and the Bureau and the reporter together began to raise merry hades. As a final touch, a representative of the Indiana State Board of Medical Registration and Examination paid a call and gave the doctor a taste of tabasco to the effect that a licensed physician who lent his professional self to an unlicensed practitioner might find his Indiana standing in jeopardy. The result was that the budding refractionist immediately returned to his native heath, convinced that he was definitely through with such a game. Unfortunately the game was not through with him, however, for his reputation is under a cloud and he will always realize the truth of Shakespeare's saying that "he that filches from me my good name makes me poor indeed."

The jig is up for the chain store fakers in Indiana, and their only recourse will be to try new territory. Will it be New York State?

The Safest Automobile Drivers

WHO ARE THE SAFEST automobile drivers? The deaf, dumb, and blind. No official statement has been issued to this effect, but it is a fact that we see no news items in the papers about accidents to cars driven by deaf, dumb, and blind people. And why? Because they are the most careful and cautious people in the world. They have sense enough not to try to drive cars, so they have no accidents. The blind, too, have the brains to keep away from the steering wheel, and they have no wrecks. Next on the safety list are the deaf, and now we have the official state-

ments to clinch the theory put forward above. Any readers who have been sniffing or snorting at it as something sophomoric emanating from a too youthful mind can now swallow their sniffs and snorts and learn something.

True, it is only natural to think that drivers with impaired sight or hearing are not safe drivers, but actual experience shows, oddly enough, that when the hearing is poor, the driving is good. And the reason is that a deaf driver is an extra-careful driver. A statement from the Keystone Au-

ACROSS THE DESK

May 15, 1937]

tomobile Association of Philadelphia says that "Statistics of the Pennsylvania Department of Highways revealed that deaf drivers are the safest of all classes." A communication, too, from the Volta Bureau, the central organization for the deaf, observes

In a good many states legislation to prevent the deaf from driving automobiles has been projected at different times, but in every instance a real study of the actual facts has convinced the authorities that the deaf were not only equal to hearing persons in the safety of their driving, but in many instances, far superior. The Commissioner of Motor Vehicles in the City of Boston has repeatedly gone on record as stating that the deaf were freer from accidents than any other group of the driving public. This opinion has been echoed by authorities in other places, and has been expressed very emphatically by the Conference of Executives of Schools for the Deaf, a body of men with normal hearing who have had long and close association with the deaf and know their capabilities and limitations

No "Back Seat" Driving

These interesting statements are con-

tained in an address given by Dr Douglas Macfarlan of Philadelphia, before the section on the Eye, Ear, Nose, and Throat at the Annual Meeting of the Medical Society of New Jersey. He explains that the reason why "the deaf are really safe drivers" is that "they are cautious and on the alert, because they know the risk they are taking." Deafness, he adds, "means often less distraction,—the back seat driver cannot disturb a deaf man, nor can squabbling children,—there is no interruption from casual conversation. The radio cannot be 'on' to the deaf man."

And as a clincher Dr Macfarlan quotes this flat statement by Frank A Goodwin, Registrar of Motor Vehicles of Massachusetts

"In all of our experience since the Registry of Motor Vehicles was established, there has never been an accident case on record in which a deaf man has figured"

And then there are the "dumb" drivers. The roads are full, infested, in fact, with one species of this genus, and perhaps the less said about them the better

BLUE BABIES"

That is the title of a short, crisp, significant article by a Detroit doctor who sent it in to the *Detroit Medical News* with the stipulation that his name be not mentioned. And the editor thought it so "provocative and very good" that he surrendered his editorial page to it. It goes like this

The modern mothers have put their obstetricians on the spot. In attempting to avoid the pains of labor, many of these mothers have forced the doctor to look more to the mother's comfort than to the baby's welfare. The drug medication employed today in many hospitals—the use of various barbiturates, hyoscine or nitrous oxide anesthesia in sufficient quantities to blot out memory of labor pains—is not without its dangers because of the high attendant incidence of "blue babies"

Formerly the doctor was greatly concerned if he brought a blue baby into the world. He wanted to see his babies pink and squalling as soon as they were born. With the heavy drug medication in use today, however, the majority of these babies are born blue and have to be resuscitated

A blue baby is one whose body tissues are being deprived of an adequate amount of oxygen. The chief danger to the new born infant of such a lack of oxygen is a cerebral as-

phyxia with consequent degeneration of brain cells. In cerebral asphyxia from whatever cause there may occur degenerative brain changes which the neuropathologist readily recognizes if he is able to examine the brain tissue microscopically. In case of survival this brain damage secondary to asphyxia may manifest itself in various ways—from transient twitchings in the milder forms to continued epileptiform seizures, spasticity or mental retardation in the more severe types. It is of course obvious that relatively few of the babies that are born blue suffer these serious sequelae. However, it is only fair that the expectant mother who asks for complete analgesia and amnesia in childbirth should realize some of the hazards to her child in obtaining that state. Because natural labor is so retarded by the drug medication in vogue there has been a tremendous increase in the number of cases where some form of operative interference is necessary to deliver the child. Cesarean sections, forceps or version deliveries are necessary in one-third to one-half of the cases in private hospital practice. A few years ago such a percentage of interference with the normal process of labor was unheard of!

If the mother of today wants to be delivered entirely without pain, she should at least be acquainted with the dangers so that she can weigh her own comfort against the hazards to her child born a "blue baby"

that everyone can do, and that is to spread the gospel that it is far better for the victim of tuberculosis to stay in his home community, where he has his friends and relatives and his family doctor to aid him, than to cut loose from all these ties and become a wanderer in a strange and inhospitable land. The sole idea that has sent these miserable thousands on their mistaken quest is that some magic in the air of the South-

west will bring them renewed life. Give them instead the truth that home is the best place for them, tell it to them by radio, by "health talks" in schools, in public forums, in the press, and in private counsel and casual conversation, till it is driven home firmly into the public mind, and then the stream of pallid health-seekers will never start, it will dry up at its source, and the problem will solve itself.

"A Good Name is Rather to be Chosen Than Great Riches"

THE MOST PRECIOUS TREASURE of the medical profession is its good name. The entire Code of Ethics is built upon it, and it is what distinguishes the true physician from the charlatan. So it is no wonder that swindlers and fakers are busy all the time trying to buy, beg or borrow some of the good name to dress up and rig out their humbuggery and sham.

Their latest try is reported from Indiana, related in the *Journal of the Indiana State Medical Association*. It appears that for several months Indiana doctors have been receiving cards offering them a weekly wage of \$25, plus commissions, for their services. The fishing was apparently not very good, so the bait was raised to \$40. These offers naturally aroused curiosity, and investigation revealed that the cards were sent out by a chain store optical outfit, which hoped to prosper by using the names of physicians in good standing.

We are told what happened to one doctor who fell for the scheme. He was informed that his duties would consist of making "manifest" refractions, or refractions in which no cycloplegic is used, and that he would receive so much for each re-

fraction. It was further suggested that he sign the lease for the offices!

Things soon began to happen. First the Better Business Bureau of the city smelled a rat. Then an enterprising newspaper sent a reporter over to have his eyes examined, and the Bureau and the reporter together began to raise merry hades. As a final touch, a representative of the Indiana State Board of Medical Registration and Examination paid a call and gave the doctor a taste of tabasco to the effect that a licensed physician who lent his professional self to an unlicensed practitioner might find his Indiana standing in jeopardy. The result was that the budding refractionist immediately returned to his native heath, convinced that he was definitely through with such a game. Unfortunately the game was not through with him, however, for his reputation is under a cloud and he will always realize the truth of Shakespeare's saying that "he that filches from me my good name makes me poor indeed."

The jig is up for the chain store fakers in Indiana, and their only recourse will be to try new territory. Will it be New York State?

The Safest Automobile Drivers

WHO ARE THE SAFEST automobile drivers? The deaf, dumb, and blind. No official statement has been issued to this effect, but it is a fact that we see no news items in the papers about accidents to cars driven by deaf, dumb, and blind people. And why? Because they are the most careful and cautious people in the world. They have sense enough not to try to drive cars, so they have no accidents. The blind, too, have the brains to keep away from the steering wheel, and they have no wrecks. Next on the safety list are the deaf, and now we have the official state-

ments to clinch the theory put forward above. Any readers who have been sniffing or snorting at it as something sophomoric emanating from a too youthful mind can now swallow their sniffs and snorts and learn something.

True, it is only natural to think that drivers with impaired sight or hearing are not safe drivers, but actual experience shows, oddly enough, that when the hearing is poor, the driving is good. And the reason is that a deaf driver is an extra-careful driver. A statement from the Keystone Au-

propagating in the intestinal tract and spreading by the ingestion of excreta was written long before the advent of the modern bacteriological discoveries which proved his ideas fundamentally true. He arrived at his conclusions only indirectly by the most careful study of the epidemiological data available, arranged and analyzed in such a way that, as Wade Hampton Frost has said, it is a "nearly perfect model of epidemiological study and one which should be read once as a story of exploration, many times as a lesson in epidemiology."

In the paper on "Continuous Molecular Changes," some of the broad principles concerned in the dissemination and prophylaxis of epidemic diseases are discussed. The opinions expressed on the mode of dissemination of measles, influenza, typhoid fever, and smallpox, are quite in accord with modern knowledge.

The Commonwealth Fund has wisely chosen these important papers of Dr. Snow for reprinting and the publishers deserve commendation for their skilful work in reproducing this masterpiece of epidemiological study in such an attractively bound and well printed volume.

JOSEPH C. REGAN

Recent Advances in Allergy (Asthma, Hay Fever, Eczema, Migraine, etc.) By George W. Bray, M.R.C.P. Third Edition. Octavo of 517 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., 1937. Cloth, \$5.00.

This third edition of Dr. Bray's book is a summary of results of recent research, in which nearly 3000 selected references have been collected. There are twenty-eight chapters, dealing with present known and proved phases of this much confused topic, in which the author either refutes or confirms conflicting views from his own extensive experience as a result of the intensive study of some 1000 allergic children.

Each chapter is thoroughly condensed and brought up to date. The reader does not have to wade through superfluous verbiage to get at the subject matter. Chapters on cutaneous, drug and nasal allergy, as well as on the psychological and nasal factors in allergy, are clean-cut, concise, and clear. It also contains new elimination diets and physical exercises with new references to agranulocytic angina, parotid swellings, acne vulgaris and allergy to yeasts.

This book provides, in a handy and inexpensive form, a resume of our present state of knowledge and the trend of modern research in allergy in general and its individual manifestations in particular.

This is an enjoyable book to study and would be a useful addition to any physician's armamentarium.

THOMAS B. WOOD

A System of Clinical Medicine (Dealing with the Diagnosis, Prognosis, and Treatment of Disease for Students and Practitioners) by Thomas Dixon Savill, M.D. Edited by Agnes Savill, M.D. and E. C. Warner, M.D. Tenth edition. Octavo of 1114 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$9.00.

This edition as the preceding ones, deals with the study of disease, the basic principle being an attempt to discover the morbid cause in operation from symptoms presented by the patient. This makes the work exceedingly valuable to practitioners of medicine. To this tenth edition has been added descriptions of the Laurence-Moon-Biedl and Simmonds' syndromes, Pick's disease, Von Gierke's disease, Lederer's and Sickle cell anemias and much other new matter. There are new sections on bronchoscopy, oesophagoscopy, endocrine factors in the menstrual cycle, the autonomic system, and the hypothalamus, the cerebral ventricles, and cerebral angiography. All other subjects have been brought up to date.

This is almost a system of clinical medicine, and should be owned by every physician.

CHARLES SHOOKHOFF

Textbook of Medicine By Various Authors. Edited by J. J. Conynbeare, M.D. Third edition. Octavo of 1027 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$7.00.

This is a book of medium size which covers the general field of medicine including diseases of the nervous system and of the skin, and is a useful book for quick reference. There are fifteen English contributors. In this edition there is a new section on renal diseases and the sections on anemia, diabetes mellitus and the pituitary gland have been rewritten. There is a new article on coronary occlusion and a revision of many others.

WILLIAM E. MCCOLLOM

Approaching Motherhood Questions and Answers of Maternity By George L. Brodhead, M.D. Fourth Revised Edition. Duodecimo of 196 pages. New York, Paul B. Hoeber, Inc., 1936. Cloth, \$1.50.

This is an admirable little book for the expectant mother. Quite different from the usual little book of this sort, it is out of the ordinary in its simplicity. In the form of

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Nostrums and Quackery and Pseudo-Medicine By Arthur J. Cramp, M.D. Volume III Octavo of 232 pages, illustrated Chicago, American Medical Association, 1936 Cloth, \$1.50

Original Papers of Richard Bright on Renal Disease Edited by A. Arnold Osman, F.R.C.P. Octavo of 172 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$7.25

The Diagnosis and Treatment of Chronic Diseases of the Respiratory Tract. With Especial Reference to the Lesions of the Trachea, Bronchi, Lungs, Pleura and Diaphragm By Elmer H. Funk, M.D. Revised by Burgess Gordon, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 618 pages, illustrated New York, Oxford University Press, 1936 Cloth, \$8.00

The Diagnosis and Treatment of Pneumonia By Campbell P. Howard, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 373 pages New York, Oxford University Press, 1936 Cloth, \$6.50

The Life and Convictions of William Sydney Thayer Physician By Edith Gittings Reid Octavo of 243 pages New York, Oxford University Press, 1936 Cloth, \$2.50

Home Care of the Mental Patient. By Arie Querido 16mo of 93 pages New York, Oxford University Press, 1936 Cloth, \$1.00

The Physiological Basis of Medical Practice A University of Toronto Text in Applied Physiology By Charles H. Best, M.D. & Norman B. Taylor, M.D. Octavo of 1684 pages, illustrated Baltimore, William Wood & Company, 1937 Cloth \$10.00

Medical Morals and Manners By Hubert A. Royster, M.D. Octavo of 333 pages North Carolina, University of North Carolina Press, 1937 Cloth, \$2.50

Maternity and Post-Operative Exercises By Margaret Morris, C.S.M.M.G. Octavo of 152 pages, illustrated New York, Oxford University Press, 1936 Cloth, \$2.00

Baby Epicure Appetizing Dishes for Children and Invalids By Elena Gildersleeve Duodecimo of 141 pages New York, E. P. Dutton & Company, Inc., 1937 Cloth, \$1.75

Endocrinology Clinical Application and Treatment By August A. Werner, M.D. Octavo of 672 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$8.50

An Introduction to Medical Science By William Boyd, M.D. Octavo of 307 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$3.50

The Diagnosis and Treatment of Diseases of the Stomach and Intestines By William F. Cheney, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 378 pages New York, Oxford University Press, 1936 Cloth, \$5.50

The Diagnosis and Treatment of Diseases of the Liver and Biliary Tract By John Phillips, M.D. Revised by Russell L. Haden, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 539 pages, illustrated New York, Oxford University Press, 1936 Cloth, \$7.50

The Diagnosis and Treatment of Arthritis By Russell L. Cecil, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 263 pages, illustrated New York, Oxford University Press, 1936 Cloth, \$4.75

REVIEWS

Snow on Cholera Being a Reprint of two Papers by John Snow, M.D. Together with a Biographical Memoir by B. W. Richardson, M.D. & an Introduction by Wade Hampton Frost, M.D. Octavo of 191 pages New York, The Commonwealth Fund, 1936 Cloth, \$2.50

Among the epidemiologists of the Victorian era, John Snow occupied a most prominent place. To him we owe in great measure our modern knowledge on the precise epidemiology of cholera. In this vol-

ume are reprinted not only his classic treatise "On the Mode of Communication of Cholera" but also his important paper "On Continuous Molecular Changes, More Particularly in Their Relation to Epidemic Diseases."

In the treatise on cholera, Snow constructed on the basis of a "seemingly chaotic mass of facts" his conclusions on the mode of transmission and the principles of prophylaxis of the disease. His concept of a specific microorganism,

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DIFFERENTIAL DIAGNOSIS IN PULMONARY DISEASES

PAUL H RINGER, A B, M D, F A C P, *Asheville, N C*

In this paper bronchography and bronchoscopy will be mentioned but in passing. Their importance is realized and referred to. The former requires a paper by itself, with the latter the author has had no first-hand personal experience—to dwell upon it would be simply to abstract the work of others.

Great advances have been made during the past two decades in the differential diagnosis of pulmonary diseases. It is estimated in the light of present knowledge that twenty years ago from twenty-five to fifty per cent of cases admitted to sanatoria for the treatment of tuberculosis did not have tuberculosis at all. This was particularly true of those institutions seeking to admit only minimal cases.

This is a rather severe arraignment of the medical profession but, as I look back, I feel that it probably is a just one. It does not mean that physicians were dishonest or ignorant. It means that according to the standards of 1937, they were relatively unenlightened and did their best with the means at hand for utilization. While I cannot name chapter and verse, I can well recall many cases that I saw between 1910 and 1925, diagnosed tuberculosis and treated as such, which, in the light of present information, I am certain were in no sense tainted with tubercle. Some of these cases were well handled—they represented various types of chronic pulmonary infections which could not be specifically treated and which needed rest and general building up. Thus they received, albeit under the aegis of a faulty diagnosis, they improved and

the vast majority recovered. Another group, misdiagnosed and mistreated, went the way of all flesh because of our incapacity to properly evaluate the presenting symptomatology.

Four factors are responsible for the present increasing accuracy in the diagnosis of lung diseases. They are:

- 1 A far better appreciation and interpretation of x-ray findings, dependent upon (a) Vastly improved technic in the taking of films, (b) The result of experience in reading films, together with the information given at the necropsy table.

- 2 Bronchoscopy, which yields wonderful results in skilled hands.

- 3 Lipiodol injections, which map out lung areas hitherto a trackless wilderness to the clinician.

- 4 More exact methods of sputum examination and culture, resulting in the recognition of formerly unsuspected sources of chronic pulmonary infection.

In any case presenting symptoms referable to the respiratory tract, namely cough, sputum, hemoptysis, dyspnea, together with slight or marked constitutional manifestations, the following are the chief possibilities to bear in mind:

- 1 Pulmonary tuberculosis (always first and foremost)

- 2 Bronchiectasis

- 3 Pulmonary abscess

- 4 Pulmonary fibrosis

- 5 Pulmonary neoplasm

- 6 Mycotic disease.

- 7 Spirochetosis

- 8 Occupational diseases (Silicosis, asbestosis, and anthracosis)

- 9 Pulmonary syphilis

In many cases of pulmonary disease,

answers to questions, the young mother will find this book full of practical information—all she needs. It is a much better book than many others this reviewer has seen. The doctor may well recommend it to his patient.

CHARLES A. GORDON

A Textbook of Medicine By Charles P. Emerson, M.D. Quarto of 1296 pages. Philadelphia, J. B. Lippincott Company, 1936. Cloth, \$8.00.

To review the first edition of a Textbook of Medicine with one name as its author, is a task which one approaches with expectancy not unmingled with awe. It is a tremendous piece of work requiring courage and optimism for its undertaking.

The first problem the author has to face is whether there is need for such a book, if it is written along the same plan as those now in use, then certainly it is superfluous. The author attempts to avoid this by offering "several unique features." The "plan is to present Internal Medicine in terms of the clinical pictures of diseases and to explain these by the findings of Pathology, Bio-chemistry and the other pre-clinical sciences, rather than to emphasize the latter."

To bring to the notice of the student that medicine is largely an art, room is provided for giving the historic development of many important discoveries as well as brief biographies of familiar names in medicine. Furthermore, stress is placed on the interpretation of symptoms as evidence of expression of the defensive forces of the body. And lastly, that Bacteriology, Bio-chemistry and abnormal Physiology are not all the factors which determine the course and severity of disease, but very important also are the emotional reactions as well as information obtained by an inquiry into the past, the family and other environmental factors. All this is most commendable, and yet as these features are observed in the text, it doesn't impress the reviewer that in this respect there is a very appreciable difference from other text books. On the contrary, the subordination, in volume as well as in type, of the Morbid Anatomy tends to defeat the efforts of teachers in medicine to impress the student with the importance of this phase of disease.

It is admitted that the classification of disease is most difficult and unsatisfactory no matter from what angle it is approached, so that "many authors have attempted no classification whatever." Here, the diseases are divided into twenty parts beginning with one part headed "Specific Infectious diseases and ending with part twenty treating of Psychoneurotic Dis-

orders." While arbitrary, this classification is of use to the student who can thus readily locate a disease and at a glance observe its relation to allied conditions.

While it is true that Typhoid Fever is not as common a disease as a generation ago, detailed study of it has always served as a model on which was based the consideration of other classical diseases. Most authors still consider it such for they devote from thirty-three to twenty-two pages as against fifteen in this book. Also it is noted that the Pathology of the disease is treated in other texts in one or two pages, while here it is given in twelve lines. In a discussion of Acute Laryngitis (Page 605) it is questionable if the treatment of this condition is a problem for the specialist. It is not so disposed of in other texts. The Pathology of Gonococcus Infections surely deserves a more serious discussion. In the first edition it is to be expected that a few typographical errors creep in, such as on page 630 Chronic "Intestinal" Pneumonia. Most likely "Interstitial" is meant. Then, in note 12, page 267, first line, the word "valve" appears instead of "value."

The impression is left, after a rather extensive review of the book, that the future text-book of Medicine must be one in which a number of contributors, specialists in their line, must collaborate, perhaps not to the extent that characterizes Cecil, 3rd edition (1933) which contains the names of 140 contributors, and yet the number must be sufficient to divide the responsibility and add to the authoritativeness of the enterprise. The task for one is well-nigh impossible, no matter how very praiseworthy the effort.

SIMON R. BLATTEIS

Surgery for Dental Students By Philip H. Mitchner, M.D., Clement E. Shattock, M.D., Edward G. Slesinger, M.S. & Cecil P. G. Wakeley, D.Sc. Octavo of 364 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$4.75.

This book is exactly what the title implies, a textbook for dental students, carrying them through general surgical pathology, surgical infections and through all surgical matters, with special reference to those of interest to the practitioner or student of dentistry.

The work, while comprehensive, is decidedly written as a textbook covering the syllabus in surgery and surgical pathology of the Royal College of Surgeons of England, Scotland and Ireland, and of Universities of the British Empire.

It is the reviewer's opinion, that the book is carefully prepared, modern, and lives up to its purpose.

LAWRENCE J. DUNN

present Sixty-six per cent of lung abscesses develop after either surgical procedures or pneumonia. The onset is usually very acute and the patient is exceedingly ill. I have never seen a class of patients more acutely sick, and recover, than those the victims of pulmonary abscess prior to the breaking through into a bronchus and the consequent discharge of pus, thus changing the acute into the subacute abscess which in turn, fortunately frequently becomes chronic, when certain curative surgical procedures are of inestimable value.

David T Smith (quoted by Emerson), in a review of the etiological factors in 1212 cases of pulmonary abscess, gives the following figures

- 338 (28%) after tonsillectomy
- 188 (15%) after other operative procedures
- 77 (23%) after pneumonia
- 138 (11.5%) developed insidiously
- 18 (1.5%) Aspiration of foreign body
- 161 (13.5%) Miscellaneous causes (details not stated)
- 92 (7.5%) Cause unknown

The physical signs of pulmonary abscess are wholly without characterization. The x-ray picture is also protean. Diagnosis is essentially based on previous history, acuteness of onset, signs and x-ray evidences wherever they may be, a constant leukocytosis and, finally, the liberation of a varying amount of foul-smelling pus when the abscess ruptures into a bronchus. A point worth stressing is the extreme degree of illness in cases of pulmonary abscess, their marked toxicity far exceeding that of all save the most unusual cases of pulmonary tuberculosis. With the so-called "pointing" of the abscess, the diagnosis is self-evident. If the abscess does not drain spontaneously, the patient is apt to die from the overwhelming toxemia, for it is practically axiomatic among thoracic surgeons never to operate upon a pulmonary abscess in the acute stage.

Pulmonary fibrosis is a condition which has been but recently recognized as a definite clinical entity, leaving out those strictly occupational diseases, such as anthracosis, silicosis, and asbestosis, with

which we will not deal. Hampton² states that "on x-ray the pulmonary changes are quite similar to those associated with tuberculosis, but tuberculosis is more localized and less likely to involve entire lung fields." The physical signs of pulmonary fibrosis are notoriously insistent and no reliance can be placed on them. Very frequently pulmonary fibrosis is accompanied by emphysema, which in itself greatly masks all physical signs. Clinically the most characteristic symptom of fibrosis is *dyspnea*—but he would be a bold man who would hazard a fibrotic diagnosis on that symptom alone.

Hamman³ has reported four cases of acute pulmonary fibrosis occurring on the medical service of Johns Hopkins Hospital, all of them presenting symptoms of extreme cardiorespiratory failure, all of them dying and all of them coming to necropsy. His paper is too lengthy to abstract, but his summary may be given in part

From the pathological anatomy and the symptoms of these four patients we may reconstruct the course of an uncommon and remarkable disease. Pulmonary inflammation develops insidiously with little local or constitutional disturbance. Very shortly after the onset of pulmonary infection there occurs a marked proliferation of connective tissue which greatly thickens the alveolar walls and obliterates many of the air sacs and soon dyspnea comes on and grows increasingly severe as a result of the fibrosis which disturbs the relation of the alveolar capillaries to the air spaces and encroaches upon the alveoli themselves. At an early stage of the disease the exudate may be so extensive throughout all lobes of both lungs that acute suffocation occurs. At a later stage, as happened in two of our cases, the patient may die of slowly progressive suffocation. As pulmonary fibrosis increases and spreads, the circulation in the lungs is impeded, the pressure in the pulmonary artery is increased, and soon the right ventricle becomes dilated and hypertrophied. As the pressure in the pulmonary circulation steadily rises, a constantly increasing burden of work is thrown upon the right side of the heart. Soon or late the symptoms of congestive heart failure appear and steadily advance until death occurs from myocardial insufficiency.

These cases of acute pulmonary fibrosis are probably of more frequent incidence than we wot of. It would be well

the carefully taken history in itself almost confirms or excludes the presence of tuberculosis. Time prohibits entering upon the details of this question, but all who have taken several hundred histories in pulmonary cases will, I am sure, bear me out in this assertion. In my own experience I know that upon completion of the history I have (it may be that I am guilty of an *a priori* judgment) a very definite idea in my own mind as to whether the patient is suffering from a tuberculous or a nontuberculous lung affection. It may be the result of experience, it may be a guess, it may be a "hunch"—but nevertheless it is there and it very rarely lets me down. I do not mean to intimate that I allow my diagnosis to rest upon the history—but history plays an enormous role in the differential diagnosis of tuberculous and nontuberculous disease.

Trite though it may seem to repeat a statement which is practically axiomatic, let it be stated at the outset that physical signs (by which I mean rales) found in the lower lobes are to be considered as nontuberculous until proved otherwise, and that physical signs found in the apices are to be considered as evidence of tuberculosis until proved to be of other origin. Again, let me reiterate another truism: if a patient has a moderate or considerable amount of thick, yellow, yellowish green or green sputum and if on *repeated* examinations that sputum is found to be consistently negative for tubercle bacilli, the probabilities are all against the presence of tuberculosis.

If the two categorical statements just made are borne in mind and adhered to, a faulty diagnosis of tuberculosis will ere long become a rarity.

Bronchiectasis is a condition that is widespread and which in many instances is incorrectly diagnosed as tuberculosis. The textbook presentation of the condition differs vastly from that found in actual practice. No mistake in diagnosis will be made in the case of the patient with 250 to 500 c c of sputum in twenty-four hours, the sputum separating into three layers, the absence of tubercle bacilli, the basal physical signs, the relatively slight constitutional manifestations, the x-ray findings, particularly when reinforced by lipiodol injections. But these

are the so-called "classical" cases—they practically diagnose themselves. Far different are the milder evidences of the disease, when cough and sputum are not predominant, when physical signs are scant or absent, and when no characteristic finger clubbing exists. Then it is that the condition is most confounded with tuberculosis. The two conditions may, of course, coexist, but when they do the diagnosis of tuberculosis is usually obvious.

Emerson¹ says

Bronchiectasis is rarely seen in the upper lobes and when it does occur there is usually associated with tuberculosis. The dilated bronchi may indefinitely retain their integrity, or ulceration of the bronchial wall may be followed by perforation and abscess formation in the peribronchial tissue. On the other hand, bronchiectasis may follow abscess formation and in time overshadow the original lesion. Bronchopneumonic suppuration aptly describes lesions of this type.

Furthermore, in bronchiectasis the constitutional symptoms over a long period of time are slight as compared with the exacerbations and increasing toxemia of tuberculosis. Given, therefore, a condition of long-standing with chronic cough and sputum, the latter negative for tubercle bacilli, with relatively few constitutional symptoms, the verdict should be bronchiectasis rather than tuberculosis.

I had occasion some months ago to examine a man of fifty-five, six feet four in height and weighing two hundred and sixty-four pounds, who, over a period of four years every night expectorated 500 c c of purulent sputum. His general health was absolutely unimpaired, he did his work without undue fatigue, there were but a few rales at the base of the right lung, but the x-ray showed greatly dilated bronchi leading to the right lower lobe. I did not have an opportunity to do a lung-mapping on him as his stay in Asheville was too short, but his sputum had been repeatedly examined for tubercle bacilli and had always been negative. This was obviously a case of bronchiectasis.

Lung abscess is a condition that should readily be differentiated from tuberculosis, and yet many and many a time have I had patients referred as tuberculous when as a matter of fact abscess was

the mind of the clinician. It is important not to miss these cases as the treatment is wholly different from that instituted in tuberculosis.

There is no doubt in my mind, as well as in the minds of others, notably Fischel,⁴ that the human organism is reacting differently to the tubercle bacillus than it did of yore. By this I mean that nowadays we see far more acute onsets, with temperature from 102 to 104° F, with severe toxemia and great prostration. Of course, the insidious onsets still exist but they are not as frequent as heretofore. All too often the patient says that he had "influenza" and was in bed from four to six weeks before the temperature subsided to between 99 and 100° F. I do not see these cases at their beginning. My information is derived from the history. We all know, however, that influenza does not incapacitate for a month or six weeks, that, uncomplicated, it is a disease of short duration. I am convinced that these long-drawn-out cases of "influenza" are in reality acute onsets of pulmonary tuberculosis and should be recognized as such. It still is a matter of astonishment to me how much time is often lost before an x-ray is taken and how long a period elapses before a sputum examination is made. Both are laboratory tests of such simplicity and of such negligible expense that failure to have them done does not redound to the credit of the attending physician.

As previously stated, it is not proposed to dwell here upon asbestosis, silicosis, and anthracosis. All three of them represent forms of chronic pulmonary fibrosis, but also all three of them are strictly occupational diseases and the history should give this information and hence the key to the diagnosis. X-ray and physical examination are not conclusive in the absence of knowledge of the mode of life and occupation of the patient.

Pulmonary syphilis is a very rare condition. I have never seen a proven case. Many years ago I remember a patient with apical rales and a 4+ Wassermann who was given specific treatment under which the apical rales and the accompanying cough and sputum disappeared. I presume that this was a case of pulmonary syphilis but definite proof is ab-

sent. Pulmonary gummata have been described and also areas resembling bronchopneumonic patches near the lung hilus which disappeared under treatment in a patient with a definite diagnosis of syphilis. While the condition may, and doubtless does, occur, we need not spend sleepless nights wondering whether our patient has pulmonary lues or not.

Hitherto no mention has been made of the value of the intradermal or Mantoux tuberculin test. A positive test simply reveals allergy to tubercle and confirms the pre-existence of a tuberculous infection, but by no means clinches a diagnosis of tuberculous disease. This rule holds good after the second or third year. Prior to that age, a definitely positive test, coupled with whatever symptoms may be present, is valuable evidence of existing active disease.

It has been thought until comparatively recently that practically all adults reacted positively to the intradermal test, this attitude being based on the old German phrase "Jederman hat am ende bei sich ein bischen Tuberkulose"—eventually everybody has a little tuberculosis. Thus, however, can no longer be held as an actual fact. I find quite a considerable number of adults that react negatively to the test, and a survey at Framingham, Mass., in 1926, showed a lessening of twenty-three per cent in skin reactions as compared to the survey of 1917. So it would seem that while, as pointed out previously, more human beings are reacting violently to initial tuberculous disease, at the same time a larger number are developing a greater natural immunity to tuberculous infection.

One could go on almost *ad infinitum* in the study of differential factors in pulmonary disease. To do so, however, would but serve to obscure the picture. Therefore, to summarize, what must be kept chiefly in mind? I have thirteen points and for once I will be rather dogmatic.

- 1 Pulmonary tuberculosis must constantly be kept in the foreground

- 2 Good stereoscopic x-ray films are essential in diagnosis

- 3 Failure to examine sputum is equal to malpractice

- 4 Failure to find tubercle bacilli after

for all of us to be on the lookout for them and not to ascribe certain obscure deaths to an unlocalized bronchopneumonia or merely to myocardial failure. Dr Hamman's cases also show how valuable is the necropsy and how zealous we should be to secure one in all cases the evolution of which is not perfectly plain.

Cancer of the Lung

Primary pulmonary carcinoma is practically always bronchogenic. When we come to deal with metastatic pulmonary malignancy, the diagnosis rests upon respiratory symptoms superimposed upon a known cancerous base.

The main symptoms of pulmonary malignancy are pain, dyspnea, x-ray findings of an heterogeneous nature with rapid spread, added to which there is the constantly increasing cachexia characteristic of malignant disease wherever situated. Most characteristic is a dyspnea out of all proportion to the anatomical damage as revealed by physical examination or x-ray. Again, the often voluminous sputum is relatively benign in appearance and, of course, persistently negative for tubercle bacilli. Physical signs are practically of no diagnostic value. Emerson wisely says "All obscure cases, particularly those with lesions of the lower lobes, with more or less indefinite symptoms and negative sputum, should be bronchoscoped and lipiodol films made *before* subjecting the patient to a long and tedious period of observation."

I would like unequivocally to endorse this statement. I do feel that in patients definitely ill, all too frequently valuable time is lost by keeping the individual "under observation." There are certain things that can be done. Therefore, why delay? I do not here refer to the patient but slightly ailing, with a temperature of 99.2 to 99.6° F with few or no respiratory symptoms and practically no physical signs. We all see those patients and they cause us lots of worry because we cannot put our diagnostic finger on any one thing. The patient I have in mind is the one that is obviously sick. In this class of cases there is no reason for procrastination. The sooner the patient is investigated bronchoscopically or lipiodolly (pardon the coined word), the better.

Pulmonary Bleeding

With our greater knowledge of intrapulmonary conditions there has, of course, come about a more liberal interpretation of hemoptysis which, twenty-five years ago, was unquestionably and unhesitatingly assumed to be *prima facie* evidence of tuberculosis. We know better now, and yet the very fact that we do know better has tended to becloud the significance of pulmonary bleeding. It must still be maintained that by far the greater number of hemoptyses are due to tuberculosis. Some are due to bronchiectasis, some, mixed with pus, to lung abscesses, many to cardiac pathology, and there are a few whose origin is undiscoverable. I had such an individual a year or so ago—a man having repeated and severe hemoptyses from the right lung, no tubercle bacilli ever to be found, general condition excellent. He was bronchoscoped by Dr Hart of Charlotte, N. C., who could see the bleeding point but could not close it. Examinations of secretions taken bronchoscopically were absolutely negative for all organisms. Artificial pneumothorax was induced and under compression the bleeding stopped and has not recurred in months. The pneumothorax is being continued and the man is in excellent condition and working full time. This is a case of bleeding of unknown origin. These cases are rare, but they do occur and it is wrong to diagnose all cases of hemoptysis as being of tuberculous origin and therefore subjecting them to the lengthy and expensive cure necessary for recovery from that disease.

Reference can be made to other pulmonary conditions that are often diagnosed as tuberculosis. Aspergillosis is one. The x-ray and the physical signs may be practically identical with those found in true infection with tubercle, but the persistently negative sputum is a great argument against tuberculosis, and the finding of the characteristic fungus when the sputum is cultured on Sabouraud's medium clinches the diagnosis. The same general truths hold true for spirochetosis and the diagnosis hinges not so much on clinical features as on accurate laboratory examinations. Of course, the possibility of these conditions must be in

DIAGNOSIS OF SURGICAL JAUNDICE

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In the last three years we have been especially interested in jaundice. Through the courtesy of our colleagues we have been able to see three hundred and fifty cases, from which we have selected eighty-four for analysis in which the diagnosis was either proven by operation, autopsy or subsequent course. Half of these were "medical jaundice," the other forty-two were "surgical jaundice" consisting of twenty six cases of stone and sixteen cases of carcinoma obstructing the common bile-duct. All the cases presented jaundice of recent date. For our own satisfaction we have reviewed the records of these cases to determine what points in history, physical examination, and laboratory study were of real help in reaching a diagnosis.

I History

The following five points in the patient's history were selected for consideration: (1) pain, (2) itching, (3) chill at onset, (4) history of previous attacks of pain or jaundice, and (5) history of use of hepatotoxic substances or exposure to infectious types of jaundice.

Pain Of the twenty-six cases of common duct obstruction due to stone there was only one that did not have upper abdominal pain. The majority complained of pain which was rather typical of gall-bladder colic, with the usual radiation to the scapula or along the costal margin.

Our cases of carcinoma of the common bile-duct contradict the usual statement that the jaundice is characteristically unassociated with abdominal pain. Eight of the sixteen patients with carcinoma complained of pain at the time of onset of the jaundice. In four of these the pain simulated gall-stone colic. In four others, it was less sharply defined but was abdominal, for the most part right-sided and could have been misleading if over-emphasized.

Pain occurred in eighteen of the forty-two cases of hepatitis, and in nine of them it was either epigastric or localized in the right upper quadrant. In some it simulated mild gall-bladder colic.

It is evident that pain by itself is not a deciding symptom. When severe it favors the diagnosis of stone but it does not exclude the diagnosis of either carcinoma or hepatitis.

Pruritus Pruritus is a symptom of little significance. It occurs about as frequently in each of the three groups considered. Thus in twenty-six cases of stone it occurred in ten, in sixteen carcinoma cases it occurred in nine, and in forty-two hepatitis cases it occurred in sixteen.

Chills Chills do not often occur. They were mainly characteristic of the calculus cases, occurring at the beginning in four of the twenty-six cases. There was only one chill at the onset among the forty-two cases of hepatitis and none among the sixteen cases of carcinoma, although two gave a history of chilly sensations. This symptom, when present, is of diagnostic value.

Previous Attacks of Pain or Digestive Disturbance Twenty-three of the twenty-six cases of obstructing calculus presented such a history. Only three of the sixteen cases of carcinoma, and four of the forty-two cases of hepatitis, gave a definite history of antecedent episodes of abdominal discomfort. This finding thus is of differential value.

History of Exposure to Toxic Substances or to Infectious Jaundice Among the cases of hepatitis, histories of toxic substances were obtained in eleven cases: one case followed salvarsan therapy, one followed cinchophen therapy, one followed novatophan therapy, three followed hypertonic saline injections, three followed liver extract intramuscularly, and two followed alcoholic bouts.

Hypertonic saline intravenously for

Read at a combined meeting of the New York Academy of Medicine and the New York Gastroenterological Society, November 17, 1936

repeated attempts is a great argument against the presence of tuberculosis

5 In *all* children under twelve and in *all uncertain* adult cases an intradermal tuberculin test should be done. Lots of adults will react negatively and that throws out tuberculosis

6 A carefully taken history is of great importance. It need not be long. Quality is away above quantity. Do not leave this to an assistant. Do it yourself

7 Resort promptly to bronchoscopy and lung mapping in all doubtful cases that are really ill

8 Remember that persistent absence of tubercle bacilli from sputum merely *excludes tuberculosis*. The patient is not a bit better than before. Continue to search the sputum for some definite cause of infection

9 The ravages of bronchiectasis are almost never like those of tuberculosis unless they coexist, and then tuberculosis is the primary disease to be treated

10 Hemoptysis is not pathognomonic of tuberculosis

11 An extremely acute postoperative pulmonary symptomatology should direct the diagnostic finger toward abscess

12 Fibrotic conditions arise in the presence of chronic sinusitis and other chronic infections elsewhere in the body. There may be acute fibrotic pulmonary conditions. Think of them

13 Pulmonary malignancy is on the increase. In the primary type bronchoscopy is invaluable diagnostically. In the metastatic type the diagnosis is of scientific interest only

The lungs present a multiplicity of chronic diseases differing in origin, in symptomatology, in pathology, and in treatment. We have traveled far since Hippocrates uttered his famous aphorism "From a spitting of blood there comes a spitting of pus." That aphorism holds as true today as upon its primal utterance. But into what diagnostic labyrinths has that blood and that pus led us! With our increasing knowledge comes also increasing doubt, with increasing doubt, increasing curiosity, with increasing curiosity, increasing investigation, and with increasing investigation, increasing discovery

Yet, though we are far from the top of the hill, most certainly we are on our way and with deeper delving into the half-hidden mysteries of ourselves and our environment, we come to realize more and more the deep wisdom contained in that other aphorism of the Father of Medicine that most appeals to me and which I love to quote

"Life is short and the art long,
the occasion fleeting, experience fallacious and judgment difficult"

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References

- 1 Emerson, E. B. *New England Jour. of Med.* p 365, Feb 15, 1934
- 2 Hampton, A. O. *Ibid.*, Dec. 12, 1935
- 3 Hamman, Louis. *Trans. Am. Clin. & Climat. Assn.*, 1935
- 4 Fischel, Karl. *N. Y. S. JOURNAL OF MEDICINE*, 36 849, 1936

CANCER QUACKS BUSIER THAN EVER

Explaining that cancer "cures" and "preventives" recently have been "boldly and subtly exploited," the Executive Committee of the American Society for the Control of Cancer issues a statement declaring that early and accurate diagnosis and prompt treatment by surgery, radium or x-ray offer "the only present hope of cure."

The committee warns the public against relying for cancer therapy on "glandular substances," "secret chemical formulae," "antitoxins" or "diet." Dr. C. C. Little, managing director of the society, said all these "methods" of cure had been found valueless.

"With the extension of the cancer problem to include the fields of biology, chemistry and physics, as well as its former terrain within the practice of the medical pro-

fession, new dangers have arisen," the society's statement said.

"These dangers are the wide and varied assortment of 'cures' and 'preventives' claimed by a number of individuals in many parts of the world. At no other time have these 'cures' been so boldly and subtly exploited.

"The amount of scientific training and of honest conviction in the value of their work, possessed by the persons making these claims, undoubtedly varies. There is, however, a mechanism by which these cures can be tested without detracting from the credit of the discoverer. This is by asking cancer research laboratories and leading medical schools to evaluate the discovery in the same way that insulin was introduced to the public."

The galactose tolerance test was negative. (This, however, is quite usual in cases of subsiding hepatitis.) Her stools were normal. The right upper quadrant tenderness gradually receded. A diagnosis of simple jaundice was made at discharge.

Eight months later she was readmitted. She had been well until four days before admission when she began to have severe epigastric pain which radiated to the right upper quadrant. This was followed by vomiting and jaundice. The temperature rose with a shaking chill shortly before admission.

There was definite tenderness in the epigastrium and right upper quadrant. The temperature was 102°. The urine contained a faint trace of bile and urobilin in normal amounts. The blood cholesterol was 155 mg and cholesterol ester forty-two mg. At this time the patient was considered to have had a mild cholecystitis and it was thought the attack might subside. However, it did not.

Operation disclosed several faceted stones in the gall-bladder while the common duct, which was dilated to about three times normal, contained thirty-five to forty very small biliary calculi.

Comment This case emphasized the fact that the common duct may be filled with stones and yet no icterus or pain be present for long periods of time. While simple jaundice is a disease which affects the young (in whom gall-bladder disease is rare), one must consider the possibility of calculus in spite of the youth of a patient.

II Physical Findings

The physical examination was of some, though not of great importance. The spleen was palpable in a far greater proportion of hepatitis cases than in the other two diseases (seventeen cases of hepatitis, three of carcinoma, two calculus cases). While the liver was generally enlarged in the cases of hepatitis (thirty-one of the forty-two), it was enlarged in eighteen of the twenty-six cases of calculus disease, and in nine of the sixteen cases of carcinoma. Hepatic enlargement is of little help in diagnosis.

Courvoisier's rule that the presence of an enlarged non-tender gall-bladder with jaundice is indicative of obstruction due to carcinoma rather than to stone, did not hold in this series. The gall-bladder was palpable in five cases of calculus disease, in only three of carcinoma of the biliary tract, and in two of hepatitis. A probable

explanation of this failure is as follows: cholecystitis is a frequent disease and thus may be coincidental with the more rare carcinoma of the head of the pancreas and cause shrinkage of the gall-bladder. Or the liver may be so much enlarged as to prevent palpation of an underlying distended gall-bladder. On the other hand a Courvoisier gall-bladder may be simulated either by hydrops of the gall-bladder due to occlusion of the cystic duct by stone, or by an abnormal projection of the liver edge (Riedel's lobe) or a ptosed kidney.

Localized abdominal rigidity was present in five cases of calculus disease, three of carcinoma, and in none of acute hepatitis. We infer that the presence of rigidity is opposed to the diagnosis of acute hepatitis.

Fever Over a third of our calculus cases presented fever at the onset. Only two of the carcinoma cases and one of the hepatitis cases did so. The presence of fever favors the diagnosis of calculus obstruction.

III Laboratory Findings

Galactose Test Of the so-called "liver function tests," the one which has proved to be of the greatest value is the galactose tolerance test of Bauer. Unfortunately the test was not done in all the cases of obstructed duct because in many of them the diagnosis was fairly certain on other grounds, and it was not thought justifiable to postpone operation in order to make laboratory studies. In seven cases of gall-stone obstruction all the tests were negative. Two of the five done in cases of obstruction due to carcinoma were positive. However, one of these patients was tested at a time when jaundice had been evident for about three months and the other when it had lasted for over three weeks. It is well-known that prolonged obstruction causes parenchymatous liver damage. Of the thirty-six tests done in cases of hepatitis, fifteen gave a positive result. Most of these were done rather early in the course of the disease. A positive test fairly early in the course of jaundice therefore points strongly to hepatic degeneration.

Hippuric acid test The new hippuric acid synthesis test of liver function origi-

thromboangitis and liver extract injections intramuscularly, have never before been reported as causes of liver degeneration but we have seen seven cases following hypertonic saline and nine cases following liver extract injections. These cases will be described elsewhere by other members of the hospital staff. One of these cases has been published by Elitzik.¹

Two of the cases of simple ("Catarhal") jaundice were easily identified because they came from a public institution in which there was an epidemic of simple jaundice.

In thirteen then, of the forty-two cases of hepatic degeneration some definite history of etiological factors was obtained.

While exposure to toxic substances or some infectious form of jaundice favors the diagnosis of hepatitis, just as the history of previous attacks of pain and indigestion favors the diagnosis of calculus, the history alone may be misleading. A person with biliary obstruction may have recently received some toxic substance without the latter necessarily having injured his liver, or gall-stones may be merely incidental in liver degeneration. Thus consider the following two cases (which because of the doubt in diagnosis are not included in our statistics).

A.M., thirty-eight year old Porto Rican male, was admitted to the hospital because of a deep progressive icterus associated with anorexia and dizziness of two weeks duration. With the onset of jaundice two weeks before admission, the stools became light and the urine dark. There was no pain. He had received antiluetic therapy intravenously for the past two years. The last intravenous injection was received six weeks before the onset of jaundice.

The liver was enlarged to four cm. below the costal margin. The spleen was palpable. The galactose tolerance test was negative. Duodenal drainage revealed slightly cloudy, whitish fluid. There were many white cells as well as epithelial cells present. The blood cholesterol was 160 mg., the cholesterol ester 50 mg., the icterus index 150.

The patient was given a high carbohydrate diet with intravenous glucose. He made a gradual recovery. The blood cholesterol rose to 230 mg. and the cholesterol ester to 115. The icterus index fell to eight-five and then to forty-five. The stools were normal. The urine contained large amounts of bile and no urobilin,

and cleared before discharge. This patient was considered to be a characteristic case of salvarsan hepatitis.

About a year later he was readmitted and stated that he had remained well until four days before admission when he suddenly developed severe right upper quadrant pain which later radiated across the epigastrium to the left lower quadrant. This was followed by nausea and vomiting.

He appeared acutely ill and in great pain, and had severe direct and rebound tenderness and rigidity in the epigastrium in which a vague mass was felt. His temperature was 102, pulse eighty-six. The intra-abdominal process apparently subsided, the temperature fell to normal, and five days after admission, he seemed well. X-rays revealed the presence of small stones within the gall-bladder. Exploratory laparotomy was then performed and chronic cholecystitis with cholelithiasis was found. The common duct was free of calculus.

Comment. It is possible that the patient suffered from two separate conditions at a year's interval. However, in view of the subsequent cholelithiasis, there may be some doubt as to whether the attack of jaundice in the previous year was really arsphenamine hepatitis, or was due to a silent stone in the common duct.

V.V., an Italian girl of sixteen presents another instance in which the probable erroneous diagnosis of jaundice was made in the first attack because of the extreme youth of the patient, and the palpable spleen. She was admitted with a two and a half week's history of severe recurring epigastric pain, relieved by vomiting. The pain returned two days before admission and radiated to the right upper quadrant. Three days preceding admission, she became constipated and had anorexia and acid eructations. A day later the pain recurred and a day before admission, the patient noted jaundice.

The liver was felt three cm. below the right costal margin where tenderness was present. The spleen was soft and just palpable. During her stay in the hospital her temperature remained below 100° with the exception of one unexplained rise to 102. The urine was found to contain no bile and only traces of urobilin. The icteric index was seventeen with a quantitative van den Bergh of 0.4 mg. The blood cholesterol was 200 mg. total with fifty-five mg. of ester.

It was thought that the patient was suffering from hepatitis. She was given a high carbohydrate diet. The cholesterol figures rose slowly. On discharge the cholesterol was 300 mg. total with ester of 155 mg.

Low figures for cholesterol ester when determined in jaundice point to liver parenchyma damage. This fact must be evaluated in considering the prognosis of surgical intervention in cases which on other grounds are thought to be obstructive.

Duodenal Contents Duodenal drainage is often thought to be a help in establishing differential diagnosis between the three conditions. Bile was present in seven of the eleven drainages done in cholelithiasis cases, in one of the six aspirations in carcinoma cases, and in all the twenty hepatitis cases. The complete absence of bile in the duodenal contents suggests complete obstruction and usually carcinoma. However, it must be remembered that if hepatitis cases are carefully followed, there are occasionally periods of several days in which urobilin is completely absent from the urine and feces. If duodenal contents is aspirated during this interval, bile is absent.

The significance of ferments is debatable and the ferment examinations in our cases were only confusing. Even though a complete obstruction may be present at the choledochus and the duct of Wirsung, ferments may still be found if the duct of Santorini is patent.

Cholesterol crystals and pus cells if found, are thought to indicate cholelithiasis. Cholesterol crystals were present in five of eleven calculus obstructions, in one of six cases of carcinoma of the head of the pancreas, and in three of the twenty-six cases of hepatitis. The presence of crystals at best is more suggestive of cholelithiasis than of carcinoma or hepatitis. In the one case of obstruction due to carcinoma in which crystals, pus, and bile were found, the gall-bladder was free of disease and calculi.

X-rays The use of the dye method for visualization of the gall-bladder is of little value in the presence of jaundice. In calculus obstruction of the common bile duct, seventeen cases were x-rayed without dye and three showed radio-opaque stones. In thirteen cases of carcinomatous obstruction, none showed stones. It is worthwhile, therefore, in doubtful cases to have a "flat plate" of the abdomen in the hope of detecting a radio-opaque stone. Shadows present must, however, be interpreted with great

caution as is illustrated by one of our cases (not included in the statistical summary because of doubt as to the diagnosis).

A E., a fifty year old male, gave a history of postprandial distress for fifteen years. The present attack of illness consisted of painless, progressive jaundice with clay-colored stools, pruritus, nausea, and occasional vomiting for three months.

Duodenal drainage showed the presence of bile and the absence of pus and crystals. The stool, though white in color, did show some urobilin. The blood cholesterol was high, 420 mg, with cholesterol ester 100. The Takata-Ara test and galactose test were negative. The urine did not show tyrosin. The hippuric acid test was normal. A flat plate of the abdomen showed a large calcific shadow in the right upper quadrant which was thought to be a large gall-stone.

The patient was kept under observation. The icterus gradually subsided. After it had completely cleared, a gall-bladder visualization was done. The gall-bladder was normal and the shadow previously noted was found to be extrabiliary.

Operative Findings

Some of the incidental operative findings were significant. Fortunately no cases of hepatitis were subjected to operation. In twenty-six cases of calculus obstruction of the common bile-duct, nineteen revealed cholecystitis, one biliary cirrhosis, and three cholangitis.

In the sixteen carcinoma cases, four involved the common bile-duct, one the hepatic duct, two the cystic duct, and nine the head of the pancreas. In this small series, there were seven deaths, while in the twenty-six cases of common duct stone, there were four deaths.

Especially Difficult Cases

Besides the tabulated cases of jaundice in which diagnosis was practically certain, there were a number of cases which presented peculiar diagnostic difficulties. It is especially instructive to point out the source of confusion in some of these cases.

S R., a male of forty-five years of age had received numerous injections of hypertonic saline solution for thromboangitis obliterans. Following one of these injections he developed rather severe jaundice. The onset was without pain or fever and at

nated by Quick² has been studied in the past year at our hospital by Dr Doubillet. This examination which promises to be at least of equal value to the galactose test is very simple*. Of the Quick tests in twenty-three cases of hepatitis, fourteen were definitely positive, *i.e.*, less than three grams were excreted, in six more were border-line results, three to four grams of hippuric acid having been excreted. This new test has not yet been tried in a sufficient number of control cases of obstruction. However, if the control cases already published are a criterion, the test is valuable.

Tyrosinuria The presence of tyrosin in the urine was determined by the new method of Lichtman and Sobotka³ and under their supervision. Seven were reported positive in thirty examinations of acute hepatitis. Two were reported positive in seven cases of gall-stone obstruction. In one of these cases, the patient had had an obstructive jaundice for a month. In five tests in carcinoma cases, two also were reported positive. Of these one was a patient in which jaundice had been present for over three weeks. Lichtman recently suggested that the destruction of tissue in carcinoma may in itself produce tyrosin⁴. While tyrosinuria indicates liver damage, the test should be used in differential diagnosis only if the amount of tyrosin is large.

Takata Ara Test⁵ Another new clinical test is the Takata Ara precipitation test†. The three tests done in carcinoma cases were all negative. Of the seventeen tests in hepatitis cases, five were positive. The number of the tests is at present too small to permit conclusions.

Blood Cholesterol Much reliance has been placed upon the estimation of the cholesterol and cholesterol ester of the blood, which was a routine determination.

* Six grams of benzoic acid are administered to the patient. The excretion of hippuric acid in the urine is directly determined. Normal persons excrete over three grams within five hours.

† This is based upon the observation that in certain diseases, the patient's blood serum lacks a peculiar protective colloid and permits the precipitation of a special colloidal mercury solution. The technic of the test is simple, resembling in many ways the colloidal gold test in spinal fluid. A positive Takata-Ara reaction may occur in any febrile or inflammatory disease, but among the noninflammatory diseases, positive results occur chiefly in acute liver degeneration, hepatic cirrhosis, and nephrosis. Inasmuch as the last two diagnoses do not have to be considered in the current series, the results of these tests are of some significance.

Normal figures for blood cholesterol are assumed to be 200 to 250 mg per 100 c.c. of blood. The cholesterol ester is regarded as abnormally low when it is less than half the total cholesterol. In the presence of jaundice, high blood cholesterol generally points toward obstruction. Low cholesterol and especially low cholesterol esters point to liver degeneration.

Using these standards the following data were obtained:

	Cholesterol		Ester
	High	Low	Low
26 calculus cases	19	6	14
16 carcinoma cases	14		5
42 hepatitis cases	12	17	23

In all these cases, the blood tests referred to were obtained during the first week of the patient's stay when the question of diagnosis was particularly important. In Epstein's previous work⁶ in hepatitis cases in which he reported greater frequency of low figures for cholesterol and especially for cholesterol ester, the tests were done repeatedly throughout the course of the disease. It is important to know that during convalescence from hepatic degeneration, *i.e.*, during the regenerative stage, the blood cholesterol tends to increase above normal. On the contrary, after the relief of obstruction, blood cholesterol tends to drop toward normal. It is therefore important in interpreting cholesterol to know whether blood bilirubin is on the increase or on the decrease. The value of repeated determinations of cholesterol and blood bilirubin is evident.

Many cases of hepatitis, particularly the milder cases, and those due to salvarsan⁷ and to hypertonic saline solutions, show somewhat elevated cholesterol and cholesterol ester determination instead of the expected low figures. It is possible that in some of these cases the real mechanism of the jaundice is not hepatic cell degeneration but inflammation of the smallest bile ducts, cholangiolitis—hence the jaundice is truly obstructive.

The factors which we have found worth taking into consideration are

HISTORY Pains, chills, previous attacks, and ingestion of toxic substances

PHYSICAL FINDINGS Palpable spleen, local rigidity, and fever at onset

LABORATORY TESTS Galactose test, Hippuric acid test, Tyrosin in urine, Blood cholesterol, Blood cholesterol ester, Duodenal contents, and X-ray for radio-opaque calculi

With every one of these features it is only the unmistakable positive which can be evaluated. The absence of a symptom, sign or test has little or no significance. Its presence can only be said to add somewhat to the probability of the particular

one of the three conditions in which it is known to predominate percentually. With this understanding we can classify the features as in the accompanying table.

The stress of research in recent years has been on laboratory evidence of liver degeneration. From the surgical point of view what is most needed is a positive test for the existence of obstruction in the bile-duct. It is possible that this will be afforded by a method of x-ray visualization of the gall-bladder and bile-ducts which is applicable in the presence of jaundice and which has just been announced by Foote and Carr.⁸

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References

- 1 Elitzik, R. C. J Mount Sinai Hospital, 3 162, 1936
- 2 Quick, A J and Cooper, M A *Am J Med Sci* 185 630, 1933
- 3 Lichtman, S S and Sobotha, H *J Biol Chem*, 85 261 1929
- 4 Lichtman, S S *Arch Int Med* 53 680, 1934

- 5 Jetzler *Zeit f kl Med*, 111 48, 1929 and 114 739, 1930
- 6 Erling Skouge *Klin Woch* 12 905 1933
- 7 Epstein, E Z *Arch Int Med* 47 82, 1931
- 8 Bailey and MacKay *Ibid* 25 628, 1920
- 8 Foote and Carr *Surg Gyn and Obst*, 63 570 1936

FEVER THERAPY FOR GONORRHEA

Twenty-five physicians from leading medical centers in this country and abroad testified at the First International Fever Conference, at the Waldorf-Astoria Hotel, that they had found artificial fever to be a specific cure for gonorrhea in both men and women, according to a report in the *New York Times*.

The fever treatments, they reported, had resulted in speedy recoveries in both recent and chronic cases, including those which had failed to respond to treatment by chemicals. In only a small percentage of the patients, they found, had the treatment failed to yield effective results.

This marked the first occasion at which so many specialists from widely geographical points reported with practical unanimity on the subject.

The results were regarded by those present as of extreme importance, particularly to women, for whom the disease generally required months and years of treatment, with not infrequent serious surgical operations which made them invalids for life. Many of the cases were reported as "cured" by fever therapy in one day.

Professor Arthur Elmer Belt of the College of Medical Evangelists, Los Angeles and Dr Alvin William Folkenberg, also of Los Angeles, reported that a single ten-hour treatment at 106.8 degrees Fahrenheit cured fifty-nine out of sixty-four patients. The single fever session, they added,

worked essentially equally well in both acute and chronic cases.

The length of the treatment and the height of the temperature required, several of the physicians reported, depends on the "thermal death time" of the particular strain of bacteria infecting the patient. Some strains, it has been found by experiments, are more resistant to heat than others. Fortunately, however, it has been found that the virulence of the strain does not necessarily make it more resistant to heat than the less virulent strains.

The "thermal death time" is first determined by subjecting a specimen taken from the patient to heat outside the body. Experience has shown that the same temperature and the same length of time are sufficient to destroy the germs in the patient.

Professor Charles M Carpenter and Dr Ruth Boak of the University of Rochester School of Medicine said that for "the rational employment of artificially induced fever a knowledge of the thermal death time" of a particular strain of germs "is essential."

Dr Stafford L. Warren also of the Rochester School of Medicine, reported eighty-seven cures of one hundred cases. Ascertainment of the thermal death time, he said "is a practical guide in adjusting the length of the fever treatment to fit the needs of the individual patient."

first he was regarded as a typical instance of hepatic degeneration. However, he ran an unusually severe and prolonged course. The jaundice became very intense, urobilin was absent from the stools a large part of the time as well as from the urine. The blood cholesterol instead of being depressed, was normal or slightly elevated, 290 mg cholesterol, 140 mg cholesterol ester. The tyrosin test in the urine was negative on two occasions and the galactose tolerance test was normal. The duodenal drainage showed the absence of bile, although diastase and trypsin were present.

Because of all these features, the possibility of mechanical obstruction was given

and some of the findings were consistent with a common duct-stone which subsequently passed into the intestine, many of the features, particularly the low total cholesterol and ester, and repeatedly positive galactose tests, pointed to a degeneration of the liver.

The case of S R., a female sixty-two years old, illustrates the difficulty in making a positive diagnosis between a silent stone in the common-bile duct and a pancreatic neoplasm, and especially brings out the importance of surgical exploration in cases of obstructive jaundice.

Patient was admitted to the hospital complaining of jaundice of two months duration

TABLE I

HISTORY	<i>In favor of Calculus</i>	<i>Carcinoma</i>	<i>Hepatitis</i>
	Severe pain at onset Chills at onset Previous attacks of pain or indigestion	Age	Youth Use of toxic substances
PHYSICAL EXAMINATION	Local rigidity of abdomen Fever at onset		Palpable spleen
LABORATORY FINDINGS	Crystals (Cholesterol) in duodenal contents X-ray finding of calculi High blood cholesterol	Absence of bile from duodenal contents High blood cholesterol	Galactose test positive Hippuric acid test positive Abundant tyrosin in urine Low blood cholesterol Low blood cholesterol ester

serious consideration, and the patient was about to be surgically explored when the icterus commenced to diminish in intensity and he made a complete recovery in three months.

In retrospect, it seems that this was a case of hepatic degeneration. On account of some doubt as to the diagnosis, this and the following case were not included in our statistics.

M C was a sixty year old woman with a history of intolerance to fatty foods for many years.

Five weeks before admission she developed chilly sensations, vomiting, and jaundice, followed by clay-colored stools. There was some tenderness and spasticity in the right upper quadrant of the abdomen, and in the right trapezius muscle. There was a low grade fever. The blood cholesterol was low, 165 mg per 100 cc with cholesterol ester only fifty mg per 100 cc. Urobilin was present in the stools and duodenal drainage showed the presence of bile. The galactose tolerance test was positive, 59 grams excreted.

The jaundice gradually cleared up. A gall-bladder visualization was subsequently done. The organ was faintly visualized, and there was no evidence of stones. The gastrointestinal x-ray series were also negative. It was felt that while the history

which was accompanied by marked pruritus. Seven months before she had had a mild attack of epigastric pain. At no time in the present illness had she any pain nor had there been either chills or fever.

She looked very ill and jaundiced. The liver was felt four centimeters below the costal margin. The icteric index was forty-five. The stools showed complete absence of urobilin. It was thought that she was suffering from carcinoma of the head of the pancreas.

However, operation disclosed a chronically inflamed gall-bladder which contained stones, one of which had perforated into the common bile-duct causing complete obstruction. The liver showed gross evidence of biliary cirrhosis. The gall-bladder was removed and the common duct cleared of the calculus. She made an uneventful recovery.

Conclusions

There is no single symptom, sign or test on which reliance can be placed in the diagnosis of the cause of an attack of jaundice. In order to reach a decision one has to make a composite picture, assessing the importance of each of a number of features. Even then occasional errors are inevitable.



Fig 1 *Left*—Nasal hump and long tip *Right*—Nasal hump removed and nose shortened

thought of accompanying pain with the operation causes them to shrink away from it. Some of these eventually muster enough courage and seek an operation but some continually procrastinate out of sheer timidity.

When Jacques Joseph of Berlin introduced his endonasal approach in corrective nasal surgery in 1909, many objections were advanced denouncing his method. There are many reputable surgeons who believe the endonasal approach is more dangerous than the external incisional approach. If we may be permitted to judge the arguments advanced by the actual results obtained by many surgeons, the fears expressed against the endonasal approach would become unjustified. The opponents of the internal nasal incision state that the nasal cavity is exposed after the removal of a hump, hence making the fractured bones vulnerable to bacterial invasion. But they overlook the fact that the same is invariably obtained even in an external incisional approach no matter how much care they may take. Moreover, the high resistance of the mucous membrane of the nose to bacterial assault should dispel any fear of infection if the proper aseptic and antiseptic principles of medicine are scrupulously applied.

An infection following an endonasal approach is extremely rare and even if present, ordinary surgical procedure may readily arrest its progress.

In an endonasal approach method, we are not troubled with external skin scars which, no matter how negligible they may otherwise be, nevertheless detract from a more perfect esthetic result.

The use of chisels in rhinoplastic work seems to have many proponents. There is reason to believe a chisel is not as good as a saw. The force applied to the chisel can be transformed into the splintering of contiguous bones and not follow the directional course intended. Sometimes, the impact is translated into a fracture of the frontal bone. This is avoided by the use of saws which are placed securely in the position intended. The saws assure the operator of the desired direction of the fracture line.

In Fig 2 the lateral cartilages were superimposed and small strips of the alar cartilages were added to fill out the small saddle depression. The bones were left intact.

In Fig 4 the tip was raised by removing a triangular piece from the anterior part of the septum. The tip was also narrowed by cutting through the alar cartilage at its highest point.

CORRECTION OF NASAL DEFORMITIES

JOHN A. CINELLI, M D, *New York City*

The medical profession throughout the world is beginning to accept more favorably the reports on various rhinoplastic operations. As recently as a decade ago, most of the leading surgeons of the world spurned all efforts of the plastic surgeons to place their knowledge and ability on a proper footing with other specialties. Although the pioneers were looked upon with disdain by their colleagues, nevertheless their great confidence and persistency have blazed a new trail which today plays a major part in the drama of human lives.

Regrettably, this art of plastic surgery was mostly practiced by unscrupulous, quack doctors who reaped large fortunes at the expense of their often misinformed victims. The catastrophes which ensued at their hands placed this specialty in disrepute. But it was only with the obstinate persistency and confidence in this field by such great pioneers as Jacques Joseph of Berlin and J. Morestin in Paris that it began gradually to overcome the incredulity of the medical profession. Today, this art is being practiced by a great number of reputable surgeons throughout the world. It is almost unbelievable, and yet true, that the methods employed in nasal plastic operations today have been practically all devised by Joseph of Berlin. This astute surgeon even devised his own instruments which are being used by every surgeon doing this kind of work.

There was a reason why this subject had to come into being. From time immemorial there has been always a demand for esthetic perfection and men and women in every walk of life, in all the ages, have searched for the means to this end. It was only natural that the medical profession should seize upon this opportunity to apply its modern scientific basic antiseptic and aseptic principles to this field.

There are many factors which induce a person to apply for corrective rhinoplasty. The most important factor is psychological. The individual is at all

times conscious of his nasal deformity. He gradually develops an inferiority complex and dissociates himself from his fellow men preferring to be alone than to be what he believes the object of reproach and ridicule in their presence. He grossly exaggerates his plight in the society of men which he now desires to shun. Sometimes, in extreme cases, the thought of suicide possesses his mind. In these cases in which the deformity is not imaginary a corrective operation appeases a troubled mind and saves a useful member for society. It instantaneously restores confidence and hope for bigger things which make life worth-while. There are innumerable such instances which have been changed, as if by magic, from an inferiority complex to a complex on a plane with his fellow men. The surgeon must be on his guard when confronted with such cases. He must recognize that the need for rhinoplasty be a just and necessary one. He must not promise too much, for such an operation will not change the other features of the face except that they become more pronounced once the repugnant and objectionable nasal deformity is corrected.

Then there is the occupational conscious type factor. The patient has no inferiority complex but because he desires an amelioration of or advancement in his station of life he feels that his deformed nose is a detriment. In these acute days of difficult employment attractive features are sought along with ability and talent in many places. These patients will tell you that they cannot secure employment in their particular fields, because of their nasal handicap. Many of these are promised employment if they submit to the improvement of their appearances. Many young and even middle-aged promising actors and actresses comprise this group. Even the young business man who wishes to advance to an executive or more lucrative position in his firm seeks the plastic surgeon. There are those patients who desire a more esthetic nose but the



Fig 3 *Top left*—Front view, deviated nose to right and wide tip *Top right*—Nose straightened and tip narrowed *Bottom left*—Profile view, hump nose *Bottom right*—Hump removed

There are never any external incisions, hence no scars will be visible on the skin *

*In all patients whose photographs appear herein, the technic as devised by Joseph of Berlin was employed

Anesthesia

Local anesthesia is the method of choice. It consists of novocain two per cent and adrenalin 1 1000, twenty to thirty drops to an ounce of novocain. About twenty cc are used for the entire operation

The operation is not painful and there is comparatively no loss of blood. The eyelids and nose become swollen for a few days but then there is a gradual but steady return to normal. Usually a negligible systemic reaction is manifested in a rise of temperature within twenty-four

hours after the operation. The patient is permitted to get out of bed twenty-four hours after the operation provided the temperature is normal as is usually the case. Depending on the type of operation the patient may remain in the hospital from two to seven days.

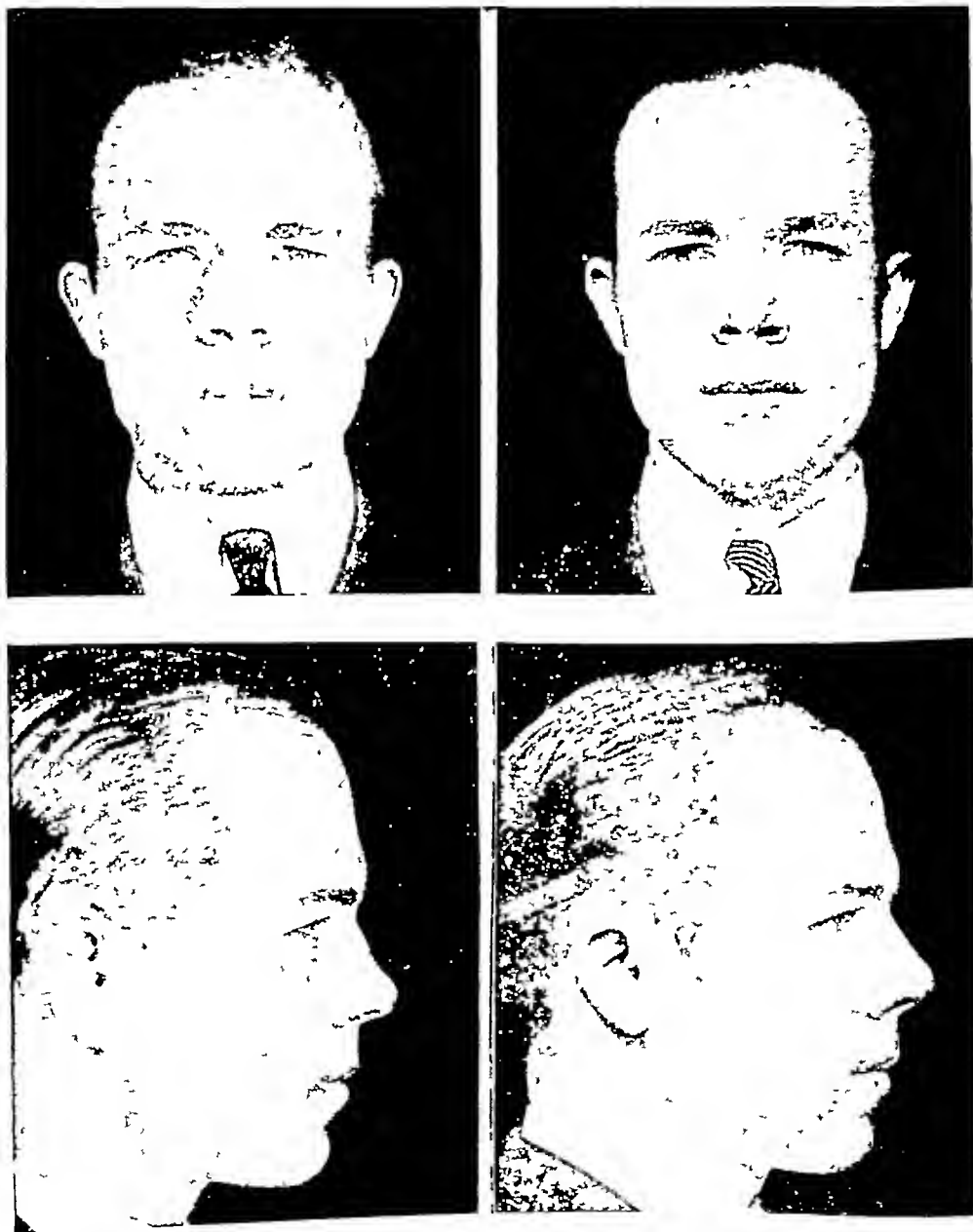


Fig 2 *Top left*—Front view, wide tip *Top right*—Tip narrowed *Bottom left*—Profile view traumatic saddle nose. *Bottom right*—Saddle nose corrected by superposition of the lateral cartilages with addition of strips of alar cartilages

Technic of Operation

The needle is first inserted subcutaneously along the bony dorsum just below the glabella notch. The bony and cartilaginous dorsum is infiltrated. Then the needle is turned laterally to either side infiltrating the areas above the nasal bones and upper and lower lateral cartilages. The second injection is made between the posterior border of the columella and anterior margin of the septum. This is infiltrated in its entire length, from the tip of the nose to the

gauze impregnated with ten per cent cocaine. After five minutes the gauze is removed.

A nasal speculum is used to expose the nasal cavity. The inferior border of the upper lateral cartilage protrudes visibly into the nasal cavity. A fine double-edged Joseph's knife is inserted at this point. It is passed gently and slowly over the upper surface of the upper lateral cartilage and just beneath the skin. The knife does not go beyond the upper border of the upper lateral cartilage



Fig 5 *Left*—Long nose and bony and cartilaginous hump *Right*—Hump removed and nose shortened.

anterior nasal spine. Then the fibrous space between the upper border of the lateral crus of the alar cartilages and the lower border of the upper lateral cartilage is infiltrated. This is repeated on the opposite side.

After these injections, a few minutes are allowed to elapse in order to give the anesthetic ample time to take effect. When the patient experiences no pain at the prick of a needle, the actual operation may then begin.

If a nasal hump is present, its size is determined by a previous profile analysis and the operation is planned accordingly. Before proceeding to the removal of the hump, the nasal cavity is packed with

Then a periosteal elevator is inserted in the same opening and a subperiosteal nasal channel is created parallel to the nasal bridge and up to the nasofrontal suture line. The same is repeated on the opposite side. Then a right Joseph bayonet-shaped saw is inserted in the right subperiosteal channel and placed at right angles to the hump to be removed. By an up and down steady movement the hump is sawed off. It usually includes part of the nasal bones, septal cartilage, and part of the upper lateral cartilages. When the sawing is completed, the hump lies loosely attached in the nasal cavity by some fibrous tissue. This is cut by a fine straight knife. The blade is car-

Preparation

The patient is given morphine sulphate gr $\frac{1}{4}$ about one half hour before the operation. The vestibular vibrissae are clipped. The nose is sprayed with S T 37 solution. The entire face is then

washed with tr of green soap. Then a mask moistened with bichloride of mercury 1:3000 is applied to the face and the patient is brought to the operating room. After the patient is properly draped the face is disinfected with tr of Metaphen.



Fig 4 Top left—Front view, wide tip Top right—Tip narrowed Bottom left—Profile view, drooping tip Bottom right—Tip raised and narrowed.

COLON BACILLUS CHEMICAL THERAPY

Degenerative Processes

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In seeking means for improving an associated ailment the author has developed a therapy for conditions which surpass the original goal in importance.¹ This new therapy consists essentially in administering four insoluble chemicals which are widely used separately and in various combinations with each other and with different medicaments in gastrointestinal disorders. When the daily dosage of each chemical is individually adapted there consistently follows improvement or subsidence in the manifestations of degenerative processes.

For some time it was not apparent why such benefits should follow this medication. It was early evident though that a special laxative action was developed, and its character suggested that it was probably due to the enhanced proliferation of some organism constantly present in the adult intestine. There were other special clinical responses. These were interpreted as supporting the theory of a modified intestinal flora. These additional responses would sooner or later become so disturbing to most patients that a special chemical was used for their prevention.

After the medication was thus developed a bacteriological study was made by Dr. John T. Myers of this city.¹ The essentials of some of his findings have been previously published, but their importance calls for repetition. Based upon these findings and personal clinical observations, authoritative theories are hereinafter outlined which explain how the therapy suggested may so modify the intestinal flora and its products that there consistently results diminished activity of *B. coli* in intestinal putrefaction, and subsequently improvement or subsidence in the manifestation of degenerative processes.

Special Laxative Action

When colloidal aluminum silicate and

an insoluble preparation of bismuth are given for a sufficient length of time and in the absence of decisive pathology, a laxative action of the bowel is induced. Properly adjusted in both dosage and formula, this laxative action is unusually effective and the stool becomes soft, well-formed, and nearly deodorized. The various relations of the laxative action to the therapy will be discussed in different sections of this article. Preceding and accompanying the laxative action is a modification of the intestinal flora.

Special Clinical Bacteriology

A demonstrable modification of the flora is reduction in the percentage of colonies that produce the metallic sheen which is typical of the colon group on Levine's eosin methylene blue media, as shown by Meyers.¹

In normal subjects and in patients before treatment fecal culture usually showed that less than six per cent of such colonies were unsheened. In patients under treatment whose bowels were not loose *a priori*, after the special laxative action had been established the numbers of such unsheened colonies usually ranged from seventy to ninety-eight per cent, and in an intermediate time the percentage was an intermediate number but varying in different patients, thereby indicating that there is a progressive development in the loss of sheen-producing power. These unsheened colonies responded positive to methyl red tests and negative to Voges-Proskauer, thereby establishing their identity as colon bacilli.

After the laxative action had been established, fecal cultures showed an increased percentage of colon bacilli over that found before treatment. This increase usually ranged from ten to thirty per cent.

ried forward underneath the free hump down to and in front of the anterior border of the septum, just behind the posterior border of the columella. This incision is extended to the anterior nasal spine. The hump is grasped with forceps and taken out. The resulting rough and jagged edges of the nasal bones are filed smoothly down with a rasp.

The next step is to create another subperiosteal channel on either side along the maxillonasal groove with a periosteal elevator. A groove director is inserted at the opening of this subperiosteal channel and a right-angle saw is gently inserted and placed in line with the maxillonasal groove. This saw is guided by the left free hand on the outside. Then by the same up and down movement the bone is severed along this line. The same

process is repeated on the opposite side. After the sawing is completed the bones are fractured inwardly by digital pressure exerted on the outside. The nose immediately becomes narrower and the gap created by the removal of the hump is now closed up by the approximation of the mobile, fractured nasal bones. The lower borders of the lateral cartilages now protrude prominently into the cavity and must be clipped in proportion to the shortening of the nose. The tip may or may not be corrected depending on its esthetic appearance. The columella is sutured to the septum in its new position with heavy black silk suture. A dental stent is applied to the nose. The stent and the suture are removed on the seventh day.

1021 PARK AVE.

TRANSFER OF TUMOR CELLS BY SURGICAL KNIFE

For years, on empirical grounds, all careful surgeons, have discarded, to be sterilized, instruments with which they have cut into malignant tissue, rather than continuing to use those same instruments in operative procedures when incising adjacent health tissue. This is particularly true in relation to biopsy and subsequent radical surgical treatment.

A careful study of the blades of knives used for incision, not only of tumor tissue but of apparently healthy tissue in the immediate vicinity of the tumor tissue, has shown that malignant cells are frequently adherent to the blades, says *The New England Journal of Medicine*. Saphir*, who carried on this study, has made direct smears from the blades of the knives, or washed them in saline and made smears from the saline suspensions. In every instance, smears made from knives that had cut through tumor tissue showed the presence of tumor cells, occasionally in very large numbers. At times, smears made from material on a knife used for excision of a nodule for biopsy revealed the presence of tumor cells, even though there was no gross evidence of tumor in the tissue traversed by the scalpel. Staining reactions indicated that these tumor cells were viable and, therefore, a definite source of danger. While not every tumor cell transplanted to

a new site is capable of growth, nevertheless, the danger is a real one and may explain certain of the recurrences in the surgical scar when apparently satisfactory excision had been done so far as removal of the tumor was concerned.

The added procedure of changing the instruments is so slight and is already in such general use that even a potential rather than an actual danger should be sufficient for every surgeon to insist on its being rigidly carried out.

CONFERENCE ON GOITER

The annual meeting of the American Association for the Study of Goiter will be held in Detroit, with headquarters at the Book-Cadillac Hotel, on June 14-16. A distinguished array of speakers is announced.

When John Lewis gets a little leisure we must have him organize the medical profession on an eight hour basis. Our rights have been trampled on for ages.—*Nebraska State Medical Journal*

The primary purpose of all medical organizations is to provide a high grade of service and to prevent exploitations of the sick of a community by charlatans.—C G Heyd, M D

*Saphir, O. *Surg Gyn & Obst* 63 775 1936

is the colon bacillus Herter⁷ described a colon bacillus diarrhea in which there are greatly increased numbers of *B coli* in the feces, with "no increase in virulence on the part of the bacilli"

Jordan's deduction makes possible a scientific explanation of how the proposed medicant, which Meyers has shown enhances the proliferation of *B coli* *in vitro*, and during the clinical use of which he has found in fecal cultures an increase in the number of colon bacilli, may induce a laxative action, or, when the medicant is excessive, a diarrhea. That the aluminum-bismuth combination does induce a laxative action is corroborated by Antoine and Rolland⁸ and other authors

Special Clinical Responses to Aluminum-Bismuth Combination

The special clinical responses to the aluminum-bismuth combination in addition to the laxative effect, might in part be explained by the *in vitro* action of *B coli* previously mentioned, i.e. an elaboration within the intestine of substances which are acidific, irritative, and absorbable, but varying in their manifestations in different patients. Pruritus ani, local dermatitis, and aggravation of chronic colitis appear to be clinical responses to local irritation. A decrease in the pH of the stool appears to be a fecal consequence to an increase in intestinal acid. Pain and tenderness in various tissues throughout the body—an aggravation of the previously developed degenerative processes, with articular pain in addition at times—appear to be clinical responses to the absorption of irritating substances. If the dosage of the aluminum-bismuth combination is further increased so that there is a distinct looseness of the bowel, these undesirable responses in susceptible patients may be overwhelming. There is sometimes wide variation in individual responses to only slight changes in the medication.

Special Clinical Responses to Neutralizing Chemical with the Aluminum-Bismuth Combination

After the special laxative action has

been developed one of the chemicals that may be administered to neutralize the irritating substances within the intestine is calcium carbonate⁹. As has been previously noted, this is the chemical used in the laboratory to neutralize the acid elaboration of *B coli* in sugar fermentation. Calcium carbonate is insoluble and nonabsorbable, so whatever substances it neutralizes clinically must be within the intestine. Of course, some metabolic products may be buffered with this insoluble chemical, but the clinical responses indicate that the major neutralization and adsorption are with products that are more purely acid, such as occurs with an enhanced proliferation of *B coli* in sugar fermentation and termed "irritant acids and gas" by Jordan. The pH of the stool increased with this neutralization.

When calcium carbonate was administered so as to be mingled with these adventitious products, subsidence or improvement was consistently observed in the symptoms or scientific findings of the following degenerative processes, chronic colitis, osteoarthritis, neuritis, myalgia, arteriosclerosis, angina pectoris, hypertension, keratitis, conjunctivitis, glaucoma, incipient nephritis, and some types of periodical headache. The initial intestinal condition is considered to be enhanced proliferation of putrefactive bacteria. Colitis is believed to be in the usual early sequence. No attempt has been made to explore the whole field of degenerative processes that are responsive to this special chemical therapy. Brief case reports illustrative of some of the degenerative processes of which the manifestations have been observed to be favorably and consistently affected, were given in the preliminary report¹.

Corroboration by Comparative Effects of Colon Bacillus Vaccine

The use of colon bacillus vaccine by Mateer et al from which they report favorable responses in chronic colitis and some associated conditions tends to corroborate our fundamental propositions.

1 Various degenerative processes may be caused by the colon bacillus in an environment of sufficient putrefactive organisms

Special *in vitro* Bacteriology

Cultures of whole fecal flora were inoculated into a tube of dextrose broth and into another such tube to which 0.5 per cent of the medicament had been added. Transfers were made at different intervals from these tubes. Plates were made on EMB medium at each transfer. The results are given in Table I.

When the cultures were left standing four days those containing the medicament were viable while those in the control had died, and after being cultured for two weeks in the presence of the medicament the colon bacilli were still living. When the culture period was two to four days there was no change shown in the sheen-producing power, but when

ments more sugar. That is, these acid elaborations, according to concentration, impair or stop the fermentation of sugar by the colon group.²

Diversion of *B. coli* Activity

Jordan³ says, "Colon bacilli of human origin are practically devoid of power to dissolve and peptonize native proteids such as casein and egg-albumin. It is therefore only in the presence of putrefactive anaerobes or other bacteria capable of peptonizing proteids that colon bacilli aid in excessive intestinal putrefaction." *The enhanced proliferation of B. coli tends to suppress putrefactive organisms.* "Its possible antagonism to certain putrefactive bacteria, a fact which

TABLE I.—PERCENTAGES OF TYPE OF COLONIES OF EMB PLATE WITH WHOLE FECAL FLORA

May 5 0.5 98 per cent sheened	May 7 Less than one per cent unsheened	May 9 Less than one per cent unsheened	May 11 Less than one per cent unsheened	May 15 Less than one per cent unsheened	May 19 Less than one per cent unsheened	June 4 Large number non-sheened colonies.
0 98 per cent sheened.	Less than one per cent unsheened	Less than one per cent unsheened	No coli observed Enteric types only	Control lost.		

cultured for two weeks in the presence of the medicament there were large numbers of unsheened colonies. These unsheened colonies on further tests proved to be colon bacilli.

Colon Bacillus Elaborations in the Laboratory

In the test tube, *B. coli*, in the presence of carbohydrate and protein, elaborates numerous acids and various metabolic products. Some of these elaborations may be irritative and absorbable. The amount and character of part of these irritative products depend upon the specific fecal flora used in the tests. That is, some of the irritative and absorbable bacterial elaborations will depend upon the difference in intestinal environment of each patient to which these bacterial floras are exposed.

Ford states that calcium carbonate is used to neutralize the acids elaborated in the fermentation of sugar by *B. coli*. And when these products of this group of organisms are so neutralized it fer-

has been demonstrated in interesting studies by Bienstock and Tissier and Martelly⁴ is considered by Zinsser and Bayne-Jones⁴ to be one of the most important functions of the colon bacillus. Park and Williams⁵ also say that members of the colon group act antagonistically to many of the proteolytic bacteria in the intestinal tract, thereby inhibiting putrefactive processes.

Since *B. coli* does not initiate proteolysis, the suppression of putrefactive organisms by its enhanced proliferation diverts *B. coli* to fermentative activity, thereby lessening its elaborations in putrefactive processes and increasing its elaborations in sugar fermentation. "Excessive sugar fermentation by *B. coli* with liberation of irritant acids and gas," Jordan says, may cause "diarrhea."³ The report of Mateer et al.⁶ on the beneficial effect of colon bacillus vaccine in "chronic functional diarrhea" seems to support Jordan's deduction. For the only bacteriological finding in "diarrhea" mentioned by these investigators

while enemas, additional magnesium hydroxide, or other mild laxative is given as a supplement. Occasionally the above dosages are increased.

After the laxative action is developed calcium carbonate is administered daily in such an amount as will neutralize the adventitious intestinal products then elaborated. The amount required has usually ranged from 0.7 to 2.5 grams, it being an individual adjustment. Too much calcium impairs the effectiveness of the laxative action and apparently irritates the intestinal mucosa.

Since the chemicals are administered over long periods of time there must be a finer individual adjustment of dosages than is required in short periods of use. For various reasons, changes develop from time to time in dosage requirements.⁹

After the laxative action is developed an adjustment is made in the dosage of the aluminum or bismuth preparation unless the maximum amount of each is required to maintain the laxative action. Since the laxative effect from the viewpoint of technic is produced by the combined actions of bismuth and aluminum silicate, the dose of one of these preparations (usually the bismuth) is reduced and used as the variant in controlling the laxative action and the full desired daily amount of the other given. This often is preferable to reducing the dose of both of these preparations, because there usually is need of more sedative effect upon the intestinal mucosa than is secured by proportionally reducing the dose of both.

When the bowel is loose *a priori* either the bismuth or aluminum silicate must be given in reduced dosage from the beginning. In this class of cases, calcium carbonate is given at the beginning of medication.

To suspend the chemicals when they are added by the patient to fluid, about one-twelfth of the total mixture by weight should be powdered acacia, for flavoring, one-eighth may be sucrose. The mixture will roughly have a volume that is double the weight. A small medicine glass graduated in cubic centimeters and

drams is used by the patient in measuring each dose of the powder.

The composite medicament is usually directed to be taken in a glass of hot water on first arising and some interval before breakfast, or on retiring and two or three hours after food, or in divided doses at these times. If there is an excess of hydrochloric acid it should be taken at the proper interval after meals to neutralize the excess of this acid.

After the laxative action is established the medicament is directed to be taken in the minimum amount required to produce a stool that is soft but well-formed. Looseness of the bowel must be avoided. This requires a constant cooperation on the part of the patient in adjusting the daily dose to the proper laxative effect.

Diet

A liberalized, well-balanced, smooth diet with abundance of mineral and vitamins is prescribed. Fruit juices are freely permitted, with a proper interval from the medication. Acidulous or cultured milk is excluded. Patients who previously have had cultures of the acidophilus group implanted or colonies developed by diet may redevelop such colonies while under this medication with only a moderate daily amount of milk. The elaboration of acid within the intestine by such organisms seriously interferes with the proposed therapy. For one of the essentials in this colon bacillus chemical therapy is neutralization of intestinal acid¹—the antithesis in this respect to the Metchnikoff treatment.¹⁰

Summary in Order of Sequence

- 1 Aluminum-bismuth combination enhances proliferation of *B. coli*.

- 2 Suppression of proteolytic bacteria and consequent reduction in metabolic products elaborated by *B. coli* fermentative activity of *B. coli* increased.

- 3 "Excessive sugar fermentation by *B. coli*" "liberation of irritant acids and gas" "diarrhea," or mild laxative action when aluminum-bismuth combination is properly controlled.

- 4 Manifestations of local irritation (aggravated colitis, pruritus ani, derma

2 The chemical therapy suggested modifies the intestinal flora and more particularly the colon bacillus and its elaborations thereby favorably affecting the manifestation of degenerative processes

General Effects of Vaccine

A stock colon bacillus vaccine was used by Mateer et al.⁶ They report favorable results in chronic colitis, chronic functional diarrhea, colon distress, spastic constipation, and associated chronic headache and toxic vertigo. They further add

Side Effects

"Aside from the effects noted above, B coli vaccine therapy has been noted to have certain important and gratifying side effects. These occur much too frequently, when vaccine therapy is employed to be explained as a mere coincidence. Many of these patients report a striking improvement in their general feeling of well being, such as they have not noted in many years. This subjective relief is often reflected in their general appearance, increased appetite, and in some cases, in increase in weight."

In the chemical therapy the "side effects" have been previously reported as improvement in appetite, digestion, and nutrition lessened flatulence, pink color of skin, lessened irritability, improved reaction time, more optimistic psychology, and markedly improved vitality.¹

Limitations

Mateer et al. say, "The most important limitation rests on the observation that the desirable therapeutic effects obtained are not permanent. If one gives a single course of vaccine therapy, with no follow-up injections, after four to twelve months numerous patients note the good effect of the vaccine 'wearing off.'" So in some cases "advice has been given to avoid subsequent loss of the vaccine effect, by obtaining a single vaccine injection about once a month."

In the colon bacillus chemical therapy also the symptoms usually return but sooner after discontinuance of the medicament.¹ Therefore it has usually been recommended that this chemical therapy be continued over long periods of time

and it has been so used (more than six years in some cases) with no detrimental effect detected

Mateer et al. further say "In cases with no evidence of an arthritic tendency, or rare occasions, following a B coli vaccine injection, slight joint pain, lasting a day or two, has been encountered. In such cases vaccine therapy has been discontinued at this point."

In the chemical therapy the same effect sometimes follows overdosage of the laxative agents or underdosage of the neutralizing agent. Proper adjustment of the dosage of the different chemicals corrects the undesirable effect, and the therapy is continued.

In the colon bacillus vaccine therapy an overdose of the vaccine is followed by looseness of the bowel, just as occurs in the chemical therapy with an overdose of the medicament.

While there is no proof of the mechanism which induces these similarities of effects it is possible that the enhanced proliferation of colon bacilli that follows the medication may produce autovaccination due to the increased liberation and absorption of bacterial proteins as a result of enhanced bacteriolysis. Some of the theories advanced concerning changes induced in the intestinal flora may not prove to be valid, yet this in no wise detracts from the observation that manifestation of improvement in various degenerative processes consistently follows the therapy proposed.

Technic of Medication

If the bowel is constipated and not subject to periods of looseness the usual practice is to administer daily 13 grams bismuth subcarbonate and about three grams of colloidal aluminum silicate (kaolin). The aluminum silicate is potentiated with about twenty per cent of an insoluble hydroxide. Aluminum silicate is then effective in smaller amounts. Magnesium hydroxide is used when the bowel is constipated, aluminum hydroxide when the bowel is loose.

This dosage is continued until the special laxative action is developed. The time required for this development varies from a few days to several months. Mean-

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while enemas, additional magnesium hydroxide, or other mild laxative is given as a supplement. Occasionally the above dosages are increased.

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drams is used by the patient in measuring each dose of the powder.

The composite medicament is usually directed to be taken in a glass of hot water on first arising and some interval before breakfast, or on retiring and two or three hours after food, or in divided doses at these times. If there is an excess of hydrochloric acid it should be taken at the proper interval after meals to neutralize the excess of this acid.

After the laxative action is established the medicament is directed to be taken in the minimum amount required to produce a stool that is soft but well-formed. Looseness of the bowel must be avoided. This requires a constant cooperation on the part of the patient in adjusting the daily dose to the proper laxative effect.

Diet

A liberalized, well-balanced, smooth diet with abundance of mineral and vitamins is prescribed. Fruit juices are freely permitted, with a proper interval from the medication. Acidulous or cultured milk is excluded. Patients who previously have had cultures of the acidophilus group implanted or colonies developed by diet may redevelop such colonies while under this medication with only a moderate daily amount of milk. The elaboration of acid within the intestine by such organisms seriously interferes with the proposed therapy. For one of the essentials in this colon bacillus chemical therapy is neutralization of intestinal acid—the antithesis in this respect to the Metchnikoff treatment.¹⁰

Summary in Order of Sequence

- 1 Aluminum-bismuth combination enhances proliferation of *B. coli*
- 2 Suppression of proteolytic bacteria and consequent reduction in metabolic products elaborated by *B. coli* fermentative activity of *B. coli* increased
- 3 "Excessive sugar fermentation by *B. coli*" "liberation of irritant acids and gas" "diarrhea," or mild laxative action when aluminum-bismuth combination is properly controlled
- 4 Manifestations of local irritation (aggravated colitis, pruritus ani, derma

titis) and of systemic irritation (neuritis, myalgia, articular pain, etc.)

5 Additional insoluble chemical neutralizes the irritant intestinal products

6 Subsidence of symptoms of local and systemic irritation improvement in manifestations of degenerative processes

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References

- 1 Coburn, R C *Medical Record*, p 391 Nov 4, 1936
- 2 Ford, W W *Text Book of Bacteriology*, p 496 Saunders, 1927
- 3 Jordan, E. O *Text Book of General Bacteriology*, 11th Ed p 288 Saunders, 1935
- 4 Zinsser, H and Bayne Jones, S *Text Book of Bacteriology*, 7th Ed., p 556 Appleton, 1934
- 5 Park, W H and Williams, A W *Pathogenic Microorganisms*, 10th Ed, p 430 Lea and Febiger, 1933
- 6 Mateer, J G, Baltz, J I, Fitzgerald, J, and Woodburne, H K. *American J Digest, Dis and Nutrition*, p 621 Dec. 1935
- 7 Herter, C A *Bacterial Infections of the Digestive Tract*, p 153, Macmillan
- 8 Antoine, E and Rolland P *Arch des Maladies de l Appareil Digestif et des Maladies de la Nutrition*, 18 730, 1928
- 9 Coburn, R. C *Medical Record*, p 553 Dec. 16, 1936
- 10 Metchnikoff, E. *Prolongation of Life* 1908

WHO IS RESPONSIBLE?

Who is responsible for making maternity safe? The obligation rests firmly upon four groups, Dr George W Kosmak said in a recent address before a mass meeting on maternity care in Rochester, N Y—the husband and wife, the physician, the nurse and midwife, and the general public

"It is easy to understand why husbands and wives seek a physician who can provide a simple, easy, painless childbirth," he said "Often a nervous, emotional woman will demand that her physician promise to give her anesthesia so that she will be relieved of all pain, and these appeals are sometimes difficult to resist Prospective parents, however, should realize that every physician will do all in his power, within the realm of safety, to ease the pain of childbirth but that certain routine efforts to relieve pain tend to increase the need for operative interference and to multiply the danger of infection and other complications"

When our American women started to go to hospitals in increasing numbers to have their babies, this was held as a solution to the problem of high maternal death rates, according to Dr Kosmak It was generally assumed that the hospital is safer than the home "But there is abundant evidence," he said, "that hospital confinements are not necessarily safe confinements, and in fact that the degree of safety varies as the hospitals and their attendants vary in competence The doctor selected by the prospective mother and father assumes a great responsibility His attentions should begin in the early months of pregnancy and before the time for labor comes He should know whether this is likely to be normal or difficult A certain proportion of accidents are unavoidable but these have been shown to be small in number compared with those complications which may be attributed to carelessness in unskilled and untimely inter-

ference by the physician and in improper environment

"The physician should be ready for unexpected accidents and abnormalities Many of these can be recognized long before delivery This may require skill but if it is exercised at an early time will often prevent untoward consequences I have every confidence that in the future the skill and standing of an obstetric attendant will be judged less by his operative dexterity than by his ability to conduct a labor in accordance with the normal mechanisms of this process, unless specific indications warrant interference

"It is a great satisfaction to record that the medical profession is accepting more fully the responsibility for improving conditions," he continued "Physicians in high standing in many places are devoting a great deal of their time to looking into the cause of maternal deaths in their communities and are actively directing efforts to improve available maternity facilities

"If the public and the medical profession were to encourage adequate education for nurses and midwives so that they could do in this country what they do in many foreign countries with death rates less than ours, some of the difficulties in improving maternity would disappear If properly educated, experienced and supervised the midwife could act as a valuable assistant to the physician in all normal cases"

It is only when an aroused and interested community begins to ask questions, Dr Kosmak thinks, that proper attention will be given to improving maternity care "I firmly believe that an inventory by the community of its obstetrical facilities will do much to engender a spirit of cooperation between those most closely interested—the prospective mother, her attending physician and the nurse"

ULCERATIONS OF THE NASAL MEMBRANES AND PERFORATION OF THE SEPTUM IN A COPPERPLATING FACTORY

Unusual and Sudden Incidence

MICHAEL H BARSKY, M D , *New York City*

Ulcerations of the mucous membranes and perforation of the nasal septum associated with the use of chromium and chromium compounds in industry have been recognized for some time

The literature contains no reference to such nasal disorders related to copperplating and it seems desirable to place on record the following occurrence

In March 1936 two employees of a copperplating establishment reported at our office for treatment of infected abrasions of the hands, and peculiarly enough, it was noted that both were suffering from acute coryza. When questioned concerning upper respiratory ailments both complained of persistent running nose, nasal bleeding and nasal obstruction, all of which were of recent origin. Further, they volunteered the statement that many of their coworkers suffered from similar complaints.

Nasal examinations of these two men revealed the presence of shallow ulcerations of the nasal septum and turbinates. As a result of these unusual findings, all of the employees of the plating department of this establishment were examined and a hygienic and environmental study of the premises conducted.

Description of Plant

The factory was engaged in the manufacture of pocketbook frames and similar sundries. It was situated in an old loft building and occupied the entire sixth floor, an area of 40,000 square feet. A space in the northwest corner measuring seventy-five by fifty feet was set aside as the plating department. Its northern wall was solid brick. The west wall, also brick, faced the river and contained eight windows of usual size and construction. The south and east walls consisted of three-quarter inch pine boards

with rather large unprotected openings serving for ingress and egress. In this room were, five bronze plating tanks, four nickel-plating tanks, one large acid (hard) copperplating tank and four soft copperplating tanks, tumbling barrels, storage crocks containing copper, bronze, and nickel solutions, crocks of potash and soda solutions, acids, etc. A small section ten by fifteen feet in the northwest corner of the plating department was partitioned off by three-quarter inch pine boards and served as the acid room. The arrangement of the tanks is shown in the floor plan (Fig 1).

Chemicals Used and Plating Technic

All the plating tanks were approximately 300 gallon capacity, except for the considerably larger acid copper tank. The solution contained in the copper tanks was composed of eight ounces of copper cyanide and eight ounces of sodium cyanide to each gallon of water, in the bronze tank, six ounces of copper cyanide, six ounces of sodium cyanide, and one-half ounce of zinc cyanide to each gallon of water. All the tanks were theoretically operated at 85° F, voltage three, amperage fifty.

In general all of the chemicals and raw materials were those commonly used in copperplating, namely, copper sulphate, nickel sulphate, a potash cleaner known as "Clepo," sodium cyanide, sodium hydroxide, copper cyanide, zinc cyanide, Chipso, boric acid, sodium bisulphite, soda ash, sodium chloride, sulphuric, nitric and muriatic acids, ammonia, hydrogen peroxide, Oakite, and a grease solvent containing twenty-four per cent by weight of trichlorethylene.

It is important to note that all of the plating was confined to copper, bronze, and nickel. No chromium plating was

done and no chromium or chromium salts were used in this plant

Personnel

At the time of our study, there were seventeen regular full time employees in the plating department, in addition to which two other employees, a forelady and the electrician, frequented the plating room in the course of the day

gestion of the nasal mucosa with superficial sloughs of varying size on the anterior portion of the septal wall, middle and inferior turbinates. In a large percentage, ulcerations of considerable size and depth were present at these sites. Two of the employees developed septal perforations during the course of observation and treatment. In all cases, pharyngeal congestion was pronounced. The essential facts with reference to the eigh-

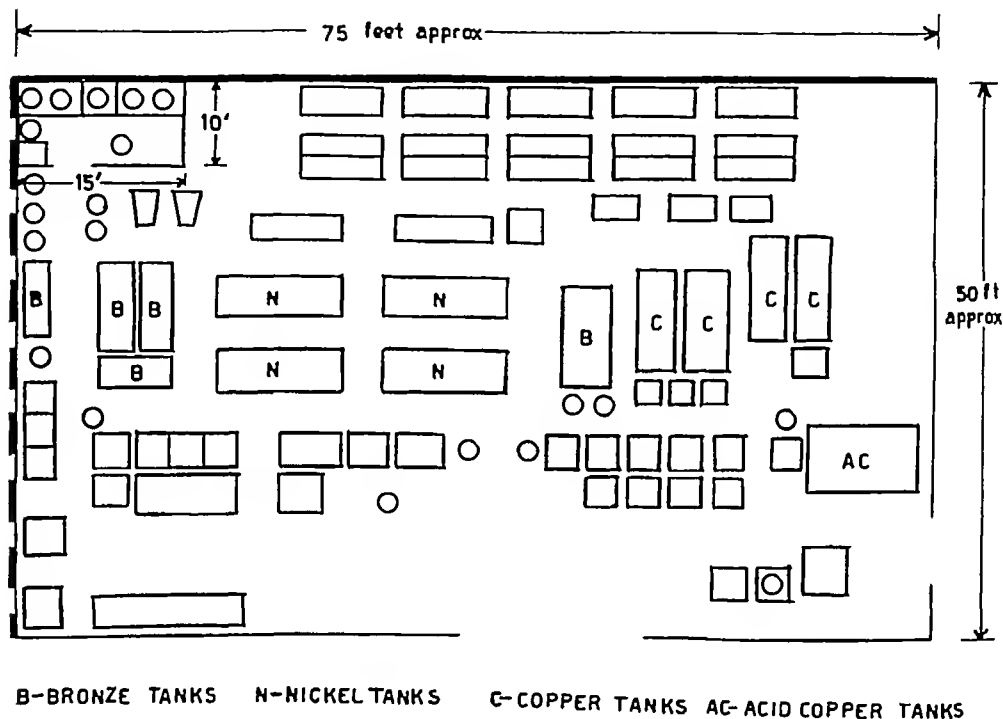


Fig 1

Of the seventeen regular employees, nine had been engaged in this particular work for a short period of time ranging from one to eight weeks. The remaining eight were veterans with several years experience. One of these had recently been promoted to the position of foreman. Neither the new nor the old workers gave a history of nasal disturbance prior to this episode, but now all were affected.

Medical Findings

The characteristic lesions uniformly found were an intense widespread con-

teen cases are summarized in Table I, and the nineteenth case, that of the departmental foreman is herein described in detail separately because his case came to autopsy.

The departmental foreman, age twenty-two, reported at the office two weeks after our investigation had been in progress. He had been engaged as a plater with the present employer for six months, the last two of which, he had been acting as the foreman. In his experience of eight years with plating operations, he had never suffered any nasal complaints.

His present complaints dated back two months and consisted of "alternate running and dryness of the nose, nasal bleeding

obstruction and headache—teeth all hurt” There was no conjunctival disturbance. No skin lesions. No cough or vomiting. His general health had been poor and he had lost weight. The acute symptoms developed two days prior to the examination and were severe pain and swelling of the nose. He had remained at work.

Examination General condition poor, appeared acutely ill, temperature 98.8, pulse ninety-eight. *External Nose*, Right ala swollen and very tender, circum-

ous sinus thrombosis, basilar meningitis, septic pleurisy, septic pneumonia, and septic infarct of the right lung

Past Record

In addition to the preceding personnel findings a survey of the past records of this employer was made. There was found one instance of identical complaints relating to a plater employed for one month who developed acute coryza, etc

TABLE I

Case	Duration plating exposure elsewhere	Duration present exposure	Duration of present complaints	Course and end result
1	None	Six weeks	Two weeks	Small anterior perforation
2	None	Three weeks	Three weeks	Large anterior perforation
3	None	One week	One week	Cleared up completely in several weeks
4	None	One year (Electrician)	Three weeks	Cleared up completely in several weeks
5	None	One week	One week	Cleared up completely in few weeks
6	None	Two years	Three months	Cleared up completely
7	None	Seven weeks	Three months	Cleared up in several weeks
8	None	Eight days	Five days	Had an old perforation
9	Three years	One week	Six days	Cleared up completely
10	None	Eight days	Six days	Cleared up completely
11	None	Four weeks	Two weeks	Did not return for further observation.
12	Four years	Five months	None	Cleared up promptly
13	None	Two weeks	Eleven days	Cleared up completely
14	Five years	Three weeks	Three weeks	Slow recovery
15	None	Two weeks	Eleven days	Reaction persisted several months.
16	None	Three years (Forelady)	Three to four weeks	Cleared up completely
17	Seventeen years	Two months	Six weeks	Cleared up promptly
18	None	Nineteen months	Several weeks	Slow recovery
				Reaction persisted several months
				Gradually subsided.

scribed tender swelling about three-quarters of an inch in diameter just to the right of the bridge. *Internal Nose*, On the lateral wall of the vestibule, on the right, there was a small carbuncle, partially ruptured and covered with a black crust. Septum and both middle and inferior turbinates covered with heavy crust and slough, underlying which, were ulcerations in spots. *Throat*, Congestion of the faucial pillars, uvula and posterior pharyngeal wall. Tonsils enlarged and inflamed. *Heart and lungs* Normal. X-ray of thorax was negative. Noticeable pallor of skin and conjunctiva.

Because of these findings and the possibility of grave complications, he was immediately admitted to the hospital. That night, temperature rose to 104, shortly after, the lesion spread to the right eyelid. His course was rapidly retrograde. He developed pneumonia of the left lower lobe and signs of meningeal irritation. Death ensued in five days.

Autopsy findings included ulceration of the septum, middle and inferior turbinates, carbunculosis of the tip of the nose, cavern-

The rhinologist reported an early erosion of the nasal septum. Exposure was discontinued and he was under treatment for seven weeks. A full recovery followed. No efforts were taken at that time to trace or eradicate the cause of the trouble.

Plant Conditions

The plant had been in operation under the present management for several years. It was claimed that the same chemicals and procedures had been in use unchanged during that time. About four months before, however, as a result of the objection from employees in the adjacent departments to the irritating odors, wooden separating partitions (described earlier) were erected.

On repeated visits to the premises, a strong odor of hydrocyanic acid, excessive moisture, and general bad house-keeping were apparent. These conditions prevailed to a greater degree late in the afternoon after the plant had been in

operation for several hours. In the plating room there were no provisions for artificial ventilation. The ventilation (natural) was dependent solely on the opening of the windows and the gaps in the wooden partitions. In the acid room over the acid crocks there was an exhaust hood and a small suction fan.

Study of the plating operation disclosed that as a result of changes in the process and the working conditions, there had been an increase in the amount of spray emanating from the cyanide baths. The alkaline mist thus produced contained sodium copper cyanide, free sodium cyanide, as well as caustic soda. The excessive spraying resulted from the operation of the cyanide baths of an abnormally low metal content at increased current and higher temperature. Continued study of the problem directly traced most of the atmospheric contamination to one bronze and four soft copper plating tanks. These were located farthest from the windows which served as the main source of ventilation and which in cold weather (February) were closed.

The mist or spray thus generated was inspired and produced by its local accumulative action, the lesions previously described. Where there was mouth breathing, the nasal passages were relatively free. The reaction occurred chiefly in the pharynx and larynx.

In brief, the direct causes of the disturbance were (1) Improper control of baths, (2) Failure to exhaust the spray thus produced, (3) Inadequate general ventilation, Bad general housekeeping was the contributing cause.

Subsequent reports of the chemical engineers were in accord with this general explanation and we are privileged to quote from their report as follows:

The partitions, built several months ago, restricted the natural ventilation, so that any unfavorable condition that may have existed prior to that time was accentuated. There was a strong smell of hydrocyanic acid and cyanogen gas which, although not a desirable condition, would not account for the lesions suffered by the workers. These lesions were traced to a spray arising

from the copperplating tanks, which menace would be corrected by installation of the necessary ventilating equipment. Further, it was found that the metal content in the brass tank and in two of the copper tanks was considerably below the amount customarily used. A low metal content causes an abnormal amount of spray. Contributing causes were improper housekeeping.

Suggestions were made as to proper floor drainage, use of additional floor boards which would serve to raise the heads of the workers a few inches more above the tanks and finally, steps to be taken to avoid undue heat and excessive current by the installation of an ammeter, a voltmeter, and a thermometer attached to each tank. The four things to be watched were the ventilation, the proper control of the solutions, the maintenance of the proper current and temperature in each tank, and general housekeeping.

As a result of our findings, the plating department was shut down for several weeks during which time the recommendations of the consulting engineers were carried out and then work was resumed under experienced supervision and proper control. The previously manifest disturbance was effectively corrected. There were no recurrences of the difficulties in the old workers, nor did any appear in new employees.

A review of the literature has failed to disclose any reports of ulceration of the nasal mucosa or septal perforation in the copperplating operations. Cases are mentioned in connection with copper smelting. These are attributed to the inhalation of dust and the deposition of arsenious oxide on the nasal mucosa. There is a record of one case of ulceration of the nasal septum of an employee engaged in dipping parts in solutions of nitric and sulphuric acids. The man, however, did not work at the cyanide tanks. Undoubtedly, lesions similar to those described have been overlooked in the past and constitute a definite industrial hazard readily controlled by frequent check-up of the process and working conditions by repeated examinations of those exposed.

300 MADISON AVE.

An indelicate medical editor out in one of the wild prairie states suggests that the

favorite flower of the diabetics is the sweet pea

STERILITY AS A CLINICAL PROBLEM IN WOMEN

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Sterility should be regarded as a symptom rather than as a disease entity. In a strictly limited sense it denotes the inability of the woman to become pregnant. The term admits of various interpretations however. In ordinary usage it applies also to the woman, who, though she is able to conceive, is nevertheless unable to procreate. In this latter and broader sense, the fact that conception may occur is of little moment if, due to such accidents as abortion or ectopic nidation, the pregnancy does not progress to the period of viability of the child.

An absolute sterility is one in which conception fails to occur. This may result from congenital defects or major pathological conditions. The absence or extreme maldevelopment of the uterus, and the presence of large uterine or ovarian tumors fall within this category. In relative or apparent sterility the ability to conceive and procreate a living child is not impossible, but difficult or unlikely under existing circumstances. Here the egg does not get a proper chance to become fertilized. If pregnancy has never occurred, the condition is referred to as a primary sterility. Secondary or acquired sterility refers to the failure of pregnancy to occur following a previous abortion or delivery. Using the above general classification, we are not concerned with the physiologic infertility associated with the menopause, lactation, menstruation, and the period immediately preceding or following it, or with the application of the so-called "safe period" championed by Knaus,¹ Ogino,² and others. Furthermore, we should not charge a woman with sterility without allowing her sufficient opportunity and time for becoming pregnant. In this respect the time factor is variable, depending in part on the age of the woman. Generally speaking, a woman may be said to be presumably sterile if conception does not occur within three years of

life with a sexually normal partner, provided, of course, that no contraceptive measures have been used. Polak³ has stated that only about seven per cent of women bear children after the third year of married life. Presumably he referred to the first pregnancy.

Incidence

Obviously it is difficult to gain exact figures as to the incidence of sterility within a population. Popular impression is apt to attribute sterility to defects of the female, whereas we know for a fact that the male should share the responsibility in a considerable percentage of cases. Many cases never come to medical attention since couples frequently will bear their lot silently and hope that nature will in time somehow remedy the situation. Various estimates (Polak,³ Crossen,⁴ Green-Armytage,⁵ and Meaker⁶) place the incidence of childless marriages at about ten per cent. In England, according to Green-Armytage, fifteen per cent of pregnancies end in miscarriage, and Meaker estimates that there must be some 2,000,000 childless couples of the child bearing age in the United States alone.

Several conditions are essential for a successful pregnancy, viz

- 1 Healthy active spermatozoa in sufficient numbers must be deposited to gain access into the cervical canal without being stopped in transit or inhibited by inimical secretions.

- 2 The ovary must yield normal mature ova.

- 3 The uterotubal tract must permit outward migration of the sperm and the inward transit of the fertilized egg.

- 4 A healthy and properly prepared endometrium must be in readiness for the nidation of the ovum.

Any defect in the above requirements may prevent impregnation. Frequently however the summation of multiplex

sub-threshold factors is responsible for sterility, and for this reason it may be a difficult task to assign the reason to any specific fault as it applies individually to either husband or wife. Reynolds and Macomber⁷ have suggested that apparently normal persons vary greatly in relative fertility. Thus a person of low fertility may succeed in reproducing when mated with one of high fertility, but may fail when mated with a person of lesser reproductive aptitude. In other words, the fertility of any given mating is the summation or product of the fertility of the two individuals concerned. These same workers observed that dietary deficiencies in fat soluble vitamins, protein, and calcium though they be too slight to produce ill health, in the animals studied, are nevertheless associated with a definite decrease in fertility.

Faulty diet, mental strain, and physical inactivity have been cited by Meaker⁸ as logical causes of depressed constitutional states resulting in sterility. It would be difficult to enumerate the whole list of similar contributing factors. These comprise a long list of local and general debilitating diseases, notably marked anemia, obesity, and tuberculosis. Syphilis has long been credited with being a major cause of infertility. Though the disease apparently does not hinder fertilization, it nevertheless frequently causes abortion. Subsequent pregnancies may be carried longer, and finally to term. If no disease is found, it is often assumed that the sterility is due to some functional disturbances. But to let the matter rest here, is to admit lack of inquisitiveness in the search for a more manifest cause. However, it would appear that psychosexual incompatibility along with frigidity and vagismus are obscure though real impediments to fertilization. A classical example of selective sterility is illustrated by the story of Napoleon and Josephine. Each was able to demonstrate fertility with another mate, but together they were fruitless. Although it is generally agreed that an orgasm in woman is no requisite to fertilization, strong sexual feeling probably increases the likelihood of impregnation, according to Crossen.

That industrial disease may play an important role in the etiology of sterility, is suggested by Irving⁹ who states that plumbism by influencing either the egg or the sperm may reduce fertility. Chronic morphinism and alcoholism have likewise been adjudged guilty in this respect.

The husband should not be absolved of guilt for a sterile mating without definite evidence of potency. Polak has estimated that about thirty per cent of the fruitless marriages are due to sterility of the male, while Naeggerath¹⁰ claimed that ninety per cent of sterile women are married to men who at one time have had gonorrhea. A zoospermia was found in over thirty-three per cent of 206 sterile marriages by Kehrer and Sanger.¹¹ Other observers^{5, 6, 12} likewise have placed the incidence of male responsibility in sterile marriages at twenty to fifty per cent.

The prominence of gonorrhea as the etiological agent in the causation of sterility is illustrated by the estimate of Polak that fifty per cent of these cases are due to the gonococcus. This organism may produce an orchitis which inactivates the sperm, or, by causing an epididymitis, may lead to blockage of the ducts. Cryptorchidism results in failure of the testes to develop. The testis may be rendered useless from a reproductive standpoint by such specific diseases as tuberculosis and syphilis. Atrophy of the testes may result from parotitis, alcoholism, drug addiction, or from chronic debilitating disease. Sexual exhaustion from excesses may produce an oligospermia with resultant marked diminution in the number of cells. Irving cites 100,000,000 spermatozoa per cc as a normal count. Although pregnancy is possible with a lesser count, its likelihood increases with a greater number of sperm.

Even though normal sperm cells are found, the male may still be at fault because of a hypospadias or premature ejaculations. Recourse is made to the microscope for determining the adequacy of the semen. One should note the number and activity of the spermatozoa. Deformities, particularly of the head, should

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be sought. If faults in the production or delivery of the spermatozoa are found, the man should be placed in the hands of a competent urologist.

The ovaries and other endocrine glands have a direct bearing on sterility. Green-Armytage found that forty-four per cent of his cases were due to genital hypoplasia. Anovular menstruation was found in some fifty-five per cent of the sterile women studied by Mazer and Ziserman,¹³ and in about twenty-one per cent of the cases reported¹⁴ that had complained of obesity and sterility despite the fact that they had regular uterine hemorrhages. Novak¹⁵ has also emphasized anovular menstruation as a cause of sterility. Bland and coworkers¹⁷ observed that primary deficiency of the anterior lobe of the pituitary gland is a noteworthy form of endocrine disturbance in sterile patients.

A diminished amount of female sex hormone in a considerable number of patients with sterility has been demonstrated by Frank.¹⁶ Marked displacement of the ovaries often diminishes the chances of pregnancy by making migration of the egg into the tube difficult or impossible. Fibrous adhesions following pelvic inflammation frequently bind down the ovaries so completely that escape of the ova is quite impossible. The fibrosing influence of radiation therapy is familiar. The intimate functional relationship between the pituitary and thyroid glands to the ovaries is generally recognized, and any significant derangement in these glands may become an important factor in the causation of sterility.

Developmental errors are prominent causes of sterility of the female. Among these may be included the partial or total absence of organs, malformations of the vaginal, cervical, or tubal orifices, underdevelopment or malposition of the uterus or ovaries. These serve as mechanical barriers to fertilization, and their discovery easily establishes the etiology of sterility. An atretic or resistant hymen, or a stenosed vagina, along with pain, may render the sex act impossible, painful, or incomplete. Postoperative cicatrices may likewise seriously inter-

fere with intercourse. Improper drainage of the vagina may be conducive to bacterial and chemical changes which result in spermocidal effects. A shallow vaginal vault or marked relaxation of the vaginal walls and perineum may cause effusion of the semen. The normal pH of the vaginal secretion is about four. According to Green-Armytage this is not particularly harmful unless an excessive amount is present in which event the sperm cells may be attenuated or killed within fifteen minutes or before they can reach the cervix, which like semen has an alkaline secretion with a pH of eight to nine.

That spermatotoxins may contribute to sterility is suggested by experiments on animals. Dittler¹⁸ found that female rabbits could be made sterile by the intravenous injection of fresh ejaculation fluid of the male rabbit. McCartney¹⁹ observed a similar phenomenon with rats. Kohlbrugge²⁰ stated that there may be a penetration through the genital epithelium and an invasion into the underlying connective tissue of the female rat and other rodents by spermatozoa after normal coitus. Waldstein and Ekler²¹ were able to demonstrate postcopulatory ferments which were not present prior to copulation and which led to the absorption of sperm. Mayer²² believed that sexual intemperance in women may lead to premature rupture of the follicles and thus cause sterility. He further stated that pregnancy frequently resulted after periods of sexual abstinence during the Great War, when the soldier husbands had infrequent leave from the front, the prolonged abstinence apparently remedying the sterility due to overloading of the genital tract with sperm. Vogt²³ likewise raised the question if sterility in women might not be the result of sexual excesses. It was his observation that often couples, whose matings had previously been sterile, become fruitful after periods of separation or abstinence.

Stenosis or atresia of the cervix is a readily understandable factor in the etiology of sterility. Hypertrophy of this organ, along with the mis-direction of its axis away from the receptaculum are

possible impediments to cervical insemination. In the experience of Wharton forty to fifty per cent of sterile women had a pathological cervical discharge. A tenacious mucous plug in the cervix not only serves as a mechanical barrier which makes sperm penetration difficult but the pus in which the cervix is bathed is actually lethal to the spermatozoa, according to Rubin.

The uterus itself may be the cause of sterility. An infantile uterus may be only a contributing factor, general genital hypoplasia representing the underlying pathology. The presence of a chronic infection of the endometrium may be the basic factor in sterility. The use of the stem pessary as a contraceptive device probably owes its efficacy to setting up a chronic endometritis which prevents proper nidation. An infected polyp may act in much the same manner. Fibroids are not at all necessarily incompatible with pregnancy. Their presence may however favor an abortion, their effects being largely proportional to their size and position.

Tubal disease is without doubt one of the most prevalent causes of sterility. Irving estimated that it is responsible for about twenty per cent of the cause of sterility in women. Occlusion of the tubes was responsible for 39.8 per cent of 2,000 sterile marriages that came under the personal observation of Rubin,²⁴ and Green-Armytage placed the incidence of this condition at about fourteen per cent. These computations appear quite representative. While endometriosis, tubal spasm, diverticulation, angulation, along with developmental errors of the tubes, contribute a fair proportion of cases of tubal occlusion, inflammatory causes predominate. Important in this respect are the infections resulting from abortions and septic puerperal states. Appendicitis may also lead to tubal occlusion by sealing the fimbriae. Tuberculosis may also be the etiological factor. Ranking about on a numerical par with postabortal infection, gonorrhea is a major cause of tubal sterility, and because of this fact gonorrhea has not only individual but also far-reaching racial significance.

Routine Procedures

Success in the understanding and treatment of sterility depends directly on painstaking and detailed attention to many contributing factors. Search should be made for as many possible causes as can be found or suggested. Cessation of the search after the discovery of one or two apparent etiological factors may lead to therapeutic failure. Correction of several or many sub-threshold influences will frequently be required to raise the fertility to a state where procreation is possible. Intelligent investigation calls for a detailed inquiry into the medical history as well as into the physical and psychosexual status of the patient. Discovery of the cause will suggest the procedure to be followed. Inquiry into the family history should reveal if the patient comes from prolific stock. The patient should be questioned about any serious childhood or adolescent disease which may have produced lasting and debilitating effects. The menstrual history should tell much considering the gonadal development. Special note should be made of the late puberty and of scant and painful menstruation. Significant weight changes may hint of endocrine disturbances. Acquired dysmenorrhea may suggest endometriosis. A story of lower abdominal pain or appendicitis may cause one to suspect tubal involvement. One should inquire concerning the type of contraceptives used and the duration of their use. Attempts should be made to determine the history of venereal disease by symptoms and by name. One should learn of the existence of any coital difficulties and of the psychophysical response. The husband may be able to furnish supplementary information on these latter points. In other respects too he must not be left out of the reckoning. The history of an induced abortion, particularly if followed by infection, may provide the all-important clue to the troubles at hand.

A complete general physical examination should follow the history. Any unusual bony development, girdle obesity along with abnormal quantity, distribution, and texture of hair may suggest a faulty endocrine endowment. Special

emphasis should be placed on the findings at pelvic examination. Anomalies of the vulva and hymen should be noted. Possible explanations for dyspareunia or nonpenetration may thus be readily ascertained. Any hypertrophy or atrophy of the labia minora or clitoris should be observed. In the vaginal examination an abnormal or excessive secretion should be studied and tested for relative acidity. Physical reasons for effusion of semen should be sought. The position and axis of the cervix should be ascertained and the accessibility of the external os to the seminal pool determined. Any lacerations or evidence of chronic infection should likewise be noted. The patency of the cervical canal and the character, and particularly the reaction and tenacity of the mucus should be determined. The uterus should be studied and examined for size, position, symmetry, and movability. Attention should also be given any thickening, swelling, fixation, or tenderness of the appendages. One should of course take notice of the presence of any pelvic tumors. The endometrium can be studied for evidence of ovulation by removing scrapings with a small curette. This can be done as an office procedure preferably just prior to an expected menstrual period. Study of the woman is not complete without blood counts, a Wasserman test, and examination of the urine. It may be necessary to perform general metabolism tests and to determine the level of various hormones by methods which Frank and others have described.

No major diagnostic or therapeutic procedure for sterility for the female should be begun without first excluding the husband as a causative factor. A condom specimen of semen will give information concerning the number, mobility, and morphology of the spermatozoa. The patient is instructed to wash the condom in clear tap water and dry it before use. After coitus, the sac is tied to prevent leakage and returned to the vagina where the contents may remain at body temperature until the patient returns for examination. This method, however, does not tell how the

spermatozoa will be effected by other local conditions within the vagina. To get more accurate information on this point, the procedures recommended by Huner²⁵ should be applied. The patient is examined at intervals shortly after normal coitus. It should not be necessary to state that the use of any lubricant is prohibited. The vaginal, cervical, and fundal secretions are studied microscopically to determine the presence, number, and condition of the sperm *in situ*. If healthy spermatozoa in ample numbers are found within the cervical canal two hours after coitus, the husband can probably be absolved of his part in a sterile mating.

Earlier a laparotomy was required to determine the patency or occlusion of the tubes in a case of suspected sterility. Rubin has devised a method, now in widespread use, to determine the patency of the tubes by gas pressure. It is possible to pass CO₂ or O₂ through the uterus and into the peritoneal cavity provided one or both tubes are open. In general about 100-150 cc of the gas under a pressure of 100 mm of mercury will suffice to produce a pneumoperitoneum, evidenced by a fall in pressure, by fluoroscopy, or an x-ray film. Subjectively the presence of a subphrenic pneumoperitoneum is generally denoted by shoulder or interscapular pain. With a stethoscope applied to the lower abdominal wall one may hear a characteristic gurgling sound as the gas escapes into the peritoneal cavity. If the tubes are occluded, the pressure should not be allowed to rise above 200 mm. A temporary spastic condition at the tubouterine junction may give a false negative test, but can generally be overcome by a preliminary injection of atropine. If three or four failures to pass the gas into the peritoneum in tests spaced at intervals of about one month are observed, one is probably safe in concluding that the tubes are blocked. It has been observed frequently that under the influence of gas pressure the fimbrial adhesions which caused the occlusions are lysed with re-establishment of patency of the tubes. The test thus has therapeutic as well as diagnostic value.

The introduction of the cannula into the cervix may have an additional beneficial action. For theoretical reasons the test should probably be performed a few days before the expected time of ovulation. The test should not be performed during the acute stage of a pelvic infection. Neither should it be applied during menstruation or immediately following a curettage lest endometrial fragments be driven into the tubes or peritoneal cavity. Some workers prefer to substitute for gas, a fluid medium which is opaque to x-rays. Iodized oils have been employed for this purpose. Objection to their use has been raised because of their failure to pass by a tubal spasm and because they may cause a local inflammatory reaction due to slow absorption. A good x-ray film, when such oil is used, may be of great value however in telling of the nature and position of an obstruction, thus facilitating any subsequent surgical procedure.

The method of sterility becomes quite obvious when the cause is discovered. The cause or causes however may be elusive. Every case must be individualized. All mechanical impediments to fertilization must be overcome. The correction of other contributing factors will include improved hygiene, and should lead to what stock-breeders are prone to call "good breeding conditions," meaning good physical condition. This takes into account adequate rest, exercise, and diet, and calls for correction of faulty modes of living. Evans and Burr²⁶ have stressed the importance of the anti-sterility vitamin E in animal experiments. The application of his findings to the human species may prove beneficial in some cases. The woman should keep an accurate menstrual calendar. This will aid in determining the time when conception is most likely to occur. In a large percentage of cases, ovulation occurs about eleven to sixteen days before an expected menstrual period. Efforts at fertilization should be concentrated during this period. Artificial lubricants may possess unsuspected spermicidal qualities and should be interdicted. The suggestion that the female may be sensitized by the sperm may be

followed by the recommendation of a restful marital holiday. If no physical basis of sterility is found, no major therapeutic procedure should be instituted until some three years after marriage except perhaps when the woman is over thirty years in which event the interval may be shortened.

Such an obvious minor local cause as an unruptured hymen can readily be treated by incision. An excessive acidity of the vagina may be corrected by a mild sodium bicarbonate douche, using a teaspoonful to a quart of warm water. This helps to dissolve the mucus from the cervix as well as to furnish an alkaline reaction. Systematic tamponing may be tried if the fornix is unusually shallow. On the other hand, if extreme relaxation of the posterior vaginal wall and perineum leads to the effusion of semen, an appropriate surgical repair is indicated. In the absence of an operation, the placement of a pillow beneath the hips has often been beneficial. If the cervix points away from the seminal pool, discission or partial amputation may be effective in furthering the likelihood of impregnation. Any cervical infection or severe laceration should be remedied. The use of a suitable pessary to correct retrodisplacement of the body of the uterus will also serve to direct the cervix backwards.

The finding of a stenosed cervix calls for ample dilatation. A curettage should be performed as a diagnostic procedure. This procedure should be done, when possible, during the premenstrual phase when one should be able to tell if ovulation has occurred. The curettage may in addition have definite therapeutic value by removing polyp or infected endometrium. Obvious tumors should be removed. When the curettage is done in conjunction with the Rubin's test, it should follow rather than precede the insufflation test. For chronic pelvic inflammatory disease a prolonged course of hot douches, and properly gauged diathermy treatments have great beneficial and frequently curative value. In recent years the so-called "Elliott treatment" has become quite popular in many circles.

The operations of salpingosotomy and hysterosalpingostomy have been em-

ployed with varying degrees of success. Details for these and allied procedures are available in modern textbooks. In cases of bilateral hydrosalpinx and pyosalpinx and severe chronic salpingitis there is little hope from operative procedures as they relate to sterility. Plastic operations on the ovaries may also lead to subsequent pregnancy. One should however shy of creating unwarranted hope from any operative procedure.

The subject of artificial insemination, a method long familiar to the stock breeder, has recently been publicized in the popular magazines. But what may be expected of it in the human species has not been fully determined experimentally. This procedure should not be undertaken in any particular case without full knowledge of possible subsequent social and legal complications.

Endocrine therapy has likewise come into the foreground in recent years. Tests for the activity of various glands are becoming more accurate and this fact will help place this line of therapy on a more rational basis. What has already been accomplished along these lines of approach is as yet only suggestive. Litzenberg²⁷ has reported that a third of some twenty-two cases of sterile women with a depressed metabolic rate became pregnant subsequent to the administration of thyroid. The intricate relationship between thyroid, pituitary, and ovaries makes interpretation of results difficult. Frank, Bland, First, and

Goldstein, and many others have reported encouraging results from the administration of various endocrine preparations. Green-Armytage reports that the treatment of anovular menstruation has been followed by success in three out of seven cases of his own experience. These had been given four 1 m injections of 100,000,000 units of Estroform during the first two weeks of the cycle and three injections of Pregnyl (100 rat units) during the last ten days beginning on the seventeenth day. The benefits of hormone therapy have been definitely established in selected cases and further study along these lines is distinctly warranted.

Any discussion of sterilization would hardly be complete without mention of the need of prophylactic care in youth and adolescence directed at preventing the ravages of chronic and debilitating disease. The need of early and vigorous treatment, particularly of gonorrhea, cannot be overstressed.

Therapeutic procedure must frequently be experimental in nature. Husband and wife must agree to cooperate with a full and complete study which may require the services not only of the gynecologist but also the special talents of the internist, urologist, endocrinologist, and roentgenologist as well. Patient and painstaking attention to the correction of all contributing factors will be rewarded with the greatest probability of a successful conception.

STRONG MEMORIAL HOSPITAL

References

- 1 Knaus H. *Periodic Fertility and Sterility in Woman*. Wilhelm Maudrich Vienna 1934.
- 2 Ogino, K. *Zentralbl f Gynäk* 56 721 1932.
- 3 Polak, J. O. *A Manual of Gynecology*, Lea and Febiger, Philadelphia, 1927.
- 4 Crossen, H. C. *Diseases of Women*, C. V. Mosby St. Louis, 1922.
- 5 Green Armytage V. B. *Obstetrics Gynecology Survey of The Washington Institute of Medicine* 3:35, 1936.
- 6 Meaker, S. R. *Sterility in "Gynecology and Obstetrics"* by Carl Henry Davis W. F. Prior Hagerstown 1933.
- 7 Reynolds, E. and Macomber D. *Trans Amer Gynec Soc* 46 99 1921.
- 8 Meaker, S. R. *J. A. M. A.* 90 111 1928.
- 9 Irving, F. C. *A Textbook of Obstetrics* Macmillan Co. New York, 1936.
- 10 Naegerath. Cited by Polak.
- 11 Kehrler and Sanger. Cited by Polak.
- 12 Wharton, L. R. *In Gynecology* by Howard A. Kelly, D. Appleton and Co. New York 1928.
- 13 Mazer C. and Ziserman A. *J Amer Jour of Surg* 18 332 1932.
- 14 Ansbach R. M. and Hoffman J. *Amer Jour Obs and Gyn* 28 473, 1934.
- 15 Novak E. *J. A. M. A.* 102 452 1934.
- 16 Frank Robert T. *The Female Sex Hormone* Charles C. Thomas, Springfield 1929. *J. A. M. A.* 97 1852, 1931.
- 17 Bland B. First A. and Goldstein L. *J. A. M. A.* 105 1231 1935.
- 18 Dittler R. *Münch Med Wecherschr* 67 1495 1920.
- 19 McCartney J. L. *Amer Jour of Physiol* 63 207 1923.
- 20 Kohlbrugge, J. H. *Arch f Entwurf* 35 165 1920.
- 21 Waldstein E. and Ekler R. *Wien Klin Wochenschr* 26 1689 1913.
- 22 Mayer A. *Klin Wochenschr* 1 1142 1922.
- 23 Vogt E. *Ibid* 1 1144 1922.
- 24 Rubin I. C. *N. Y. S. Jour of Med* 29 379 1929.
- 25 Hubner H. *Sterility in the Male and Female* Hehman and Co. New York 1913.
- 26 Evans, H. M. and Bnfr G. O. *The Anti sterility Vitamine Fot Soluble E*, Univ of Calif Press Berkeley 1927.
- 27 Litzenberg. Quoted by W. P. Graves *Gynecology* W. B. Saunders Co., Philadelphia 1928.

INJURIES AND INFECTIONS

A Study of Cases Occurring on the W P A Projects of the Pelham Bay Area

HARRY LOWENS, M D , *Bronx*

In connection with the proposed institution for the third time in this city, of a panel of physicians for the treatment of the injured employees of the W P A , the Chief of the Safety Department at Washington recently showed me some figures dealing with the incidence of infection in the country in general and of New York City in particular. The figures were of a very startling nature: an incidence of eleven per cent of infections in July 1936 for New York City and a much lower figure for the country in general. In the course of a few months this incidence dropped to four per cent for the city, but even this was higher than the national average of 3.51 per cent. The figures available in the central medical office at New York City are in sharp contrast to the above, being approximately 2.5 per cent* of infections for 1936.

The area served by this office, which is located at Pelham Bay Park, is not less than ten miles square in extent. The number of men employed is between 4,000 and 5,000. Most of these men are at work in the open, constructing roads, pouring cement, and in filling and grading operations. A very large bathing beach is being constructed at Orchard Beach requiring the erection of a large sea wall, a boardwalk, roads and parking spaces, bath houses, and various other buildings as well as sewage disposal facilities.

A considerable proportion of the men are employed in four large shops located in a former "drill-hall" at Pelham Bay Park. These are a metal shop, sheet-metal shop, stone-casting shop, and a carpentry and furniture building shop. There is also a very large warehouse located near these shops. The approximate number of men employed in these

shops and warehouse is 1,000. This area, where about twenty projects are in operation, is almost entirely made up of park land and has, therefore, very poor transportation facilities.

Serious Accidents

In the course of the year two fatal accidents were recorded. One could hardly be considered as an accident due to occupation or labor performed. This case was that of a heavy and florid man, aged sixty-five, who was very active and constantly busy, although his superiors did not think that he was well because of his labored breathing. He was seen at a shack where he had been brought in from the field and was found in a moribund condition. He died in the ambulance on the way to the hospital. He evidently had a hypertension and the diagnosis antemortem was a cerebral hemorrhage.

The second case was that of a man run over by an automobile while filling the tank of his car with gasoline. The accident occurred at 3.25 P.M. on an isolated road, about 2½ miles from the medical office. Telephone facilities were not available in the immediate neighborhood, and very few W P A workers were in the vicinity of the accident. This man sustained a fracture of both legs, one of them compound with severe bleeding from the wound. It took the city ambulance forty-five minutes to reach this patient. The project physician was not informed of this accident until the following day. This patient had a transfusion following his admission to the hospital and the leg with the compound fracture was amputated. He died shortly after the operation, probably as a result of the severe hemorrhage which he had sustained. If the project physician had been notified promptly he could have reached the patient within a few minutes.

* A request for a copy of the Safety Department's tabulation was denied because the figures are supposed to be confidential.

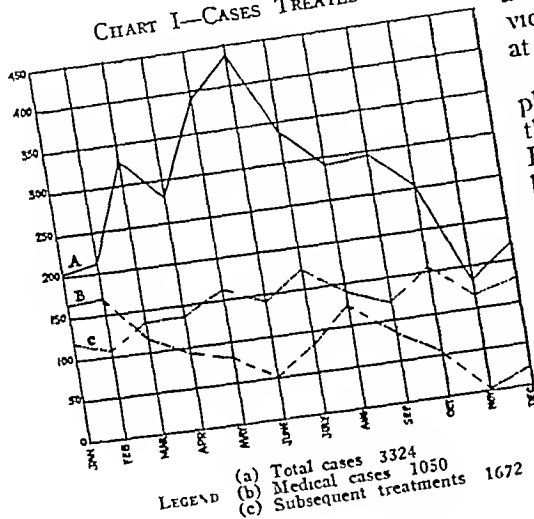
and the bleeding would have been promptly controlled which might have affected the final outcome

There were no other serious accidents in the course of this year involving the loss of eyes, or amputation of either of the extremities, fingers or toes. There were a number of fractures, mostly of small bones of fingers, toes, and ribs. No definite skull fractures, proven by x-ray, were encountered. No fractures

of long bones are on record for the period. There was one case of fracture of the transverse processes of the lumbar vertebrae without cord injury. This unusual record I do not consider as merely fortuitous, my feeling being that both the safety inspector and the project physician were very conscientious and cooperated very effectively in the prevention of accidental injuries. Surely the fact that such a hazardous place as a lumber factory not having had one serious accident in the course of a year speaks volumes for the effectiveness and possibilities of preventive safety devices and proper supervision of the men at work.

The cases treated by the project physician at Pelham Bay Park during the year 1936 are clearly shown on Chart I, a tabulation of the total injuries numbering 3324. There is also shown on the same chart the number of subsequent treatments, which were 1672, a ratio of about fifty per cent for the year. The curve for the total injuries shows one particularly sharp rise with the peak reached in June. This occurrence can be readily explained by the fact that at this time the work at Orchard Beach, the largest project of this area, was being accelerated for the purpose of opening

CHART I--CASES TREATED



CHAPT II—NUMBER OF CASES PER MONTH AND NUMBER OF SUBSEQUENT TREATMENTS

LEGEND
 (a) Total cases 3324
 (b) Medical cases 1050
 (c) Subsequent treatments 1672

accelerated

439

200

LEGEND
 NUMBER OF CASES
 " " SUBS TREATMENTS

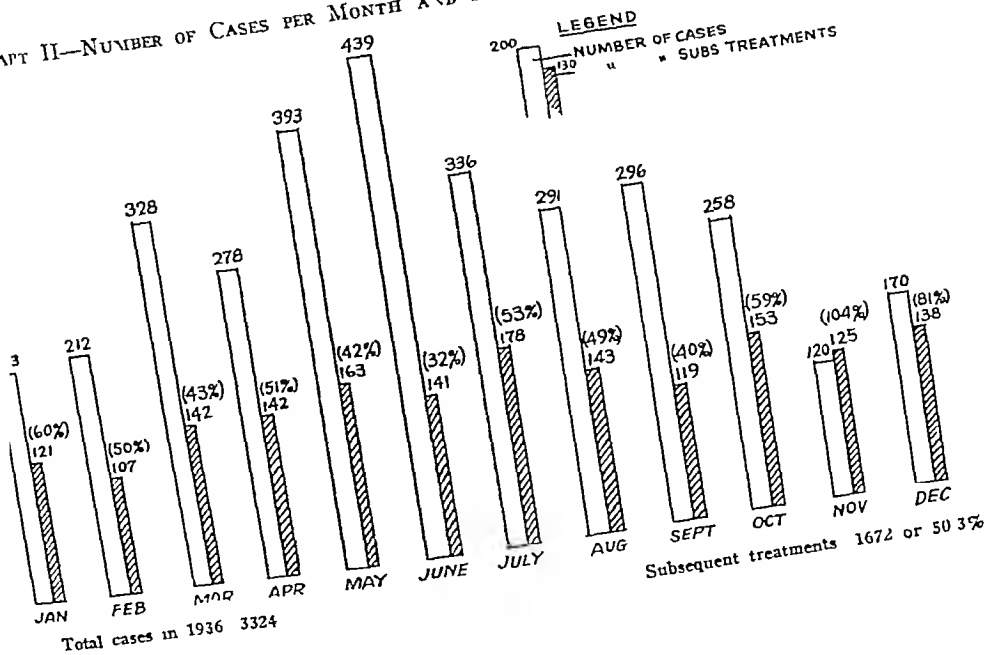
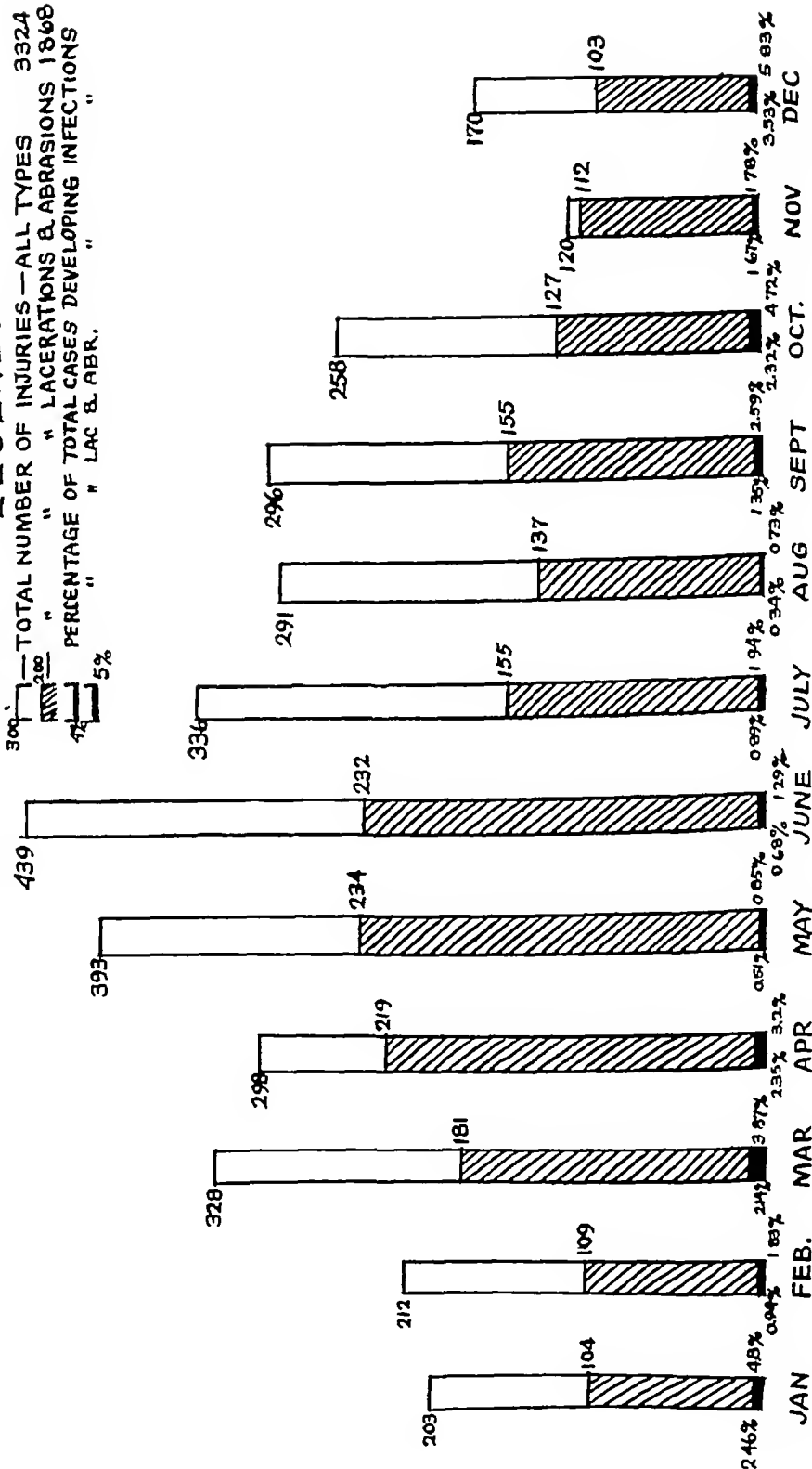


CHART III—INFECTIONS—1936

LEGEND:

300' — TOTAL NUMBER OF INJURIES—ALL TYPES 3324
 100' — " " LACERATIONS & ABRASIONS 1868
 41' — PERCENTAGE OF TOTAL CASES DEVELOPING INFECTIONS " "
 5% — " " LAC & ABR. "



Total injuries for 1936 3324 Total number of infections 48 % Infections on basis of total injuries 1.45 % Infections on basis of lacerations and abrasions 3.58

a section of this project for the use of the general public of this city. Not only was the construction rushed, but the number of men employed here at the time was markedly increased. The rise and decline of the other peaks in this graph can be explained by seasonal variations and also with reference to the total number of men employed on the projects of this area.

The noninjury or medical cases totaled 1050 during a period of about ten months. These cases were made up in part of physical examinations given to employees where they had reason to believe that physical disabilities prevented them from doing certain types of work. They were either discharged and put back on relief as unemployable or given work better suited to their physical status. The majority of cases, however, were made up of acute illnesses, such as colds, abdominal disturbances, colics, both renal and gall-bladder, cardiac cases, fainting spells, epileptic fits, etc. All of these cases were treated once only and properly disposed of—no subsequent treatments in such cases were given.

The sharp drop in the number of medical cases in October, November, and December was due to an order, issued on October 21, 1936, by the New York City W P A Administrator, prohibiting the medical men in the field from attending any kind of acute medical case. This order was vigorously protested by the Medical Department without any result. Needless to say, such an order definitely endangered the health and well-being of over 200,000 men employed in this city and surely contributed to the spread of the epidemic of influenza.

Referring to the matter of costs and the relative value of the services rendered by the Medical Section of the W P A, it may be interesting to note the following data for the year 1936:

3324 cases—First treatment at \$3.00 (prevailing rate in New York City)	\$ 9,972 00
1672 cases—Subsequent treatment at \$2.00	3 344 00
1050 cases—Medical, at \$2.00	2,100 00
Total	<hr/> \$15,416 00

The yearly rate of pay for a project physician was \$2100 until December

1936. In December the pay was raised to \$2400 per year.

Under the panel system the cost of medical service will of necessity be greatly increased by reason of the greater proportion of subsequent treatments, which under the present method is but fifty per cent of the total number of injuries. Likewise, because of the delay in rendering medical care to the injured, the number of infections will be materially increased, and this will, of course, add to the cost of medical care. And finally, the time lost in going to and from the panel physician may in the end cost more to the Federal government than the entire cost of medical care. A detailed study of this last item cannot be made, but this assertion is not at all unreasonable.

The number of subsequent treatments is clearly shown on Chart II. It is interesting to note that at the time of the peak of the injuries in June 1936, the number of re-treatments was comparatively low, that is thirty-two per cent. This was probably due to the type of injury, to the seasonal variation, and relatively lower incidence of infection. Only in November was the number of subsequent treatments higher than the total number of injuries, the percentage being 104. The total number of subsequent treatments for the entire year is fifty per cent of the total number of injuries.

Charts III, III-A present a division of the total number of injuries into two distinct groups: (1) comprising cases of abrasions and lacerations, (2) injuries with no actual break in the skin. This distinction is important with reference to the tabulation of infections occurring which are practically limited to the cases where the skin was broken. They also show a relationship of infections to both the total number of cases and to those showing a break in the skin.

Infections

The total number of infections for the year were forty-eight. The total number of injuries were 3324, of which 1868 had either a laceration or an abrasion of the skin. The percentage of infection to the total number of injuries is, therefore,

1 45 per cent, or, if based only on the number of cases having had lacerations or abrasions, 2 58 per cent (Charts III and III-A)

These charts likewise show the seasonal variation in the incidence of infection, although the occurrence of infection would presumably be highest during the hot season because of the maceration of the skin due to perspiration. This is not the case, however. The months of May and June with the highest number of injuries show a very low rate of infection, May showing 0 51 per cent for the total, and 0 85 per cent for lacerations and abrasions, and June, 0 68 and 1 29 per cent respectively. The highest incidence of infection was in the months of October, 2 32 and 4 72 per cent, December, 3 53 and 5 83 per cent, January 2 46 and 4 87 per cent for ratios to total number of infections and lacerations and abrasions respectively.

Considering the limited total number of infections—forty-eight for the entire

year—no generalized conclusions can be drawn from the data presented.

As a measure of the severity of cases reported, the number of treatments rendered to each of the patients who was diagnosed as having an infection

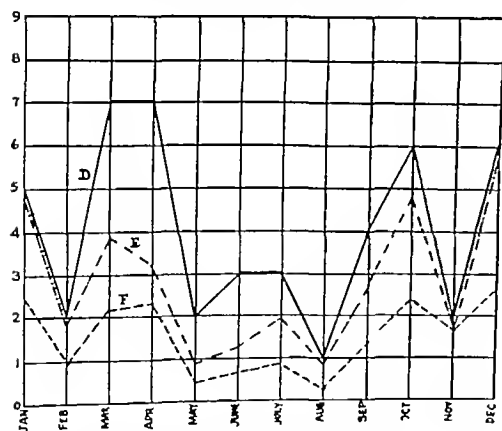
23	patients received	1	treatment
10	"	"	2 treatments
7	"	"	3 "
2	"	"	4 "
4	"	"	5 "
1	"	"	6 "
1	"	"	7 "

Only one case was sent to the United States Marine Hospital for treatment, and this was the only case for the entire year in which an infection resulting from an injury caused lost time and the payment of compensation. This patient allegedly sustained his injury on January 13, 1936, and presented himself at the medical office for the first time on January 20 with an infection of the palmar surface of his left hand. He was sent to the hospital on the same day.

Three cases out of forty-eight were referred to the central medical office, either because the cases were of a type which could be better served by a more properly equipped office and where medical assistance was available, or because of the doubtfulness of the injury being sustained in the course of occupation on a W P A Project.

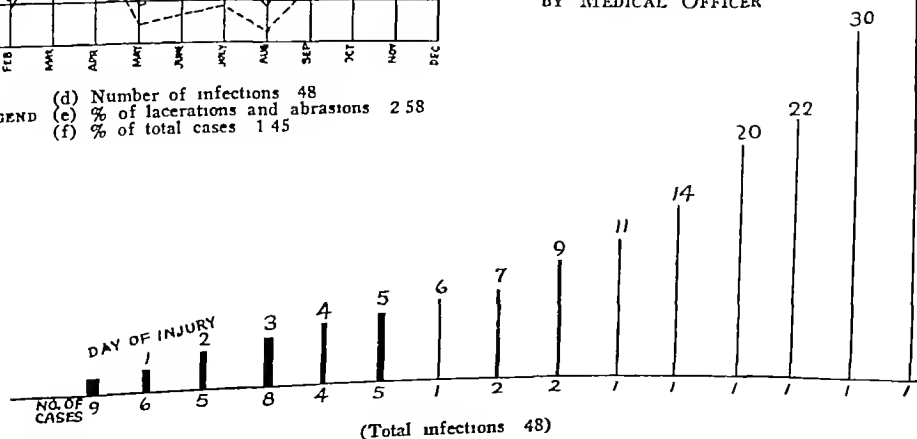
The author tried to determine the period which elapsed between the injury

CHART III-A—ROTATION OF INFECTIONS TO TOTAL NUMBER OF CASES



LEGEND (d) Number of infections 48
(e) % of lacerations and abrasions 2 58
(f) % of total cases 1 45

CHART IV—NUMBER OF DAYS ELAPSING AFTER INJURIES BEFORE INFECTION SEEN BY MEDICAL OFFICER (OVER 2 YRS)



and the time when the patient sought medical care. This is shown on Chart IV. Twenty-eight cases out of a total of forty-eight, or fifty-eight per cent saw the medical officer within three days following the injury. One case of infection with a foreign body came for treatment more than two years after the original injury was sustained.

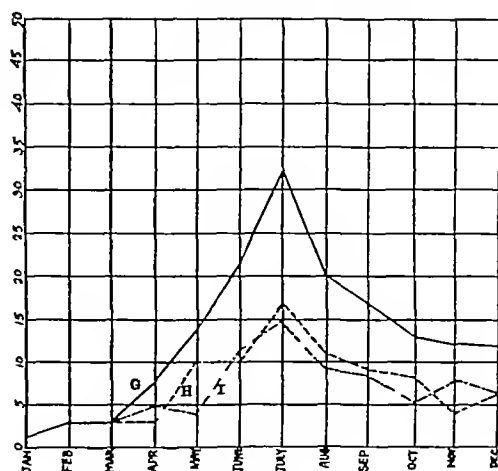
All of the forty-eight cases had their infections diagnosed when they presented themselves for their first treatment. In going over these cases of infection carefully I found that eleven had a very doubtful connection with the work which they performed for the WPA. These cases were as follows:

Hangnail infections	3
Infected hair follicle	1
Insect bites	2
Seen day of supposed injury with well-developed infection	1
Infection of toes and foot due either to paring of corn or ring worm, present on both feet	
Injury of supposed contusion of very doubtful origin	1
Infection of left shin—injured several times while at home and on job. Last injury at home a few days prior to first visit to doctor's office	1
Case seen first time fourteen days after alleged injury—infection of right thumb	1
Infection of right thumb—refused compensation by Federal Compensation Department	1
Total	11

Infections in cases of punctured wounds totaled five, all of which appeared in locations other than feet. The parts where the punctured wounds were infected were confined to the hands and fingers.

No infections were present in seventy-eight cases of punctured wounds of the feet in the course of the entire year. This record is probably unique. Dr. John J. Moorhead speaking on the subject of punctured wounds at the New York Academy of Medicine during the 1936 Graduate Fortnight expressed as his opinion that the only safe treatment for punctured wounds is to convert them into open ones. Had I followed this advice I would have had a great many more "loss of time" cases and very probably a great many more infections. The treatment of punctured wounds of the feet by the author was very simple indeed. The foot about the puncture was generally

CHART V—PUNCTURED WOUNDS



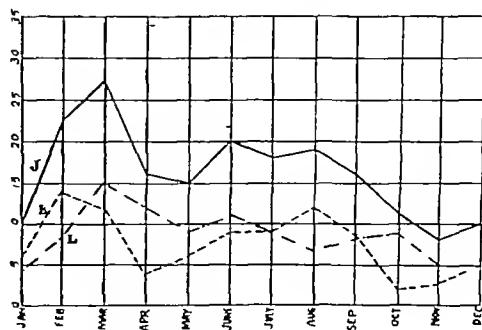
LEGEND (g) Total 156 cases
(h) Feet 78 cases
(i) Other parts 78 cases

cleansed with benzine and a probe dipped in a 3½ per cent iodine solution was introduced either once or twice into the tract of the wound. A simple dressing of gauze and adhesive tape was applied. Very few subsequent treatments were necessary and no one lost any time because of such injury. In cases where a patient with such a wound returned for further care, the same treatment was repeated.

Referring to Chart V, punctured wounds of the feet, the peak of the curve corresponds to the peak in Chart I and its cause is the same in both cases, that is, the attempt to complete a section of the Orchard Beach project in time for its use by the general public.

A study of the punctured wounds of

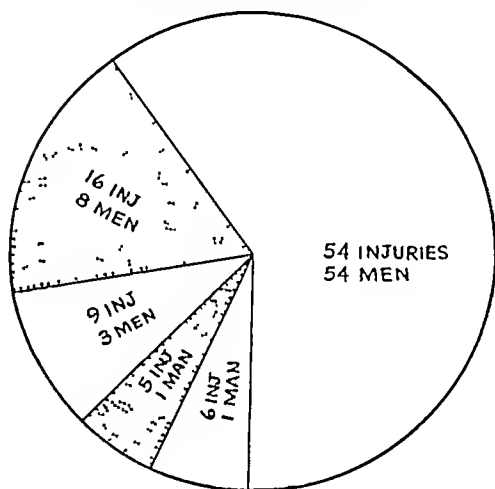
CHART VI—EYE INJURIES



LEGEND (j) Total 92 cases
(k) Iron shop 90 cases
(l) Elsewhere 102 cases

the feet was made with a view to possible prevention, and the matter was brought to the attention of the Safety Inspector of my location. Subsequently a great many punctures were prevented because of the organization of a crew of men whose duty it was to remove boards with nails as soon as they were discarded. This crew operated at Orchard Beach where the greatest part of these injuries occurred.

CHART VII—EYE INJURIES W P A IRON SHOP
—1936 (PELHAM BAY SECTION) TOTAL
No OF CASES—90



Needless to say that tetanus antitoxin was used in practically all of the punctured wounds of the feet, and no case of tetanus occurred during the year which this report covers.

The last part of this study deals with eye injuries (Charts VI and VII).

This study was likewise undertaken for the purpose of reducing the number of eye injuries. I have divided the total number of these injuries, all of which were in the nature of foreign bodies, into a preventible group which occurred in the iron shop and those in the field.

The injuries in the iron shop occurred in the process of grinding metal and were caused either by a metal particle or a particle of emery from the grinding wheel. The injuries occurring in the field were not subject to prevention because they consisted of foreign bodies blown into the eyes by the wind. The number of cases in the iron shop was

a total of ninety for the entire year. In following the curve on Chart VI, the drop in the incidence in the number of eye cases in the iron shop in March can be attributed to the introduction of goggles for the protection of men who were employed in grinding operations. The curve, however, gradually rises, probably because of inadequate supervision and negligence, but it never reaches the peak of February. The second peak is in August, when the curve again begins to descend, reaching an all year low in October.

Chart VII shows the distribution of eye injuries among the men employed in the iron shop. It is worth noting that two men accounted for twelve per cent of all eye injuries, one having had six individual injuries and the other five. It is evident that these two men should not have been permitted to do any metal grinding whatsoever. Furthermore, three men sustained three injuries each. These men likewise should be watched carefully to determine their fitness for grinding operations. Eight more men had two injuries each and these men should be kept under proper supervision while working at the emery wheels.

One factor omitted from this report which should have been included is a monthly average of the number of men at work on each of the projects covered. The writer tried to obtain this information, but it was denied to him. Another item which the writer unsuccessfully tried to obtain for checking purposes was the number of "loss of time" cases.

To summarize, this study shows (1) the low cost of treating the W P A injured, (2) the small ratio of subsequent treatments to the total number of injuries, (3) the low rate of infections, which in the last analysis is surely due to the promptness with which the injured were cared for, (4) the demonstration of the possibility of escaping infection in such dangerous injuries as punctured wounds of the feet and the possibility of preventing such injuries, (5) the care and prevention of injuries to the eyes in such dangerous occupations as the grinding of metal and the elimination of the men who are careless and grossly negligent in the operations of grinding.

COMMENTS BY A COUNTRY DOCTOR

Time—1893–1933

B P ALLEN, M D, *Oriskany*

I might compare this paper with the dictionary. A man was reading a dictionary, when his friend asked him how he liked it. He replied, "Well, it is a very interesting story, but I find it slightly disconnected."

I am sure this paper is "slightly disconnected," and can only hope you will find it interesting.

In this short contribution, I wish to comment on some of the many changes that have taken place in the last forty years, especially those changes that have affected the practice of medicine.

First, let us consider transportation. While some physicians used a bicycle about town and for short outside calls the horse-drawn vehicle was the principal mode of transportation used by physicians in both city and country. Now it is the automobile. The change from horse to automobile was slow at first, especially in the country, but became rapid as soon as more reliable automobiles were made and good roads began to appear. All things considered, the horse was pretty satisfactory and I think many country physicians were sorry to make the change. One thing I know—when I gave up horses, I also gave up my only hobby.

Many country physicians thought the automobile would greatly increase practice, for they reasoned, with good roads and more rapid transit they could take on more patients at a distance. This may have proven to be the case in some instances, but not in all, and for the following reasons.

It is true that with the auto the doctor could make his calls more rapidly and easily but it is equally true that very soon the farmers and out of town patients also had machines and could and did more often consult the doctor in his office than formerly. And unfortunately for the small town man, all of his former patients do not stop to see their family physician but drive right by and consult city physicians instead. Perhaps they are like the man who said he always employed a doctor who had his office on Genesee Street, because if he

did not he was not much of a doctor anyhow. Now this may be true—but I doubt it.

In 1893, when I began my practice in Oriskany, we had so-called roads, where we now have state, county, and town highways. No country roads were hard surfaced and in the Spring and late Fall we waded through mud, in the Summer, if it happened to be a dry season we were smothered with dust and in the Winter we struggled through storms, snow banks, and pitch-holes. The roads were not kept open in Winter as now and when after a bad storm an attempt was made by the farmers to open them, they always followed the direction of least resistance with the result that the Winter roads were through the fields instead of between road fences. All too often the doctor in going to his patients broke his own road and if this proved impossible he was supposed and often did tie his faithful steed to a tree or fence post and continued his journey on foot.

In the village there were no sidewalks worth mentioning, no sewer system or city water. Water supply was from wells often infected or impure and only outside toilets or privies were used. Houses were lighted by oil lamps and the village streets by an occasional lamp or lantern, if at all.

When the doctor was called at night he either carried a lantern or walked in the dark and many is the time I have said, "Oh, please excuse me," when I have bumped into a tree thinking it a fellow pedestrian. We also had no telephones or street cars. Later, of course, we had both and now telephones are numerous even in the country districts.

Many of the diseases we treated forty years ago are seldom encountered now. Typhoid fever was one of these. Beginning in September or early October every year, we had many cases, but since we substituted city water for wells and constructed a modern sewer system to take the place of outside toilets, the disease has practically disappeared. My last case was in 1913.

Typhoid was a mighty severe disease, one that usually kept a patient in bed for six or eight weeks and was always followed by a slow convalescence. Mortality was not too bad considering, but there were many deaths.

Summer diarrhea in children and in older people kept us busy especially in July, August, and September. Nearly every child under five years suffered from this disease during the season and the death rate was very high.

The present infrequency of diarrheal diseases I think can be accounted for by our sanitary milk and water supply and by the fact that, with the houses so well screened, we get away from the menace of the housefly. I might add also, that in my opinion, the average mother is much better educated and more efficient in the care and feeding of her children.

Diphtheria was one of the most dreaded of diseases and certainly took its toll especially of children under five years of age. Antitoxin was being used to some extent, but owing to the fact that it was very expensive—that the general public was afraid of it, thinking that it always depressed the heart and caused paralysis, we were unable to use it in many cases where we knew it to be indicated. Also, I fear we doctors used too small doses and not early enough in the course of the disease. Now, thanks to T A and toxoid we have, I think, this dread disease practically whipped. There have been no cases in my territory since 1925 and with so many schools and the pre-school children immunized, I certainly do not expect any epidemic of this disease.

One other disease I will mention, namely pulmonary tuberculosis. I think it is safe to say that an early diagnosis of this dread disease was seldom made forty years ago. When cases were diagnosed, they were often moderately advanced or very advanced and treatment did little or no good.

Now, with the great advances that have been made in the segregation, care, treatment, and early diagnosis of this disease, cases are no longer looked upon as hopeless. In fact, recent figures show the yearly death rate has dropped from one hundred and fifty to about fifty per 100,000 population.

All the credit however, does not go to the medical profession, for insurance companies and lay organizations have done

much to bring about these results. Preventive medicine was unheard of and certainly was not practiced to any extent, forty years ago.

Each town was supposed to have a health officer, but his duties were very light as compared with now. Many years ago I was appointed Health Officer of the Town of Marcy and felt very proud of it and, naturally, expected it would add considerably to my income. I soon found out my mistake for the Chairman of the Town Board informed me the appointment was only made to comply with the State law and I was supposed to do exactly nothing. However, if I had to investigate a nuisance I would receive two dollars for each investigation in the town. As my first year's fees amounted to just six dollars, I resigned. Compare that with conditions at present, a most efficient State Department, District Sanitary Officers, a Sanitary Code that regulates everything, wonderful County Hospitals to care for our tubercular and indigent patients, County Health Nurses, School Nurses, School Examinations, and Clinics too numerous to mention.

It would take too long even to mention all the changes that have been brought about by preventive medicine in recent years.

I cannot, however, refrain from making a few remarks on the management of milk. Forty years ago, the milk industry was under no supervision and anyone who had milk to sell could do so. No cows were tuberculin tested, no dairies scored, no milk pasteurized, cooled or bottled. All milk peddled was dipped from a can into pails or other receptacles left on the door step.

It seems to me we had more maternity cases back in the gay nineties than now. I really think I would have starved to death during the first eighteen months of practice except for the forty confinements I attended. I nearly did anyhow.

Why women will send for a young inexperienced doctor to attend them in maternity, has always been a mystery to me, but it is a lucky thing for the young man starting in country practice.

I believe I encountered nearly all the complications it is possible to have during my first year. I remember breech, foot, shoulder, occiput, posterior presentations, a case of hydrocephalus, and a monstrosity, to say nothing of about five pair of twins.

Practically all maternity cases were cared for in their homes. It was a rare exception that went to the hospital.

A great majority of our maternity cases had no prenatal care and often the doctor was not called "till the patient was in labor." The experience we older country doctors had in maternity cases would be most interesting, but my time is limited and I will not bore you with mine.

We certainly had some hard problems to solve and under very trying conditions. For instance, I was called to a case at one A.M. and had no previous knowledge of the patient, only candles for light, no clean towels or dishes, no trained nurse or other good help. Patient examined, dead baby, probably hydrocephalus, not a chance of getting another doctor to help. What would you do under the circumstances? One thing is sure—such cases did teach the doctor self-confidence and independence. And yet, notwithstanding the many disadvantages under which we worked, I think our maternal death rate compared favorably with the results obtained today, with all our prenatal care, improved technic, and hospitalization of patients.

I know of one country doctor who had only two maternal deaths in one thousand confinements. One was due to ruptured uterus in an otherwise normal case and the other to a postpartum infection, caused by the carelessness of an untrained nurse who was suffering from a badly infected finger at the time.

Without a doubt, the attitude of the people has changed much insofar as the so-called family doctor is concerned. Years ago the family doctor was consulted in every case of ill health. No matter if the case rightly belonged to the surgeon or the specialist his opinion was sought. Now quite often the first the doctor knows of the case is, that Mrs. Jones is in the hospital for an operation.

Speaking of hospitals reminds me of the changed attitude of the general public towards those institutions. Forty years ago the public thought of hospitals with dread and as a place to fight against. To send a patient to the hospital was usually a he-man's job, for the doctor had not only to combat the prejudice of the patient, but many times of the whole family as well. Now that feeling seems to be entirely absent, and, indeed, I think, at least some

patients go to the hospital who could be equally well-treated at home.

Just to mention again a few of the helps and conveniences we now enjoy, that we did not have forty years ago. We have good roads, automobiles, motorcycles, and airplanes. We have electric lights, electric refrigerators, and many other electrical things in our residences and in our offices.

We have telephones in nearly every home and all business places. We have vaccines and antitoxins for both prevention and treatment. We have radium, the x-ray, and the radio. And, what an educator is radio, in fact, whatever would we do without this most modern achievement of science, for without it how could anyone, or better, everyone have learned the great virtue of Genuine Bayer Aspirin, Fleischman's Yeast Cakes, Lady Esther's Wonderful Face Cream, Eno Effervescent Salts, all the best gasolines and motor oils, and of that great rejuvenator of the human system—Crazy Crystals!

And now a few words to the younger members of the Society. After forty years in the practice of medicine, I am more than ever convinced that the greatest thing in medicine is not surgery, or any specialty, or any particular form of treatment, but diagnosis.

You all know that to make a correct diagnosis is often most difficult, sometimes impossible even with all our wonderful modern instruments of precision, and you can, perhaps, imagine how much more difficult it was forty years ago without them.

Then we had to depend almost entirely upon physical examination and symptoms, and I still believe every patient is entitled to a thorough physical. So I say to you use your eyes, your ears, your fingers, and above all your heads, and then use the x-ray and the laboratory to prove or disprove your findings.

Sure, we all make mistakes, and will continue to do so, but mistakes should never be made through carelessness, neglect, or lack of proper examination. You know, also, that nature often comes to our rescue and sometimes our patients recover in spite of a faulty diagnosis or improper treatment.

Several years ago I had a male patient, age about seventy, who was very ill with influenza and pneumonia. The prognosis

was bad and in my opinion was made more so by the mental attitude of the patient

When I asked him, on my daily visits, how he was feeling, his answer was, "Well, doctor, I am not feeling so good today I know I am going to die and I can't see any use of your calling, for I think I can die quite as comfortably without you as with you"

After receiving this answer for several mornings in succession, I said to him, "All right, John, if you know you are going to die and are determined to do so, why go right ahead and die I don't think anyone will care very much anyhow" Well, I did not get my honorable discharge from the case, as I expected, and the very next

morning the patient stated that he was feeling much better and he continued to improve and make a nice recovery

Yes, the man recovered and this is the way he got back at me for giving him that shock, when he was so ill

I called to see him one morning after he was able to be about the house, when the following conversation took place, I said to him, "Good morning, John, how are you today?" And his answer was, "Oh, I am feeling pretty good today," and continued, "You know doctor, I have been thinking it certainly is remarkable how much *Nature* can do for a feller" All of which goes to show that some of our patients give nature due credit for their recovery

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., D.R.P.H., *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Who is Who in Driving

I know there are many intoxicated automobile drivers and that they are dangerous on the roads. But when I drive my old car I cannot help thinking of some of the mental patients who sit at the wheel and imperil lives. And sometimes those belonging to the borderline or transition cases can be just as obnoxious as the advanced patients. Nay more, because the latter rarely handle machines.

A plumber suffering from mild *paranoia* in the form of persecution ideas had to drive every day a small truck with tools and pipes to the buildings where his men happened to work. He had moments of fear when he imagined that some enemy was coming in the car opposite or alongside his own. Then he often felt like running away, that is like making a quick turn to the right or left regardless whom or what he might meet or crush. He was still able to control his desire and only stopped slowly at the curb and waited till his vision would vanish. But some day he might be unable to master himself.

A wealthy young student who, in addition to his frequent drinking orgies had pronounced *schizophrenic tendencies* and all

sorts of anxieties, drove his car at all hours of night or day. He had no license because he could never pass the test and hated to employ his chauffeur not wanting him to know where he was going. One day, when his auto was in the repair shop, he borrowed a poor colleague's dilapidated car with bad brakes. That put him in a furious mood. He was not aware that the gasoline reserve in the tank was very low until the vehicle made a stop in the middle of the road and in such a manner that it violated all the traffic rules. He thought that somebody was playing him "a dirty trick", as he explained later, and, jumping out, he began to run until he was injured by another car.

A man of fifty who could never sleep at night because darkness brought him *delusions*, slept in the day time, but insufficiently, owing to his business. One day he dozed off while driving and awoke on the sidewalk where his car, after careening and breaking a newsstand and some windows, had spiled him out. Only then he consented to consult a physician and the latter sent him to a psychiatrist.

Two poor boys, working in a summer

camp, had to go nightly to the city to buy food in the wholesale market, so that they could be back very early in the morning. They were overworked and forever tired. One of them, the normal one, not doing any driving, always slept on the truck. But the driver was a *psychoneurotic* patient and constantly preoccupied with his thoughts. He often failed to hear somebody else's horn or to notice signals. He had many minor accidents until one night he smashed both his truck and an oncoming car, killed a passerby and, together with his partner, was knocked against a wall. They were both severely wounded.

A *hallucinatory* boy of twenty-one was a taxicab driver and only with great difficulty did I succeed in making him change his occupation.

A very young man with musical and literary leanings was employed in an art store in a provincial town. He had to deliver decorative and other objects by auto. But he was one of those atypical, indefinite or unclassified *psychopathic personalities* in whom it is difficult to predict what they might do under unusual circumstances. His mother had brought him to the clinic the first time. But the second time he came alone and said he had lost his job because he had made a mistake in driving. He was happy, though, because "from now on he would have time to tackle the 'Kreutzer Sonata.'" I naturally thought of Tolstoy's story with that name, as it reminded me of my own adolescence when this thrilling book had to be read in secret. But he corrected me at once by taking out a violin from under his overcoat and beginning to play with great skill and with the proper enthusiasm the first movement of Beethoven's famous *Kreutzer Sonata*—without accompaniment, of course. It was enrapturing. However, his normal state ended there. As he came to the *andante* he jumbled up the notes and mingled them with some imaginary and meaningless jazz. To my questions he answered that his employer had sent him with some original framed canvasses, after cleaning them, to their owner, who was living in an out-of-town mansion. The boss had enjoined him to be extremely careful as those were very valuable and expensive works of art, which made the boy particularly tense. If anything happened to them he would be held responsible. The story of Mummichus came to mind, the ignorant and uncouth Roman General who, at the conquest of Greece and during the transportation of great marble sculptures from Corinth to the boats bent for Rome, seriously threatened his soldiers that, if they broke any of the statues, they

would have to remake new ones. Well, our patient did not reach his destination. Passing near an insane asylum at the outskirts of the town he was frightened, as it often happened to him, that he might be interned there. Then he had the accident which damaged the pictures.

An inspector of newsstands for an important metropolitan daily, has to see the newsdealers of one section of the city, listen to their complaints and improve the distribution of his paper. He drives a car supplied by his employers. A quiet, unassuming, not talkative person. Married, having a few children. In the last six months there seemed to be danger of his losing his job—or he imagined so. He worries about his family and his fears have changed into a real *manic-depressive* state. In that state, he drives his auto for eight hours daily. There are moments when he does not know what he is doing. His movements are partly instinctive. It is true that the mind can do a good deal of automatic thinking, but he has had several "minor" accidents. The major one is due any day.

A Public Enemy

Mrs X is greatly excited. She bites her finger nails, throws things about, shivers at the least noise and has a hand tremor that makes her drop objects and break glasses and dishes. She always expects something bad to happen. She is more restless when anybody in the house is late in coming home. Then she cries, walks fast back and forth in her room, wrings her hands and bites her lips to the blood. But when her husband returns later than usual she is, of course, in even a worse condition. She often goes to the window and bends perilously down so that she has to be held not to fall over. Or she lies face down in her bed, tears the pillow or pulls her hair until she actually pulls out a good deal of it.

However, when her husband finally arrives she quiets down immediately and is as suave as she can be, although a few minutes before she had been tense to the breaking point.

In her constant impatience she, who used to be a model housewife, is now entirely incapable of doing her work. Fortunately there are no children.

Nothing in her family history, nor in her own past can explain her present mental state.

Is there a subconscious desire that her husband never return when absent? A fear that he may come home?

Let us see

This patient has felt that way only a short time—the last few weeks. There was never any indication before that she was unstable or unadjusted. There was not even the common complaint of “nervousness.”

What has happened a few weeks previously?

Her husband, a successful salesman, has been told by his firm that he will be advanced within a month. His salary will be raised and, instead of visiting customers on foot, through street cars, elevated and subway trains—the story happens in New York City—he will be given an automobile. Can he drive? Yes, but he has avoided it in the past, that is since he is married. His wife, our patient, has not allowed him to do it. Why? She does not answer.

I talk to her husband. He is ready to accept his employers' offer, as soon as they make the necessary arrangements, which will be in a few days.

With great difficulty, after much diplomatic and detective work, I discover that he is suffering from an illness of which there is no external sign, nor is it shown by an examination. Then I guess it. I tell him

“You are an *epileptic*”

He does not reply. No answer is an answer.

The rest is easy. I see them both together and I learn that “as far as he can remember he had had very light attacks of unconsciousness.” There were only three people who knew about them: his mother, now dead, his wife and he. They were both very careful to hide his illness. It was a deep secret. They thought they should not reveal it even to a physician.

This man's seizures came “in the morning only, soon after he gets up.” They were of very short duration and they gave him a brief warning, which apparently was not always concrete enough, as it did not interfere with his cutting his skin if they happened while shaving. As a matter of

fact, after an exact investigation, I find big razor scars and signs of tongue-biting. During the day too, when he is out on business he has, he confessed later, under pressure, momentary mental *absences*, from which he emerges quickly. “That has never amounted to anything,” he assures me.

“That may be so, but it is not compatible with driving a car anywhere, particularly in the busy city streets. If you do that, you become not only your own enemy, but a public enemy.”

He reiterates the great advantages for him in accepting the new position. Some young brothers, orphans, depend on him. So does his grandmother.

There was, of course, the inexorable, relentless economic question mixing into the private affairs of this man.

My reasoning with him, at first, my “forbidding” him strictly, afterwards, to drive a car, seemed to make but little impression upon him. In fact, it left him unchanged and cold, or rather hostile to me. When I hinted, however, that it might become my duty to denounce him to the proper authorities—although I felt that really I had no idea whether they would heed me—I got a response.

He looked to his wife and she lifted her eyes to him.

Then he took her hand.

“What'll I say to the boss?”

“You'll find some excuse,” she answered.

Her bosom heaved up and down and she had a tear at the corner of each eye. Her cheeks reddened. Clearly, she was greatly stirred, but not in the old way.

She was cured. From then on she behaved in her usual, healthy manner.

This is a story with a happy ending. But it could have been otherwise.

By the way, who knows how many drivers are epileptics especially since a large percentage of the population is effected with epilepsy or epileptoid states or equivalent?

611 W 158 St

PARRAN SEES LONGER LIFE

The average length of human life could be stretched another ten years, Dr. Thomas Parran said in Washington the other day, if advantage were taken of available medical knowledge.

Dr. Parran, surgeon general of the Public Health Service, said that in the last eighty years the average life span of men has increased from thirty-eight to sixty-one years and of women from forty to sixty-four years.

“I feel confident that another ten years could be added to the life expectancy,” he said, “entirely aside from the possibility of discovering an effective preventive for cancer or major heart diseases.”

“Great progress in reducing the incidence of heart disease will be made in the present drive to control and eradicate syphilis, since syphilis is the cause of a large percentage of heart ailments,” Dr. Parran added.



CHARLES HOWARD GOODRICH M.D.

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EDITORIALS

Charles Howard Goodrich, President

The Medical Society of the State of New York looks with a great deal of pride and satisfaction upon its choice of Dr Charles Howard Goodrich as its President for the ensuing year. An active worker for organized medicine since 1919, he has held office in the County of Kings and in the State Society, during the tenure of which he did yeoman's work. As chairman of the Committee on Economics, he was responsible for the initiation of many important phases of this vital problem and he served the Society well as Treasurer and as member of its Executive Committee.

His career as a practicing surgeon has been a notable one and the experience derived from his community interests will contribute to the Society in its relations with the public. He brings with him to office a mature knowledge of the requirements of medical practice as it affects the laity and the profession alike and so will draw these two closer toward a common viewpoint.

Dr Floyd S Winslow, who served so conspicuously in the interests of the profession, could be succeeded by no one more able to "carry on."

True for All

The Report of the Hospital Survey for New York has as much significance for the rest of the state as for the Metropolitan Area. The conditions encountered in that region, with its large cities and small towns, its millions of people and hundreds of hospitals, do not differ materially from those found elsewhere in New York State.

Certainly the status of physicians serving the sick poor is the same. Less than 2½% of the 13,433 practitioners who work in the wards and clinics of New York City and its suburbs are paid for their time and effort. The percentage is not much different elsewhere.

Two-thirds of approximately 50,000 hospital beds in the Metropolitan Area are allotted to ward patients. These free and under-rate facilities, from which the physician receives little or no income, are in constant use. The third on which he relies for earnings enjoys an annual occupancy of only 50%. This, too, with but slight variation, is the experience of practitioners everywhere in New York State today.

On the basis of these figures, the Survey Committee has done no more than justice in urging hospital authorities to cooperate with their medical staffs in an effort to procure compensation for the

latter's service to the needy sick. In the Metropolitan Area, alone, the value of this free service has been estimated to be over sixty million dollars a year.

Double this sum and the product will not be excessive for the state. The movement to pay the private practitioner for his work in wards and dispensaries should be organized on a state-wide basis, with state as well as local hospital associations cooperating.

Another feature of the Report holding interest for practitioners everywhere is the Committee's advocacy of home treatment of the sick poor by their family physicians. Dictated by efficiency and economy, this principle was embodied in the recent Ehrlich bill. The profession will again seek its adoption at the next session. With the support of responsible hospital organizations, it shouldn't fail.

The Report of the Hospital Survey for New York is more than a picture of the Metropolitan Area. It is a cross-section of medical practice in relation to medical institutions throughout the state. It has a message for physicians everywhere.

Hints for Next Year

Considering the intense partisan struggle underlying the 1937 legislative session, medicine did not fare badly. If none of its major undertakings succeeded, at least its adversaries were decisively rebuffed.

Both Assembly and Senate showed themselves able and willing to resist political pressure in defense of the public health and the integrity of medical practice. Their uncompromising rejection of compulsory health insurance and osteopathic expansion, their refusal to entertain a chiropractic plea, gave warning that New York State will not tolerate tampering with its medical practice laws or standards of professional service. By defeat of the anti-vivisection and anti-vaccination bills, scientific experimentation was upheld and wide distribution of its benefits encouraged.

Such defeats as the profession en-

countered are not without their lesson for the future. The physicians' and nurses' lien bill, although sound in principle, succumbed to technicalities raised by various bar associations. Their criticisms should serve as a guide to the formulators of next year's bill.

If the American Foundation's report had been issued sooner, the fate of the Steingut central registry bill might have been different. The unanimity of opinion on the need for establishing indigence lends impressive support to this measure.

The same is true of the Report of the Hospital Survey for New York in relation to the Ehrlich bill for domiciliary treatment of the needy sick by the family doctor. The statistics cited and the recommendations made amply justify the profession's demand for this law.

With such support at hand, physicians should recommence the campaign for these measures now. The return of senators and assemblymen to their home territory affords an unequalled opportunity for personal contact and discussion.

The months slip away quickly. Before we know it January first will be here again and the 1938 Legislature in session. Shortly local elections will absorb the attention and energies of politicians. *Now* is the time to lay the foundation for a successful medico-legislative program for next year.

Dr J Vander Veer

As we go to press we learn with regret of the passing of the widely known surgeon and former President of the State Society, Dr James N Vander Veer. He had been critically ill for a week, although he had not been in good health for a long time.

During 1929 and 1930 he served us as President. He was graduated from the Albany Academy, and later from Union College and the Albany Medical College.

He was an active surgeon, until the end, at the Memorial Hospital in Albany.

He was a director of the Bender Laboratory and St Peter's Hospital. During the war he served overseas with the rank of lieutenant colonel. For a long time he has been active in the affairs of our Society, and his activity has also covered many other fields, Masonry, the Presbyterian Church, the Holland Society, the Society of Mayflower Descendants, Dutch Settlers, and the Association of Military Surgeons, to say nothing of the Albany Rotary Club. All this gives evidence of his manifold interests. He was a charming gentleman and a delightful companion.

CURRENT COMMENT

"A MILLION TOOTHBRUSHES could be sent into a backward community, but they would be of no use until the people were sufficiently able to feed themselves properly and to preserve their teeth." Thus declared Dr Charles Gordon Heyd recently.

"THE PHYSICIAN who is not a member of his medical society may believe that he has sound reasons for not belonging. Yet such a man does well to review the advantages of membership every once in a while. More than ever before are the local doctor's professional connections a matter to be argued and discussed over the back fence." * * * "Far from compelling people to accept any single system of treatment, the basic science laws place the cachet of respectability upon all licensed practitioners of whatever sect. It is not the fault of the laws if, once a man has qualified in the basic sciences, he is able to perceive the fallacy of cult theories and prefers to cast his lot with orthodox medicine."—Two "Sidelights" from *Medical Economics* of May, 1937.

"* * * Let the government, national or community, care for the indigent sick, or the necessarily unemployed but let physicians practice medicine, let them rule as to how medicine should be practiced and let the medical profession pursue the tenor of its ways undisturbed by the interfering latti whose ignorance of medicine is equalled only by the supreme self-conceit of its meddling egoists." * * * The trouble with

state medicine of course is that it is far more 'state' than 'medicine' * * * We must meet organization with organization. As individuals we can do nothing and may be forced to dance to the tunes of sociologists and reformers." Excerpts from the editorial in the May 1937 issue of the *Illinois Medical Journal*.

"* * * The real issue is not state medicine, but what kind of state medicine—whether government shall more properly concern itself with the relief of one group of the population, the underprivileged, in illness, or whether it shall concern itself with better health for all groups of the population, the privileged and the underprivileged alike." A statement of one of our instant problems by Miss Esther E. Lape of the American Foundation, whose report on medical care in this country was recently published.

"WHAT WOULD HAPPEN to the health of the nation, if research in medicine were directed by and for those who wished to take over the physician's practice for political or economic purposes?" Dean Carl W. Ackerman of the Pulitzer Graduate School of Journalism, poses this question, and is quoted by the *St. Louis County Medical Society Bulletin* for May 7, 1937.

"* * * I expect to see the day and it won't take more than twenty years when the Government sees to it that one-third of the population which is as present insufficiently clothed and fed will have a decent living standard." * * * We've just made a beginning. We haven't done anything about sick pensions, pensions for widows, and the like. But we're going to do something about them." * * * This is going to cost money. It's going to cost plenty. There's no sense kidding ourselves about it." Some significant impromptu remarks made by Harry L. Hopkins, Federal Works Progress Administrator.

DR. FREDERICK M. ALLEN wrote to *The New York Times* under date of May 14th in which he "makes out the best possible case for a continuance of medical research along the traditional lines." According to an accompanying editorial in the *Times*, Dr. Allen has written an answer and an explanation to those "who are convinced that we would progress more rapidly in our knowledge of cancer if planning, organiza-

tion and competent direction were substituted for the present laissez-faire policy" We quote Dr Allen in part

"Medicine is not backward. It has advanced fully as fast as any other branch of knowledge, and physicians have reasonable justification to claim that they know their business better than outsiders * * *

As far as can be ascertained, none of the critics has a single suggestion for any line of attack upon cancer that is not already included in research now in progress, neither can these critics name a single development in the entire domain of science that is not instantly seized upon by cancer investigators if it seems to have any application to their subject

Practically all medical discoveries have been made by individuals or small voluntary groups. The idea of an organized mass attack therefore lacks basis in past experience * * *

If the critics can find the money and form an organization for such a group attack upon any phase of the cancer problem, they will undoubtedly contribute valuable new information and their aid will be welcomed by every cancer worker. But cancer and most medical problems differ from industrial problems in that nobody knows which line of attack will be most effectual and directors of cancer labora-

tories do not feel justified in concentrating their limited resources upon one phase at the cost of suppressing progress along other lines which are widely different but equally promising * * *

The great majority of medical investigators work on small salaries or none, and all their discoveries are given to humanity free. Secretiveness, selfish ambitions, and particularly the evil known as 'politics' belong to institutional organizations, rather than to the individual investigators, and they tend to increase, along with regimentation and barrenness, according to the size of the institution and its endowment"

Another slant on the question, presented by the *Times* " * * * If we were to assume that because the past holds out no promise in attacking scientific problems along new lines, there would be an end of all original research

Medicine has become a complex of pathology, chemistry, physics, anatomy, bacteriology, mechanics, genetics, cytology, psychology and half a dozen more sciences. It is about the last discipline that can afford to ignore benefits that are sure to follow the organization of all these branches of knowledge in research laboratories dedicated to the task of discovering the fundamental causes of diseases that still perplex and ways of conquering them"

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked private" All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

A Geographical Dislocation

514 Medical Arts Bldg
Syracuse

To the Editor

Highly complimentary words regarding the Maternal Welfare Campaign in Syracuse made by the Maternity Association of New York City and reported in the May 1 issue of the JOURNAL put Syracuse back on the banks of the Erie Canal and shoved the town some fifty miles eastward, thus removing it from the Onondaga Valley and setting it down in the Valley of the Mohawk

The appreciative article is accepted as a fine gesture, but, please, now that the trains are out of our streets, may we be moved back to our own Valley and placed on the Erie Boulevard?

Sincerely yours,

FREDERICK S WETHERELL, M D
May 4, 1937

We hasten to reduce the dislocation in the hope that business may go on as usual in Syracuse and that we may be made as welcome in that hospitable city as we have in the past—Editor

SOCIETY OF REGIONAL ANESTHESIA

Dr Russell H Patterson was elected President of the American Society of Regional Anesthesia at its meeting in New

York City on April 20. Other officers are Vice-Presidents, Hyman Lieber, M D, Henry S Ruth, M D, Brian Sword, M D, Secretary-treasurer, Paul M Wood, M D

Presidential Address

We Look at Ourselves

*President's Address, 131st Annual Meeting, Medical Society of the State of New York,
Rochester, May 25, 1937*

FLOYD S WINSLOW, M D , Rochester

"O wad some Power the giftie gie us
To see oursels as ithers see us!"

* * *

Perhaps the doctor is likely to forget that while he is looking at patients, patients are also looking at him. He is a trained observer. The habit of inquiry is so ingrained that wherever he goes, be his mission professional or personal, he is constantly studying and evaluating human beings. Now the people with whom he comes in contact are also studying and evaluating him. Not always with so much skill. Sometimes with surer intuition.

Let us not be too quick to say that the crude opinion formed of the doctor by the crowd is an unworthy opinion or one meriting only casual attention. "The learned and studious of thought," said Ralph Waldo Emerson, "have no monopoly of wisdom. Their violence of direction in some degree disqualifies them to think truly. We owe many valuable observations to people who are not very acute or profound, and who say the thing without effort, which we want and have long been hunting in vain. The action of the soul is oftener in that which is felt and left unsaid, than in that which is said in any conversation."

Today it seems to us, who are doctors, that the eyes of the world are turned upon us. We have invited it. We must not discourage it. In our efforts at self-improvement we have been free to comment on our own faults and we must not deny this privilege to others. If knowledge has increased, and it has increased, if skills have improved, and they have

improved, if the code of honor has been raised, and it has been raised, this is due to our inveterate habit of self-analysis and acid criticism. Nobody outside the profession can possibly be so severe with us as we are with ourselves. Perhaps we do not point our barbs with the wit of Bernard Shaw or the sarcasm of H. L. Mencken, but we shoot at a truer mark—the target of our faults rather than our foibles. We have nothing to fear because the eyes of the world are turned upon us. There is nothing to hide. Misunderstanding always precedes understanding, and is easily dispelled if we trouble ourselves to dispel it. We should encourage those who speak in criticism. We look at them, they have a right to look at us. Let us sit down at the table with our critics, and discuss the flaws they find. Many of them may be flaws we also have found, and are taking steps to remedy, of which the critics are not fully aware. Some of the flaws are not blemishes at all, but only appear so through snap judgments based on insufficient facts. Let us discuss the whole of our problems with our critics, taking plenty of time to appreciate diverging viewpoints, to look at each other.

In such conversations we are sure to encounter the situation so well described by Oliver Wendell Holmes. He stated that when two persons are talking with each other there are really six, not two. You as you think you are, I as I think I am, you as I think you are, I as you think I am, and of course, both of us as we really are. What two persons must do first when they enter into conversa-

tion is to find the least common denominator between their personalities *It can always be found* It can be quickly found if both come in a spirit of willingness to look at each other If I may be allowed to quote again from the great Transcendentalist I would like to use his words "In all conversations between two persons, tacit reference is made, as to a third party, to a common nature

In dealing with my child, my Latin and Greek, my accomplishments and my money stead me nothing, but as much soul as I have avails"

To look at ourselves means to make a comparison with what we hope we may be This attitude has been characteristic of the medical profession since the earliest days of history Not alone of the medical profession, it has been characteristic of the race Man envisions his ideal state, he uses the means he thinks will help him attain the good life, he moves toward the betterment of himself as a corollary to improvement of his environment, he sees a light burning and follows it Ours is not the only light Others burn brightly in the hearts of men Even in days of confusion such as we are living in at present, it seems to me that our unrest is due to the fact that we all look through a different glass window and see the light in varied form and color It is, if we but knew it, the same light, the light of truth, though no man has eyes to see it naked By different paths, we approach the same goal There is an amazing correspondence between Emerson's Over-Soul, Swedenborg's Grand Man, and Freud's Super-Ego

So men seek the good life in different ways because men are different Constantly we must stop to ask if ours is really the good life We may become so immersed in technics that our very acquisition of knowledge retards the developments of wisdom As we become more efficient we can easily become less effectual We seek in vain today for the counterparts of Oliver Wendell Holmes, Sir William Osler, William H Welch, who moved so ably with freedom among

the crowd and with ease among the elect, bringing to the one what was needed from the other, helping all of us to see ourselves as others see us These men were not too busy to give time to the humanities How many of us do as Osler did, and devote a period of each day to our Greek? Few indeed seek that culture which means an acquaintance with the best thought of the great minds of all ages The minute we leave college, it seems, we cease the broadening process and begin the narrowing one President Conant of Harvard recently told a graduating class, "Choose your rut now, you will be in it for thirty-five years"

The doctor is indeed fortunate that his calling brings him in contact with people of all sorts This saves him from falling too deeply into the rut which he must follow all his life It gives him the opportunity to draw upon many sources of inspiration, it tests his mettle daily, it refreshes his viewpoint, it challenges instantly his attitudes and aspirations But there is a handicap involved in this contact of which he may not always be aware He comes as a savior of the sick He is as God His word is law There is always a tendency for a man endowed with absolute authority in the realm in which he is proficient, to carry that feeling of power into realms where he is not so proficient He, himself, must provide the check and balance here, and if he does not, the world will provide it for him From time to time we should take stock We must look at ourselves and try to see ourselves as others see us

More is expected of us than that we go about questioning men We must answer questions, too Socrates was called the gadfly of Athens because he asked questions and seldom answered them I often wonder what would have happened to Socrates if he had answered the questions which he asked, if people had questioned him as intelligently as he questioned them Perhaps he would have escaped the hemlock I do not doubt he fully knew, and did not care, how uncomfortable he made other people feel

He described himself as a midwife practicing on the souls of men when they are in labor, and diagnosing their condition, whether pregnant with the truth or with some "darling folly." He forced people to take a good look at themselves. They resisted, not what they saw, but the man who made them see it. This pain would have been spared them had they made the effort for themselves to answer the questions which he asked. So if we are to look at ourselves calmly and to good

purpose, we must first take thought to see ourselves as others see us. Our ideal, call it the Over-Soul, Grand Man or Super-Ego, may be modified to add new colors to the picture we hold up before us of what we would like to be. Then it will be unnecessary to join in the lament of the parodist who turned Burns' couplet neatly inside out

"O wad some Power to ither's gie
To see Myself as I see Me!"

PNEUMONIA CONTROL PROGRAM

The following letter was recently sent out by the Federation Health Committee, the Home Demonstration Agents' Committee and the College Committee to Home Demonstration Agents, County Executive Committees, and County Health Committees

Dean of the Colleges of Agriculture and Home Economics Director of the College
CARL E. LADD FLORA ROSE

NEW YORK STATE COLLEGE OF HOME ECONOMICS
AT CORNELL UNIVERSITY, ITHACA, NEW YORK

*Dear Home Demonstration Agents, County
Executive Committees and County Health
Committees*

Your interest in the problem of pneumonia control has undoubtedly been aroused by the reports you have heard of the campaign undertaken in Franklin County this past year and by the articles written by Dr. E. S. Rogers, which appeared in the Health News Letter of the State Federation of Home Bureaus. Pneumonia is a statewide problem. Twelve thousand (12,000) deaths occur in New York State every year as a result of pneumonia, three-fourths of them people under sixty-five years of age. This ranks as the third highest of the causes of death and is far and away the highest cause of infant death.

This large number of deaths can be reduced by methods now thoroughly understood by the medical profession. Lay education is one of the most vital steps in the program for control.

A recent meeting of the health committees of the New York State Federation of Home Bureaus, the New York State College of Home Economics and the New

York State Federation of Home Demonstration Agents, was held in the office of the State Department of Health in Albany. The Federation was represented at this meeting by Mrs. C. S. Goodwin, the College by Miss G. Dorothy Williams, and the Home Demonstration Agents by Miss Odessa Dow, Miss Mabel Milhan and Mrs. Natalie D. Crowe. The State Department of Health was represented by Dr. E. S. Rogers, in charge of Pneumonia Control, and Mrs. Ethel M. Hendriksen, Field Instructor in Public Health Education.

As a result of this meeting the health committees suggest

1 Where there is sufficient interest in a county in pneumonia control, it would be well to include it in next year's extension program.

2 Many county medical societies are preparing to organize campaigns which would include lay education. This presents an opportunity for Home Bureau groups to build up a valuable relationship and a cooperative program. Since this is a highly scientific subject, this should be a cooperative project with the County Medical Association.

3 The plan that was used so successfully in Franklin County may be adapted to local situations. That included four lessons. The course started with a training school for local leaders which was given by Dr. Rogers and the District Health Officer. In addition to

giving material for Lesson I in the local units on "What is Pneumonia and Why is it a Public Health Problem," the leaders were also given general background for the whole series. Lesson II on "Nursing Care of Pneumonia in the Home," was given in the local community by public health nurses. Lesson III was a summary and survey of local facilities and a constructive consideration of personal and community responsibility. In addition, they had mass meetings under the auspices of the District State Health Officer, who is in a position to give much valuable advice on local conditions. Whenever it is possible, a local physician should present the introductory material given in the first lesson in each unit. The local leaders will need to be carefully chosen in order that there shall be perfect co-operation with the local medical authorities.

It would be advisable to start these lessons in the fall so that the information could be broadcast in anticipation of the next pneumonia season, which begins in December.

If your county wishes to undertake such a series, the committee recommends that

1 Your home demonstration agent and health committee meet with the County Medical So-

cety or its representative, to discuss your plans and obtain their consent and approval. We are enclosing a list of the presidents of the County Medical Societies. Many of these organizations include a chairman of public education among their officers.

2 Write to Dr. E. S. Rogers, State Department of Health, Albany. He will be glad to help you adapt his plans to your county situation and give you dates for your meetings.

3 Notify the chairman of the Home Bureau Federation Health Committee, the College Health Committee and that of the Home Demonstration Agents of your plans so that each of these groups may give you any help you may need.

(Signed) FEDERATION HEALTH COMMITTEE

Mrs. Elston Holton
Mrs. De Witt Crowell
Mrs. A. D. Sturges
Mrs. C. S. Goodwin, *Chairman*

HOME DEMONSTRATION AGENTS' COMM

Mrs. Ann P. Duncan
Mrs. Natalie D. Crowe
Miss Odessa Dow
Miss Mable Milhan, *Chairman*

COLLEGE COMMITTEE

Miss Helen Mönsh
Miss G. Dorothy Williams
Dr. Helen Bull
Miss Carrie C. Williams
Miss Lorna Barber
Mrs. Martha H. Eddy, *Chairman*

HEALTH "TALKIES" FREE TO ALL

The Healthmobile, the State Health Department's traveling motion picture unit, has been completely equipped with sound motion picture projectors and is ready to put on up-to-date talking motion picture shows on health subjects. Talking slide film productions, specially projected health pictures synchronized with voice, are another new feature of the modernized Healthmobile.

This service is available without cost to any community within the State at the request of health officers, health organizations, and other responsible persons and groups. Because of the time and expense incurred in travel, individual engagements are not booked for the Healthmobile, as a

rule, except within reasonable distance of the central office at Albany. The usual procedure is to schedule a series of meetings to be held in a county or community over a period of a week or more, the meeting places being arranged by the persons or organizations requesting the service. The talking pictures have attracted large audiences giving excellent opportunity for a local speaker to present community health projects or to give a talk on some health subject.

Complete information concerning the Healthmobile service may be obtained from the Supervisor of Visual Instruction, New York State Department of Health, State Office Building, Albany.

THOSE LITTLE PHARMACAL ADS

The use of prescription forms supplied by pharmacists and bearing the pharmacist's name is considered unethical in Great Britain. A note displayed prominently in *The British Medical Journal* says "The attention of the Central Ethical Committee of the British Medical Association has been drawn to the fact that certain members of

the profession are using prescription forms supplied by a firm of chemists the name of which is printed at the foot of the form. The Committee considers it very undesirable that medical practitioners should make use of prescription forms bearing the name or the advertisement of any individual pharmacist or firm of pharmacists."

Economics

Medical Economics—Why?

S J APPELBAUM, M D, Rochester

Consultant in Medicine, School of Medicine and Dentistry, University of Rochester

In much of the matter appearing in various periodicals, both lay and professional, there is considerable discussion about medical economics, but altogether too little discussion of the subject itself. Consequently, much heat has been generated, but too little light to clarify the subject. On the contrary so much smoke has arisen that the subject is buried in obscure clouds.

If we will consider this problem in the same manner as we attempt the solution of a scientific problem, let us say, as you would attack a medical problem, certain questions will present themselves. I have asked myself these questions and propose to discuss them with you.

I

First Why is it that we have a question of medical economics in the United States?

Let us consider the maladjustments in medical economics as a disease, a disease, however, which not only has attacked the medical profession, but a disease with which the public is also afflicted. From this viewpoint, what are the etiological factors affecting medical economics? It is true we cannot conduct scientific experiments with controls in searching out such possible causative factors, but we can rationalize and attempt to come to some logical conclusions. Such an analysis of the problem might suggest possible remedies for the condition.

Has any change taken place in the character of medical practice, let us say, in the past twenty-five years? I can speak from personal knowledge of that period as I began practice in 1910. Has this change in the character of medical practice any relationship to the problem of the economics of medicine?

Perhaps one of the most important

changes has been a decrease in the demand for certain types of medical service, in part because of the remarkable advances in medicine with a consequent reduction in mortality and morbidity rates. A contraction of the field of private medical practice has taken place resulting in part from the application of the principles of preventive medicine. This contraction has four major causes.

1 Sanitation—sewage and drainage, protected water supplies and protected milk supplies.

2 Immunization—typhoid, diphtheria, scarlet fever, with efforts in other contagious diseases.

3 Modern care of tuberculosis—segregation in sanatoria.

These three causes together may be grouped under preventive medicine. The respective mortality rates for 1910 and 1935 in Rochester illustrate the results of preventive medicine.

Death rate per 100,000 population

	1910	1935
Typhoid	13 7	3
Scarlet fever	21 1	6
Diphtheria	16	1 8
Tuberculosis	157 7	13 6
Gastrointestinal	124 3	5 3

Total Death rate per 1,000 population

1910	14 54
1935	10 18
Over 1,300 lives saved in 1935	

4 Contraction of the field of private practice through greater use of socialized service, clinics and ward service.

In the decade from 1921 to 1931 the population of the United States increased about twenty per cent, but the number of patients treated in outpatient departments increased about one hundred and twenty-five per cent and the number of visits increased about one hundred and fifty per

cent. In 1927 twenty-five per cent of the population of the City of New York utilized outpatient departments. Less than ten per cent of this number were known to the Department of Public Welfare or voluntary agencies as indigent. Excepting teaching hospitals, twenty-five years ago ward beds comprised but a small portion of the average private hospital. At present, in the average hospital, the reverse is true. In recent years the number of days care given in the wards of the larger hospitals in Rochester was more than twice the number of days care given to private patients. In the combined Strong Memorial and Municipal Hospital at Rochester last year, thirteen per cent days care was given to private patients and eighty-seven per cent given to ward patients. What is true in Rochester is true over the country, to a lesser extent in smaller cities and to a larger extent in larger cities.

Some compensatory expansion of private practice has taken place during this period due to (a) immunization procedures and preventive practice in general, (b) workmen's compensation practice, (c) a considerable expansion in the field of surgery.

Reference was made to a contraction of the field of private practice through greater use of socialized service as exemplified by the increased use of clinics and ward service. This situation demands further analysis. Of course the obvious answer to this condition is that the past seven years have been lean years. We have been going through a period of depression. When we say going through, it is implied that as the depression had a beginning, it will also have an end. We all hope so. If you go through something, it must have both beginning and end. But this situation was true before the depression. Why has this happened? Of the many reasons for the contraction of the field of private practice through the greater use of socialized service three stand out as fundamental.

1 An increasingly larger proportion of our population has an inadequate income.

2 The pressure to maintain a high standard of living often prevents adequate provisions for medical care.

3 The increase in technical medical procedures in the past two decades, with a corresponding increase in cost for medical care, has increased the cost of medical service in the exceptional cases.

The first two given reasons are purely economic. I believe the consideration of the economics of this question is essential for a fuller understanding of the problem.

Now as to the income of the population.

The figures for the distribution of incomes for 1928 are easily accessible, but you must remember that as to incomes 1928 was a good year.

From the census report of 1928, the incomes of twenty-nine million families have been studied. The families average $4\frac{1}{2}$ persons.

Fourteen per cent had incomes of less than \$1,000.

The average wage per wage earner is between \$1,200 and \$1,300.

Fifty-five per cent had incomes of less than \$2,000.

This is a reasonable basic income adequate for the maintenance of a decent standard of living.

Seventy-seven per cent had incomes of less than \$3,000.

Six and one-half per cent had incomes of over \$5,000.

Less than three per cent had incomes of over \$10,000.

If your income is over \$10,000 then you are in a very select group.

If the minimum family income were \$2,000, and if the purchasing power of the dollar remained about where it is, there would be no occasion for this pressing problem of medical economics. In our ordinary economic relationships the ability to purchase goods or services depends on income. However, in the medical profession there is an effort to grade fees in accordance with ability to pay. Where there is no ability to pay, service is given without charge. When the purchasing power for service becomes lowered, as it has during the past few years, a corresponding inordinate increase in the demand for free medical service must be expected.

The group with little or no income, of course, presents the major economic problem, both to the taxpaying public, the voluntary agencies, and to the medical profession. Facilities for the medical needs of this group fortunately exist in the average community. Here in Rochester, where it is true, our standards may be higher than the average, fairly complete facilities exist to meet the medical needs of this group. To be sure they are not

met one hundred per cent but we cannot overlook the hardships under which the average taxpayer meets his tax bill and the difficulty of raising adequate funds for the voluntary health agencies. We have facilities for the care of the indigent in the home through a staff of city physicians. Adequate facilities for clinic care are present in the outpatient departments of the various hospitals. We have arrangements for supplying the reasonable medical supply needs, such as medicines, glasses, belts, corsets, trusses, orthopedic necessities, and dental care. Hospitalization, when indicated, is given not only to the indigent, but also to the large group of borderline cases, individuals who are able to meet all their other needs except hospitalization. I have referred to the local situation because I am intimately familiar with it. However, to a greater or lesser extent, these same facilities exist elsewhere.

Under normal conditions, the medical profession in conformity with medical ethics, considers it its duty to furnish free medical care to the indigent. However, during the past years, when as much as twenty-five to about fifty per cent of the population secures free medical care in one form or another, then we have reached a condition where we have a public problem and not merely a medical problem. When large numbers of people are in need of medical care, which they are unable to purchase for themselves, even if this medical care is not in each instance a matter of public health, nevertheless, the accumulated need of such care does become a matter of public health and as such should become a matter of public responsibility. To the extent to which private philanthropy is able to supply this need, to that extent public funds should not be used, but when the needs exceed the resources of private funds, then tax funds must step in to fill the gap. The frankly indigent are assumed as the responsibility of the local government unit. They are supplied with food, shelter, and clothing. Medical care is recognized as the fourth essential need and also should be assumed as a community responsibility. Clear-thinking, however, should differentiate between supplying the facilities for medical care and the supplying of the actual professional service. The great increase in free medical care to the indigent has resulted in a corresponding contraction in

the field of private practice. I do not know how long physicians should be expected to carry this community obligation. It is time to give thought to the question of some method of compensation to the physician for carrying this burden of community responsibility.

Another factor which has produced a decreased ability to purchase medical service is an increasingly rising standard of living. Things which in the past were considered luxuries are now considered almost essential, the automobile, the modern home with central heating and electrical refrigeration, the radio and the innumerable labor saving devices for homes.

Workers, even in low income groups, have been educated to desire and purchase these semi-luxuries. Publicity and advertising has created that mental attitude on the part of the consumer. In 1929 nearly two billion dollars, over two per cent of the national income and more than twice the amount paid to all physicians in this country, was spent on advertising. Workers have been encouraged, through partial payment plans, to mortgage their future earnings for these semi-luxuries, with the result that when the need arises for expenditures for medical services, there are neither funds nor other provisions for the payment for such service.

The third of the major reasons for the increase in socialized service is the increase in technical laboratory procedures in the exceptional cases with a consequent increased cost for medical care. I question whether I need spend much time on this problem. I need only refer to the use of the x-ray for diagnosis and therapy, the electrocardiogram, the determination of basal metabolism, the various and many chemical and cytological examinations of body fluids and secretions to indicate definitely what I mean. In private practice these services, frequently necessary, are comparatively expensive. Individuals, and often physicians, consequently, in many instances seek socialized service to meet this need.

Physicians as a rule are opposed to socialized medicine. What, no doubt, is meant, is State medicine. I question if physicians realize to what extent the practice of medicine has already become socialized, socialized in the sense that the service is furnished through public and private philanthropic funds. I venture to say that

fully twenty-five per cent of the ordinary office or home type care, and over sixty per cent of hospitalized care, is socialized in the above sense

So far I have discussed several phases of the problem of medical economics associated with the demand for medical service. I have indicated that there is a decreased demand for private medical service due largely to a contraction of the field of private practice. This contraction as suggested is due to public health activities, preventive medicine in private practice, and to increased use of socialized medical service. In discussing medical economics from the economic standpoint, it becomes essential to give consideration to the reciprocal factor to demand, which is supply.

II

This brings us to a second question. Has any change taken place in the supply of medical service in the past twenty-five years? Is this change a factor in the economics of medicine?

There are at present about 160,000 physicians in the United States, a ratio of about one physician to 780 population. In 1909 there were about 134,000 physicians with a ratio of about one to 570. On the surface then it would appear that we have a comparative under supply of medical service, the population having increased more rapidly than the number of physicians. However, it is of interest to note that the reverse is true in New York State. In 1898 the ratio was 790 and in 1928 it was 649. In Rochester the ratio at present is about 1 to 600. In 1910 there were 131 medical schools with 4,440 graduates. In 1932, as a result of a campaign for high standards in medical education, there were 76 medical schools, 66 of which are approved, with 4,936 graduates. In 1935 about 5,500 new licentiates were privileged to practice medicine. Annually about 4,000 physicians die. We have then an annual increment of about 1,500 physicians. It is interesting to compare the ratio of physicians to population in our country with a few European countries

Germany	1560
France	1690
Norway	1760
The Netherlands	1820
Belgium	1850
Sweden	2890

If our ratio were the same as in England and Wales, we should have 82,500 physicians, if the same as Germany 79,000, France 73,000, Sweden 42,500, but we do have 160,000.

This problem would be simpler if there were an even distribution of physicians throughout the country. However, the distribution varies greatly. California has one physician to about 480 people, but Montana and South Carolina about one to 1,430. About one-half of the total population of the country is in communities of 5,000 or less, but only about twenty per cent of recent graduates locate in such areas. The tendency in the past twenty-five years has been a concentration of physicians in larger centers of population. With this concentration of physicians in the larger centers, there has also taken place an increased tendency to specialization. Graduates are choosing specialties rather than general practice, so much so that the specialties in some instances are becoming overcrowded.

I stated that the ratio of physicians to population in the United States in 1909 was one to 570 and at present about one to 780, indicating that we have at present a comparative under supply of physicians. Such a conclusion, however, is quite fallacious. It would be based upon an uncritical consideration of associated factors. Statistics have a significance, but only if correlated with a background, a setting in which their true value is brought out. What are the correlated factors which have a bearing on the deductions which may be drawn from these figures? These are many. I referred to some of them when I took up the question of the demand for medical service. There has been a remarkable diminution in the prevalence of certain diseases which formerly kept physicians busy. There has been a great increase in the use of socialized service. In addition there has been a considerable increase in hospitals and hospital beds. In 1909 our total number of hospitals was 4,359 with a capacity of 421,065 beds. In 1931 we had 6,613 hospitals with 974,115 beds. During this period the

United States	780
Canada	1050
Switzerland	1250
Denmark	1430
England and Wales	1490

population increased about thirty-five per cent, hospital beds about one hundred and thirty per cent. During this same period there has been even a greater increase in clinic facilities. These means for centralized medical care reduce the number of physicians needed for the required service. During this period we also definitely emerged from the horse and buggy days. The automobile, the telephone, and good roads gives the competent physician a much wider area for service and make it possible for him to cover the needs of a much larger number of people. Interpreting the statistics then, in the light of concurrent factors, it can be definitely stated that we do not have an under supply of physicians, but a decided over supply. Many authorities state that a desirable ratio in the United States would be one physician to 1,000 to 1,200 population. If this is true, and it is my belief that it is, then we at present have a surplus of about 30,000 physicians and we are adding to this surplus about 1,500 annually. We have, then, relatively more physicians than are needed to provide an adequate medical service. The supply of service is out of line with the demand. Medical service is in conflict with a fundamental economic axiom.

III

It is quite unnecessary to go into the question of the cost of producing medical service, that is, the cost of education and the overhead cost of delivering medical service. These factors are beside the point. As to income, it is of interest to note, because it has a bearing on the problem, that even in prosperous times about fifty per cent of the physicians of the country had a gross annual income of \$3,800 or less, and that twenty-five per cent had a gross annual income of \$2,300 or less.

What conclusions are we warranted in drawing from this rather brief and sketchy consideration of the economics of medicine, from this economic consideration of the problem of supply of and demand for medical service? What suggestions can be offered to remedy this unbalance of demand with supply? Necessarily such suggestions, viewing the problem as economic, should center themselves in relationship to supply and demand. What can be done to increase the demand for private medical service?

What can be done to decrease the supply of medical service so that the supply will not excessively exceed the demand?

First, let us consider what cannot be advocated. This is so apparent and fundamental that merely reference to it indicates its undesirability. We cannot advocate any contraction in sanitary and public health measures. Such activities and all activities of preventive medicine regardless of their effects on the economics of medicine, should be expanded to the fullest extent. The interests of the public are of greater importance than of any one particular group. However, insofar as it is consistent with efficiency and with the attainment of the desired objectives, as much of the programs of preventive medicine as can be carried out through private practice should be so carried out.

There are definite measures which can be taken to improve the economics of medicine. What can be done to increase the demand for private medical service? I have suggested that the high cost of diagnostic procedures do have an adverse effect on private practice. It diverts private practice into socialized channels. These most common procedures are x-ray, basal metabolism, and electrocardiograph studies, and various chemical and cytological examination of body fluids and secretions. I am questioning if it would not be desirable to make such facilities more freely available to the physician in private practice for private patients of the low income group. Early diagnosis and indicated treatment often is delayed because frequently such examinations are not made or are put off. The cost is too high. It is not clear in my own mind whether such activities should be carried on as an extension of existing clinic facilities, or of public health activities, or as projects fostered by privately endowed funds. I believe this entire question deserves careful consideration.

Can anything be done with reference to the much complained of abuse of free clinic care and free medical care in the hospital wards? I am certain that the enforcement of more strict regulations governing the admission of patients to such services will in a large measure correct this abuse. There is no reason why anyone able to pay a reasonable private fee should receive free medical care, either in the clinics or in the

hospital wards. The care of such individuals should not be a burden on either public or private funds.

There is no possession which the individual should value as highly as health. Unfortunately he usually gives it that high value only when he lacks it. The public is prone to consider medical care, unless urgently needed, as a luxury. Can the public be educated to view medical care as a necessity with a sufficient appreciation for it to be willing to provide for it? Can anything be done to educate the public to maintain and seek health?

It is estimated that the total annual average national expenditure, both public and private, for medical care is about three billion dollars, somewhat over three per cent of the average national income. About 2½ billion is a direct expenditure by patients, of which physicians in private practice secure about \$800,000,000.00. Of the consumer's dollar consequently less than one per cent is expended for private medical care, about as much as is expended for patent medicines and drugs, less than is spent for candy and about one-half as much as is spent for tobacco. In his own interests should the consumer be educated to make a wiser distribution of his dollar? This is an economic problem which has a bearing on medical economics. Industry often creates demands for its products. It not only takes the consumer's present dollar, but also mortgages his future dollar. This matter of educating the public to seek health is a question to which the county, state, and national medical organizations should give more thorough consideration. It demands the coordinated efforts of organized medicine. An intensive educational campaign may accomplish much in creating an increased demand for private medical service. Such an effort would be fully warranted not only in the interest of the medical profession, but also in the interest of public welfare.

Now, what can be done to decrease the supply of medical service? Can anything be done to bring about a reduction in the number of physicians? Much can be done in that direction which would be of mutual benefit to the public and the medical profession. But this problem involves the entire question of medical education. Too many physicians are being graduated. We still have too many medical schools, *but*

not enough good medical schools. We have too many physicians, *but not enough good physicians.* Smaller numbers should be accepted into the entering classes of the medical school with more stringent standards relative to scholarship, character, and personality. Although the Medical School of the University of Rochester could accommodate an entering class of seventy-five, it accepts only about forty-five. This school recognizes this problem and is doing its share to meet it.

Graduates are going into specialties in too large numbers. From fifty per cent to seventy-five per cent of the recent graduates of the high grade medical schools are specialists. The curriculum of the medical school should lay greater emphasis on general practice and prepare its graduates for such service. They may need be advised in their selection of subjects and in the type of internship for this purpose. Emphasis on these factors will, no doubt, not only decrease the tendency toward specialization, but also result in a better distribution of physicians. Specialists tend to concentrate in the larger cities. The curriculum also should lay greater emphasis on preventive medicine and public health. If properly prepared, our young men could go to the smaller communities and sparsely settled areas with satisfaction to themselves and to the people whom they would serve. These men should be subsidized with salaries for public health work. The small towns and rural areas should have small hospitals sufficient for the areas to be served and roads adequate for transportation needs. A program of this character, if put into effect, would help greatly to solve the problem of the maldistribution of physicians and of the consequent inadequate service to rural areas. However, education of the public is necessary for such a program.

In relationship to this discussion, the population may be divided into three groups, a small group with good income with whom we need have no concern, a larger group of frankly indigent for whom fairly sufficient provisions exist, and a still larger group with medium income who are able to finance their ordinary medical needs, but who find it difficult to finance their extraordinary needs. A good percentage of this group do carry some form of insurance to cover such contingencies. It is estimated that during the average year about ten per cent

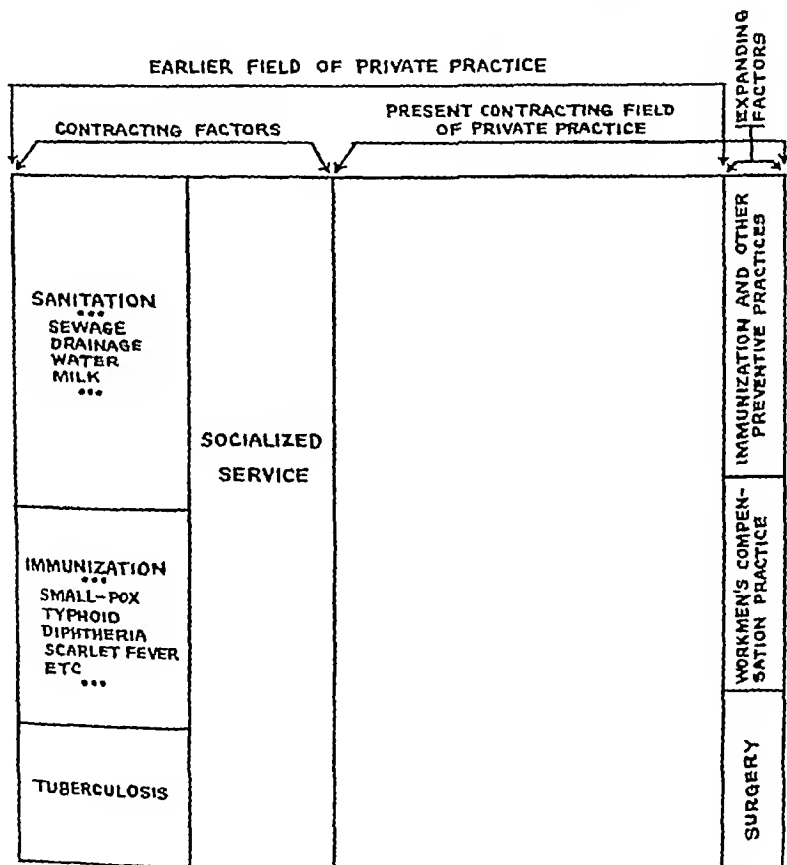
of the population suffer from severe illness. But it is rather difficult to estimate what portion of that ten per cent is seriously financially embarrassed by severe illness. Our attention is usually attracted to the unusual case.

IV

I have not referred to Compulsory Health Insurance. I have attempted to give a constructive analysis of the problems of medical economics as they effect both the public

But I believe that Compulsory Health Insurance is not for the good of the public. Under any compulsory scheme, a very large percentage of the money raised for health needs would be diverted to administrative purposes and to that extent would decrease the use of funds for direct health needs. Furthermore, in all these plans, both compulsory and voluntary, no provision is made for the care of the indigent. I understand that in Germany there are as many individuals employed in the administrative set-up for Health Insurance as there are physi-

CHART I—CHANGES IN FIELD OF MEDICAL PRACTICE



and the medical profession. But for the purpose of not seeming to evade this issue, reference must be made to that supposed panacea of the ills of medical practice and medical service.

In my opinion Compulsory Health Insurance is not a constructive solution of our problem. On the contrary, it is destructive. I know that its advocates are well meaning and have the good of the public in mind

cians giving service. Under any governmental program, the practice of medicine would be hampered with a large amount of clerical work, red-tape, arrogant bureaucratic regulations and supervision, and insidious demoralizing political factors. The practice of medicine in such an environment would not attract the right kind of men. Yes, the right kind of men would continue to go into research, but the results of

research are of value to the public only as they are intelligently applied to the public by the men in everyday practice. It is my belief that under government control the public would not receive as good a quality of medical service as prevails under our present system.

My basic premise on which the above opinion is founded is that medical practice should be organized in the interests of those receiving medical service. My disagreement with the proponents of Compulsory Health Insurance is based upon factors

inherent in the proposed fundamental change, chiefly, compulsion with the associated regulation, which basically are not in the interest of the public.

Some changes are no doubt necessary. Conditions are not perfect under the present system. They would be less perfect under a compulsory system. The cure, however, should not be worse than the disease. Let us not amputate a leg because the patient has an ingrown toe-nail, or, with all its implications, do a phallic amputation because the patient has a phimosis.

FERTILITY AND CONTRACEPTION IN NEW YORK AND CHICAGO

Raymond Pearl, Baltimore (*Journal A M A*, April 24, 1937), compared certain aspects of the reproductive histories of 3-951 women dwelling in New York City and 3,589 living in Chicago. All the women in both samples were living in wedlock, had been married only once, and were free of any recognized form of gynecologic disease. The age distribution of the women was substantially similar in the two groups. 1 The white women of the Chicago sample appear to be somewhat less fertile on the average as a group than the white women of the New York sample, whether measured by pregnancies experienced or live births produced. 2 Attempted contraception was more frequent among the Chicago than among the New York white women, the percentage of contraceptors being sixty-four in the former city and fifty-three in the latter. 3 As indicated by average lapse of time between marriage and the beginning of first pregnancy in primiparas, contraception as actually practised was more effective among the New York women than

among the Chicago women. The same result, but with a smaller quantitative difference, characterized the relative effectiveness of contraception as practiced by the multiparas, when measured by the criterion of the average number of years of married life spent in the nonpregnant state. 4 As measured by the degree of lowering of pregnancy and live birth rates per hundred years of exposure to the risk of becoming pregnant, the Chicago white women again were, as a group, to a substantial degree less efficient contraceptors than the New York women. 5 Reproductive wastage rates in general, and induced abortion (self or criminal) rates in particular, were lower among the Chicago white women than among the New York women. 6 The data from both cities indicate that women practicing birth control resort to criminal abortion more frequently than do noncontraceptor women. 7 Attempted contraception was less frequent and less effective among the Negroes than among the whites in the samples from both cities.

TO PENALIZE DRUG FAKING

Drastically increasing the penalties for counterfeiting drugs and medicines, Representative Virginia Jenckes of Indiana has introduced a bill placing enforcement activities with the "G-men" of the Department of Justice, according to the *Washington Herald*.

At the present time drug counterfeiting is only a misdemeanor, the penalty being a modest fine. The new bill makes such counterfeiting a felony, punishable by a fine not exceeding \$10,000 for each offense or by imprisonment not exceeding five years, or both.

Mrs. Jenckes says her legislation, making

manufacturers responsible for observance of the law, will build up a great confidence in the minds of the people.

She is sure of support from responsible manufacturers and distributors in her campaign to protect American homes from racketeers.

The proposal already has the active support of J. Edgar Hoover, head of the famous G-men, who has been eager to break up drug counterfeiting gangs. Mrs. Jenckes also revealed that she had conferred with Attorney General Cummings and Secretary of Agriculture Wallace before introducing the bill.

Public Health News

A Qualifying Course for School Physicians

The following course will be given at State College for Teachers, Albany, during the coming summer session and will occupy one hour daily for six weeks

Administration and Supervision of the School Health Service Program

2 hrs For superintendents, principals or other school administrators or supervisors who wish to become familiar with the desirable methods of medical inspection, hearing and vision tests and other special tests, follow-up service, securing treatment for remediable defects, the keeping of records and making reports

Actual typical situations will be analyzed, the problem discussed and programs developed to meet the special needs. Attention will be given to relationships between school officials and officials of health and welfare departments, social agencies, family physicians, etc.

Physicians doing school work and school nurse teachers with permanent or health teachers certificates will be admitted to this course. Credit for this course may be offered by physicians toward meeting requirements for certification as school medical supervisor

Instructors Dr Henry F Mace, Miss Marie E Swanson, of the State Education Department

In order to qualify for a full-time School Medical Supervisor's certificate other courses may be taken in the same session to make up the required six semester hours credit or this course may be taken now and other courses added later

Further information may be obtained from the office of the registrar, New York State College for Teachers, Albany or Dr H F Mace, Medical Inspection Bureau, State Department of Education

Diagnosis and Treatment of Syphilis and Gonorrhea

The Bureau of Social Hygiene of the Health Department of the City of New York wishes to announce the organization of a short, practical course in the diagnosis and treatment of syphilis and gonorrhea and other genitoinfectious diseases to be conducted by its own personnel in its own clinics

The salient features in the method of instruction are clinical teaching frequent demonstrations, very short didactic lectures, thorough clinical laboratory training, and above all individual instruction and practical experience by each student in all of the various technical procedures necessary in the treatment of these diseases

Only eight students can be accommodated simultaneously. It is desired that these students be young physicians, who have had internships in general hospitals. The time required is six two-hour sessions weekly for a period of three months, (divided into

four morning and two afternoon sessions) per week, or for those whose time does not permit of such concentration, three two-hour sessions weekly for six months (divided into two morning and one afternoon session per week). Total—72 sessions, 144 hours

All physicians who enroll for the course will be expected to attend punctually and regularly

At the successful completion of the course a certificate will be issued by the Commissioner of Health, attesting to the fact, officially, that such physicians have undergone the training as described above

Students will be selected on the basis of formal application and a personal interview with the Director of the Bureau of Social Hygiene

Application blanks may be secured from the Director Bureau of Social Hygiene 125 Worth Street, New York City

Special Pneumonia Control Appropriation

Growing public interest in pneumonia control culminated in the passage of the Schwartzwald-Hawkins bill which was scheduled to be signed today by Governor Herbert H Lehman

The program provided for the presence at the signing of the bill of the legislators who sponsored the measure, representatives of the State Committee on Public Health and Medical Education of the Medical So-

ciety of the State of New York, of the State Department of Health and of the Department's Advisory Committee on Pneumonia Control

The new law appropriates \$400,000 for use by the Department in the prevention, diagnosis, treatment and control of pneumonia. Of this sum, \$150,000 is made available to defray the cost of new construction needed by the Division of Laboratories and Research to meet the increased load of serum production. The law has been so drawn that it will be possible for the Department to aid New York City by furnishing pneumonia serums to supplement its supplies in the event of an emergency. The appropriation will be used primarily to finance the production of therapeutic sera

for all types of pneumonia for which serum is recognized as effective

The Department will be enabled to undertake a more comprehensive general pneumonia control program with particular emphasis on the dissemination of information to physicians and on general education of the lay public. It is proposed also to undertake special studies of the epidemiology of pneumonia in the hope of arriving at more adequate control measures

A series of feature articles on pneumonia and its control written for the *New York Evening Post* by Karl Bostrom had a large part in creating the public sentiment which supported this measure. It also had the active support of the medical profession both in New York City and upstate.—*Health News*, April 26, 1937

Medical News

Albany County

DR ELLIOT C CUTLER, professor of surgery at Harvard Medical School, was the principal speaker at the monthly meeting of the Medical Society of the County of Albany in the auditorium of the Albany Pharmacy College on April 28. He spoke on "Chronic Cicatrizing Enteritis." Discussion was led by Dr Arthur M Dickinson

Broome County

DR DANIEL CHARLES O'NEIL, Chief of Staff of the Endicott Johnson medical centers and hospitals, died on April 22 at the Wilson Memorial Hospital in Johnson City

Cayuga County

THE REGULAR MONTHLY meeting of the woman's auxiliary of the Cayuga County Medical Society was held on April 15 at the City Hospital in Auburn. Miss Florence Webster gave a travel talk on her trip around the world

Chautauqua County

THE JAMESTOWN MEDICAL society was addressed by Dr Douglas P Arnold, attending physician of the Buffalo Children's hospital, whose subject was "The Etiology, Diagnosis and Treatment of Birth Injuries of the Head" at the monthly meeting on

Apr 29. Dr George M Shearer presided and Dr Fitzgerald H Clark led in the discussion

Columbia County

THE SEMI-ANNUAL MEETING of the Columbia County Medical Society was held at Copake Falls, May 11. A business session was followed by luncheon and a scientific meeting. "Splenomegaly," was the topic, by Dr John J Clemer, Jr, of Albany. Dr R E Bowerhan, of Copake, gave the vice president's address

At the meeting on May 27, Dr Ellery Allen of the University spoke on "Anemia." The discussion was led by Dr C H Culver. A smorgasbord was served after the meeting

Cortland County

THERE STILL IS TOO MUCH delay on the part of patients in reporting to their physicians symptoms of cancer, Dr Donald Guthrie, chief surgeon of the Robert Packard Hospital at Sayre, Pa, told members of the Cortland County Medical Society and guests assembled on April 16

Speaking before a large audience including local and visiting physicians, Dr Guthrie said that considerable delay existed because of a false belief that the disease is incurable, a feeling of disgrace, and other causes. Because of publicity given to cancer there is a gradual trend on the part of

these cases in visiting a physician earlier than in the past, the speaker pointed out

He advised physicians not to delay the operation to await laboratory diagnosis and explained the procedure in operating on cancer

Genesee County

DR. HERMAN E PEARSE of Rochester addressed the Genesee County Medical Society at a meeting in the Batavia Club on April 29

Kings County

DR. TSUNG-CHI YU, consul general at New York for the Republic of China, was the speaker and guest of honor at the second annual luncheon of the Woman's Auxiliary to the Medical Society of the County of Kings on May 11

Dr Yu spoke on the part played by the women of China in planting and cultivation of the seeds of democracy

THE REGULAR MEETING of the Woman's Auxiliary to the Medical Society of the County of Kings, Mrs Edwin A Griffin, president, was held on April 13 at 1313 Bedford Ave. The guest speaker was Dr Silverman, whose subject was "Social Hygiene."

The annual luncheon was held on May 11 at the Hotel Astor, Manhattan

THE RIDGEBORO MEDICAL SOCIETY held its monthly meeting on April 15 at the Kings County Lighting Company Building. Dr Harry Meyersburg spoke on "Treatment of Nasal Allergy"

THE BROOKLYN THORACIC SOCIETY, having completed the first year of its organization most satisfactorily, has re-elected all of its present officers. They are President, Dr Foster Murray, vice-president, Dr John E. Jennings, treasurer, Dr Harry Meyersburg, secretary, Dr Alexander L. Louria.

The last meeting of the Society was held April 16, at which Dr Edward D Churchill, Visiting Surgeon of the Massachusetts General Hospital of Boston, delivered a discourse on Lobectomy and Pneumonec-tomy with a special reference to Primary Carcinoma of the Lung—Reported by Foster Murray, M.D., President

CONGRESSMAN EUGENE J. KEOGH of the 9th District has received three letters from an unnamed Brooklyn physician, who threatens, unless Congress does something "about the Roosevelt dictatorship," to sell his

house and other property and settle in some foreign land. He says he is forced to that decision by the Roosevelt court program and the epidemic of sit-down strikes. The doctor offers the first chance on his house to the Congressman

Montgomery County

SERUM TREATMENT FOR PNEUMONIA was the subject of two addresses before the Medical Society of the County of Montgomery on April 14 at St. Mary's Hospital in Amsterdam. The speakers were Dr H. W. Lyall, assistant director of the State Division of Laboratories and Research, and Dr Edward S. Rogers, director of the Bureau of Pneumonia Control in the Division of Communicable Diseases

Nassau County

A PAPER ON "Surgical Complications of Influenza" was presented by Dr John Edward Jennings at a scientific session of the Nassau Medical Society in the Bar Association clubhouse, Mineola, on April 27. In introducing Dr Jennings, Dr Henry B. Smith, president of the association, said the speaker "has had surgical experience which can be equalled by few men in the large centers of this country." A dinner to Dr Jennings was given in the club house. Dr Jennings is senior surgeon at Brooklyn Hospital, St. Peter's Hospital, St. John's and the Cancer Institute. He is President of the Brooklyn Chapter of the American College of Surgeons and representative from Long Island of the Boards of Regents of the American College of Surgeons

New York County

DR. KOVACS, CHAIRMAN OF THE Special Committee on Physical Therapy of the Medical Society of the County of New York, reported recently that at the request of the Executive Secretary of the Medical Information Bureau a letter of protest was sent to a certain station in regard to a commercial broadcast or home diathermy. Other complaints along these lines were referred to the sub-committee on radio advertising for further study and investigation. The chairman also reported an interview with an investigator of the Federal Trade Commission, furnishing data in the case of alleged fraudulent advertising to the laity by a short-wave diathermy concern

A REPORT WAS RECENTLY made to the Committee on Economics on the matter of cooperative societies which give medical

service to patients at reduced fees. The Workmen's Circle was discussed. There are about 200,000 people in the metropolitan district who belong to it. It is only supposed to take members of trade unions but many other individuals belong. The main objections to this organization are that it has a fixed fee schedule, there is no free choice of physicians, and the remuneration is below that of the Workmen's Compensation Law. The Workmen's Circle deducts from the fees collected for their administrative expenses, and the doctors are chosen by a lay committee.

The People's Medical League, formerly the Family Health Service League, was also reported upon. Essentially it is a cooperative plan between individuals and families in the small income group. There is a membership fee of a dollar a year per person. It has a Board of Directors, a lay Advisory Board, a Medical Advisory Board, and a Dental Advisory Board. Originally, the medical and dental boards were supposed to have sole discretion in medical and dental matters such as fees, etc., but after a short time this was taken out of their hands and put in the hands of a lay board. The fees are quite similar to those of the Workmen's Circle. The patient calls the office and is given a list of physicians belonging to the League whom he may call upon. He pays the doctor, who does not return any of this money to the organization. The main objections to this organization are similar to those to the Workmen's Circle.

DR GEORGE HENRY FOX, one of the first American physicians to specialize in dermatology, died on May 3 at his home, in New York City. He was ninety years old, a former president of the Medical Society of the County of New York and of the New York State Medical Society, and the only survivor of the founding members of the American Dermatological Association.

THE GEORGE M KOBER MEDAL, one of the most prized recognitions in the medical profession, was awarded on May 5 to Dr William H Park, director of laboratories of the New York City Department of Health.

The gold medal is awarded annually by the Association of American Physicians to the member who has gained international recognition through his contributions to medicine. Membership in the association, which held its fifty-second annual convention in Atlantic City, is limited to 200.

Dr Park was cited for his research work in infectious diseases and immunity to

them, particularly in regard to diphtheria. His laboratory is recognized as one of the finest for the study of these diseases in the United States.

Dr Rufus Cole, director of hospitals of the Rockefeller Institute, New York, was chosen by the council of the association to be the recipient of the medal next year. The award fund was endowed by the late Dr Kober of Washington, international leader in public health work.

Oneida County

STATISTICS JUST ANNOUNCED show a gain in births and a drop in deaths in Oneida County for 1936 as compared with 1935.

ABOUT ONE HUNDRED DOCTORS, dentists and their wives were carried in fancy to the jungles of Africa during a lecture by Wynant D Hubbard at the Yahnundasis Golf Club on April 15.

Sponsored by the Utica Academy of Medicine and the Utica Dental Society, the dinner meeting provided a series of illustrated adventures.

Mr Hubbard, who went to Rhodesia as a mining engineer, remained there about eleven years to capture wild animals. He said his success was due to taking the animals while they were young and before they had acquired the bad habits of their ancestors. He harbored elephants, lions, buffaloes and many other animals.

Onondaga County

THE WOMEN'S AUXILIARY of the Onondaga County Medical Society met on May 4 at the home of Mrs J Winthrop Pennock, Syracuse. Dr O D Chapman spoke on food poisoning. Dr Irving A Oberlander, baritone, sang.

ALL BUSINESS WAS SUSPENDED on April 13 in the village of Pompey while hundreds of the population attended the funeral of Dr Frederick Austin Hunt, "physician, political leader and friend." As one villager summed up this old-time family doctor's services: "Only last week, two days before he died, Doc Hunt was called out to set a rib. There wasn't anything he didn't do for us, even pulling teeth. He went out on emergency cases even after he was county clerk. Why in the days before he was supervisor it was unheard of for a Pompey woman to go to a hospital to have a baby. Doc Hunt brought them all into the world."

DR ELIZABETH M GARDINER, director of the Division of Maternity, Infancy and

Child Hygiene of the New York State Department of Health, addressed the Women's Auxiliary to the Onondaga County Medical Society on April 6 in the nurses' recreation room of Syracuse Memorial Hospital. Auxiliary members of the Cayuga and Madison County Medical Societies were guests of the Onondaga group for the meeting. Mrs H Walden Retan, new president, was in charge. Mrs Retan, formerly vice president of the Auxiliary, succeeded Mrs Francis R. Irving in the presidency when the latter resigned to take over her duties as president-elect of the New York State Auxiliary. She is engaged in organizing nine additional counties prior to the State convention.

Orange County

AFTER AN ADDRESS BY District Attorney Henry Hirschberg of Newburgh, in which he branded the present coroner system in Orange county as archaic, the Orange County Medical Society, May 13, at the Hotel Palatine in Newburgh, voted in favor of abolition of the four coroner posts and the appointment of a qualified medical examiner to take over the duties now performed by the coroners.

The District Attorney asserted that under the present system it seemed to be a fixed plan to refrain from notifying the prosecutor's office of deaths by violence until after the doctors and embalmers had done their best to destroy the evidence. He mentioned three specific cases since he took over the prosecutor's work three years ago in which valuable clues had been destroyed before his office was notified of the crime.

While the physicians favored District Attorney Hirschberg's main point of replacing coroners by a medical examiner, they differed with him on the source of the proposed new official's appointment.

Mr Hirschberg contended that the medical officer should be appointed by the District Attorney. The physicians, as their views were expressed by many of those present, thought that the appointment ought to be under Civil Service.

Physicians urged that a man who would be willing to qualify himself for the office by the study of pathology, bacteriology, criminology and other such subjects, would want a greater permanency in office than the three years term of the District Attorney. And they argued that a better man would be secured under Civil Service than by political appointment.

DR. ROBERT J HEWSON of Monroe was

appointed chairman of a committee for revision of the by-laws of the County Society.

A MEETING OF THE Woman's Auxiliary of the Orange County Medical Society was held at the home of Mrs W H Snyder, Newburgh, on April 20. There was a good attendance and several new members were elected.

Three delegates were elected to represent the Auxiliary at the State Convention at Rochester.

Oswego County

A VIGOROUS CAMPAIGN of education for the control and prevention of cancer was carried out by the Medical Society of the County of Oswego in May, with public meetings in Oswego, Fulton, and Pulaski. The speaker was Dr Charles Swan of Rochester, chairman of the state commission for the prevention of cancer.

Queens County

DR JAMES REULING, president of the Medical Society of the County of Queens, awarded silver loving cups to the eight schools showing the highest percentage of physical defects corrected during the past year in their respective schools, during child health day exhibits at the Medical Society Building on May 3.

Thousands of children attended the exhibit during the week. They were served with ice cream and chocolate drinks.

AN EXPANDED ACTIVITY program is planned for the Rockaway Medical society during the coming year to mark its fifth anniversary. Dr Louis A. Sarrow, new president, announces. Augmented meeting programs will be arranged. Dr Sarrow was named to succeed Dr Ferdinand H. Herrman, at the annual election. Other officers are Dr Milton Morris, vice president, Dr Charles W. Martin, treasurer and Dr Alfred Calvelh, secretary.

Rensselaer County

THE RENSSELAER COUNTY MEDICAL Society has started an agitation for more visible house numbers in Troy, and the Chamber of Commerce is supporting it. The doctors find the present situation unfortunate and dangerous to life. Very often, on emergency calls, they are unable to locate patients except after a long search for the house. As a few minutes sometimes mean life, it is important the doc-

tors feel that everything should be done to make house location easy. The society would like a law passed which would compel people to place four-inch high numbers in conspicuous places on the front of their homes. The numbers should be seen easily from an automobile in the middle of the road. A similar law was passed in Buffalo recently and only three months was required to put up the new numbers.

DR. JOHN J. RAINEY, of Troy addressed the Vermont State Medical Society on April 28 at Rutland, on "Practical Consideration of Nasal Accessory Sinuses."

Richmond County

DR. ALFRED H. THOMAS, sixty-two, a major in the World War, star fullback at Yale, and a prominent general practitioner on Staten Island for 37 years, died on April 15 at Staten Island Hospital, where he had been a staff surgeon.

Saratoga County

MORE THAN 800 physicians of Eastern New York and adjoining sections of Vermont and Massachusetts have been invited to the annual spring meeting of the Saratoga County Medical Society, June 3.

Results of treatment with the use of underwater methods will be the subject of the morning session. Dr. Leroy Hubbard, first medical director of the Georgia Warm Springs Spa and now connected with the large work of the Georgia Warm Springs Foundation, will discuss "Poliomyelitis—its Recognition and Treatment." Dr. John Currence of the Department of Physical Therapy of the Post-Graduate Hospital and the Lincoln Hospital, will present a paper on "Hydrotherapeutic Treatment of Arthritis and Related Conditions."

Visiting physicians will be given opportunities to inspect the buildings of the Saratoga Spa, practically all of which will be in operation at that time.

"Nephritis" is the general topic of the afternoon symposium. Dr. Paul L. Klemperer, pathologist of the Mount Sinai Hospital, New York, will discuss "Vascular Diseases of the Kidney—Pathological Aspects." Dr. Herman Mosenthal will discuss "Prevention and Treatment of Uremia," with attention to the general treatment of nephritis.

Tompkins County

ITHACA AND TOMPKINS County joined in a two-day conference on syphilis control

on May 5 and 6, with fifty-two community organizations cooperating.

Ulster County

A TWO-DAY INSTITUTE on the control of syphilis was held in Kingston on May 27 and 28, with over fifty city and county organizations participating.

Wayne County

MEMBERS OF THE Wayne County Medical Society were guests of Dr. C. L. Vaux at the State School for their regular April meeting, April 6. Following dinner, the program included presentation of cases by Dr. H. G. Hubbell, clinical director of the School. Dr. John Hoeffler reported on the first 1,000 admissions to the new boy's school.

Westchester County

THE YONKERS ACADEMY OF Medicine on April 21 "tossed the vexing immunization problem back into the lap of the Department of Health," as a Yonkers paper puts it.

By an overwhelming vote, the physicians, meeting at the Hudson River Country Club, favored establishment of a free clinic at City Hall to take care of anti-diphtheria immunization service.

The city discontinued its free clinic in 1933, giving the work over to private physicians, who were paid on a fee basis for caring for indigent cases.

The academy attributed failure of the system in effect since that time to neglect of parents in bringing their children to the doctors for treatment. The consensus was that free clinics would eliminate that obstacle to one hundred per cent immunization.

The action of the academy follows a storm of protest from parent organizations of the city, deploring the apparent failure of the current system, and a promise by Dr. John A. Farella, Acting Health Commissioner, that he would reestablish free city clinics if the physicians want them.

The first clinic was held on April 24 at the City Hall, to be repeated every Saturday.

The restoration of the clinics writes finis to a three and one-half year experiment in "private administration of public health" inaugurated by the late Dr. Clarence W. Buckmaster, Health Commissioner, at the behest of the Academy of Medicine. Other recommendations of an Academy committee—that other phases of public health work be transferred to the private physicians—were rejected shortly after that.

Hospital News

How Albany Hospital Does It

TO CUT ITS LOSS by bad debts from four or six per cent down to around one per cent of earnings is a surgical operation that many a hospital would delight to perform. Albany Hospital did it, and how it was done is told by E. W. Jones and R. R. Potter in *The Modern Hospital* for February. One per cent of loss, as they remark, "compares favorably with merchandising and industrial experience."

In the first place, every patient, on entering the Albany hospital, is rated by the credit manager, on the basis of all available information, as "O K. with no reservation," "O K. Weekly," "O K. Weekly with one special nurse," "O K. Weekly except special nurses," "Weekly in advance," or "Strictly advance."

All patients are billed weekly, some in advance, and others on an accrued basis, depending on the classification of the account. These billings are made by the cashier and are cleared through the credit manager before they are mailed.

"The credit manager," we are told further, "follows these accounts closely, the procedure being that three days are allowed for the bill to reach its destination, and a check to be written and sent to us. If a remittance is not received at the end of the third day after the bill is mailed, the account is carefully scrutinized, and if it appears advisable, a letter is sent requesting that the bill be honored. It is again checked at the end of three more days and if no reply to the bill or follow-up letter has been received, we again determine what the next move should be.

"If a discharged patient for some reason is not in a position to pay his account in full, his financial problems are discussed with him to determine to our satisfaction, as well as his, what method should be adopted in liquidating the account at some future time, and we accept a note for the unpaid balance, which note is payable according to terms agreed upon. We attempt never to accept a note on which payment in full or in part is not due within 60 days.

It is a common experience that the longer an account runs, the harder it is to collect.

"The majority of those from whom we must accept notes are working at low salaries and can afford to pay only a small portion of their periodic income on such an account. For this reason, we usually attempt to have the payer agree to pay a certain amount of his periodic income on the account until it is entirely liquidated. In this way the account is always a current one from the date of the last payment.

"Following is a detail of the general procedure used in following our accounts receivable.

"Accounts Owed by Individuals

"If payment is not received at the time, a bill is either given to the patient or forwarded to the guarantor immediately after the patient is discharged, or special services such as X-ray, special laboratory, electrocardiograph, are rendered. The account is flagged for one week from that date, unless a note is received.

"When notes are accepted, the account is flagged for three days before the due date and a notice reminding the individual of his obligation is sent to reach him one day before the note is due.

"If payment is not made when due on a note or within one week from rendition of a bill when no note has been obtained, a second statement is mailed and again the account is flagged for one week from that date. A follow-up letter accompanies the statement.

"If after another week we still have received no payment and have not heard any word from the patient, we forward a letter reminding him of the indebtedness and requesting payment. The account is again set up in file for one week from that date.

"With no action at the end of the third week, we mail another letter requesting that the patient either remit, or state on reverse side the reason why payment cannot or should not be made. Once more the account is flagged for one week hence.

"If we receive no word by the end of the fourth week, we write insisting that the account be given immediate attention, and the account is again set up in file for the following week.

"By the end of the fifth week, it is obvious that the debtor does not intend to reply to our stereotyped letters and we therefore either forward him a specially dictated letter or refer the account to a personal contact man if the payer resides locally, or to the collecting agency which handles this work for us on out of town accounts.

"We keep a close check on local accounts

through the contact man and if he does not obtain satisfactory results within a reasonable time, we refer them to the collection agency.

"All accounts which have been referred to the collection agency are reviewed twice a year. All accounts which for one reason or another appear to be uncollectable and those which we may possibly have been able to determine to be so before they are referred to the agency, are tabulated on a report which is referred to our governing body with recommendations that they be written off twice yearly."

Importance of a Good Medical Library

THE SOUL OF AN INSTITUTION resides in its library, said Harvey Cushing some ten years ago at the opening of the new Cleveland Medical Library building, and he went so far as to aver that one gauge of the quality of a hospital is the condition of its library. That is not to say, of course, that the hospital's books are more important than its other equipment, but merely that a good hospital will have a good library and a poor hospital will have a poor one.

The importance of the medical library is evident when the Council on Medical Education and Hospitals of the A.M.A. specifies in the "Essentials in a Hospital Approved for Training Interns" that there must be a working medical library with "a useful selection of late editions of standard text and reference books and current files of not less than ten of the better medical journals." It is not enough, either, to have the privilege of using a medical library, however good, located in some other institution. It "should be inside the hospital building, and be located where it is readily accessible to the interns and staff members."

Serious limitations hamper a medical staff which tries to work with little or no reference to books and journals, truly remarked Dr. Vincent at the fiftieth anniversary of the Boston Medical Library in 1926. They are liable to mistakes, waste, duplication of effort, they "become victims of empiricism and routine, imagination and initiative lack stimulus, enthusiasm and energy decline, minds grow sterile that under the quickening influence of the recorded experience of others might have been fruitful."

It is so easy, too, to organize a serviceable library if the medical and administrative staffs really go to it with energy and determination, for quality is more important than quantity, and a workable selection of choice medical periodicals, standard texts, and reference books is within reach of almost every hospital. The first step is to appoint a library committee, and right here a wrong choice may cripple the entire enterprise. "Many library committees are such in name only," says the *Journal of the A.M.A.*, and "care should be exercised in order to assure the inclusion of such doctors as would take an active interest."

As little as \$300 a year will establish and maintain a hospital medical library, in the opinion of the A.M.A. Council on Medical Education and Hospitals. When we consider how many times \$300 are spent on other things (necessary, of course) around a hospital, it would seem that the money could also be found for this purpose. If not, the staff members can perhaps raise it among themselves, or friends or auxiliaries may contribute it if they realize the need.

When the library is assured, the next question is, where to put it. It will be only natural for the administrative authorities to think first of some disused lumber room on the top floor, for our busy hospitals are now using every inch of space, and wishing for more. This is where the alert library committee gets busy and insists on a proper location. "The hospital medical library," declares the Council, "should occupy a prominent location, preferably in the hospital building. The actual location of the room will affect

directly the amount of usage. If it is placed in an obscure corner of a floor that is used very little as compared with other floors, it will naturally not be visited often. The location should be chosen with a view to attractiveness, convenience and comfort to those who will use the library. It is often preferable to have it on the administrative floor or in close proximity to the doctors' room. The room should be sufficiently large to house the books along with the necessary furnishings, and to permit its comfortable use for reading, discussion and conversation. The very atmosphere of the room will have much to do with the extent to which the library will be used."

Some helpful advice is also given by the Council on the choice of books. In the *Journal A.M.A.* of March 27 it gives a list of suggested works and periodicals, and observes

In establishing the library, it is well to purchase only one or two comprehensive textbooks on each subject. Only recent books should be chosen, with the exception of such standard

works as are recognized as classics in their respective lines, and which do not grow obsolete with age. The literature on therapy and diagnosis, for example, is changing so rapidly as to warrant the use of the most recent books. In the field of the more fully developed sciences, such as anatomy and histology, literature is more stabilized and longer lived. More recent editions of the standard textbooks should be added from time to time thus keeping the library up to date with regard to new methods of diagnosis and treatment that have been digested and tested. After a good foundation has been formed, the balance of the apportioned funds may be expended in purchasing varied references that are known to be of particular value. The library should not be allowed to become a depository for antiques, and out of date books should be removed or discarded.

The usefulness and efficiency of the hospital medical library depend not only on a good selection of medical books but also on a well chosen group of periodicals. Limited library funds are often more usefully expended for periodicals than for texts and references. When ample funds are provided there is no great difficulty experienced in the matter of choice.

Human Rights and Hospital "Sit Downs"

THE CONVICTION IN SPECIAL SESSIONS of seventeen persons in connection with a sit-down strike in the Jewish Hospital is significant and should be salutary, remarks the *Brooklyn Eagle*. It is absolutely necessary, if workers are to continue to improve their lot through organization, for certain distinctions to be made between various abstract rights and definite acts. If no distinctions are to be made between sit-down strikes in hospitals and ordinary labor disputes, then some special arrangement must be made, we are told, to assure protection to helpless people who are the potential sufferers from the lawlessness of such sit-down strikes.

The defense in the Jewish Hospital strike was that no real harm came to patients. That was not the point involved. Serious harm might have resulted from the acts of the defendants. It is possible to drive down the wrong side of the street without hurting any one but it is a violation of traffic regulations, and the fact that no one suffers would not excuse the driver.

Hospital workers deserve something more than ordinary consideration from hospital

managements and the public. Their duties are arduous and their compensation is declared by the *Eagle* to be shamefully inadequate. And they have a right to organize and to strike, if they are so inclined, to impress their employers with their demands. But a sit-down strike in a hospital is another matter. Such action cannot be undertaken without jeopardizing the welfare, if not the lives, of patients.

One of the most confusing aspects of the present labor situation is that it is so difficult to make distinctions. We are far behind some other countries in labor legislation. One reason for this is that we have a dual form of government. Another is that we were so long a predominantly agricultural country and clung so tenaciously to the old ideas of rugged individualism that no serious efforts were made to deal with industrial problems.

Still another reason is that politicians have lacked the courage and the capacity to do anything more than try to please organized groups. Meantime labor has been ruthlessly exploited and has had to fight every step of the way toward betterment.

This has produced a not unjustified conviction on the part of many workers that the only way to get anything is to fight for it.

The current strike contagion represents long years during which workers have suffered from genuine abuses. In the last few years they have made startling gains in many fields, and it is only natural that they should want to go on. But it is necessary to make distinctions. There are certain essential services, such as hospitals,

which cannot be suspended without danger to others.

The Jewish Hospital strikers were convicted under an old law going back to 1881, but the principle invoked is as old as law itself. The whole purpose of law is to protect society. Much has been said about sit-down strikes as affecting property rights as distinct from human rights. The hospital sit-down strike violated both property and human rights.

Improvements

THE CORNERSTONE OF THE NEW \$125,000 hospital and clinic building of the Bronx Eye and Ear Infirmary was laid on April 24. It is practically completed and will be opened soon.

THE NEW \$1,250,000, eight-story Jewish Memorial Hospital building, at Broadway and 196th St., New York City, will be dedicated during the week of June 13, it was announced at the annual meeting of the institution in the Hotel Astor.

THE HOSPITAL FOR JOINT DISEASES in New York City, has successfully completed its campaign for \$650,000 to build a new outpatient department addition.

THE JEWISH SANITARIUM and Hospital for Chronic Diseases, in Brooklyn, plans to build a \$500,000 wing for the treatment of infantile paralysis sufferers.

NASSAU HOSPITAL at Mineola, is looking to the replacement of the present buildings with "a new and modern hospital structure," says President Hoppin in his annual report.

THE MEMORIAL HOSPITAL of Greene County, at Catskill, has opened a new addition, increasing its capacity from twenty-four beds to fifty.

AN ADDITION TO Buffalo General Hospital, costing between \$125,000 and \$150,000, will be started at once, it is announced by Dr. Fraser D. Mooney, superintendent. Three stories high, the new build-

ing will have twenty patient rooms, a surgical department, and staff rooms. The surgical department, taking up the entire second floor, will be one of the most modern in the country.

THE BUFFALO EMERGENCY HOSPITAL has started the construction of a five-story addition, to cost \$158,000. The new wing will house an emergency operating room, first aid room, x-ray and physical therapy departments, pathological laboratory, a pharmacy, and a new chapel. There also will be a new central diet department and increased facilities for internes and the administration department.

THE TOWN BOARD HAS authorized the Seneca Falls Hospital Board of Managers to make preliminary plans for an addition to the present institution or for a new building. Several times state inspectors have criticized the hospital for overcrowded conditions and for lack of a department that could be given over entirely to maternity cases.

GROUND HAS BEEN BROKEN for a new hospital to be built in Olean by the Sisters of the Third Order of St. Francis. It is hoped to complete the structure by fall. It will be known as St. Francis Hospital, and will care for one hundred patients.

PEEKSKILL HOSPITAL WILL repair and re-furnish the nurses' home.

THE OPENING OF ONEIDA's new \$220,000 municipal hospital is slated for July 1.

Newsy Notes

FOR THE FIRST TIME in a generation, the Lenox Hill Hospital, in New York City, reports a balanced budget. This happy condition, says its annual report, is due to legacies left by loyal friends. The "three-cents-a-day" plan is also proving helpful.

A LARGE PROPORTION of its admissions and virtually all its emergency cases last year were automobile accident victims, declares the annual report of the Hebrew Hospital at Monticello.

VETERANS AND THEIR FAMILIES are again to be admitted to the Oneida County Hospital. Two years ago the managers barred them on the ground that they could find accommodations in institutions provided by the Federal Government. With the opening of the new annex, the hospital now has more room, and the previous action has been rescinded.

THE NINETEEN PHYSICIANS on the staffs of the Rome Hospital and the Murphy Memorial Hospital have offered to serve all hospitalized relief cases for \$3,800 a year or \$200 a year for each. Formerly this service was given without charge. The Home Relief Bureau has been notified of the offer and it is expected the Common Council will be asked for an additional appropriation to meet the added expense. The figure is a compromise as the physicians previously had stated they would serve relief cases only at regular rates. The bureau committee asked a schedule of rates and the physicians then made the \$3,800 offer.

DR. JAMES P. CROCE has been appointed Professor of Internal Medicine at the New York Polyclinic Medical School and Hos-

pital, not Professor of Urology, as stated by error in these pages on April 1.

THE NEW WYOMING COUNTY HOSPITAL at Warsaw is well under way. The foundations are completed and work on the superstructure is starting.

ARCHITECTS ARE MAKING PLANS for a new fireproof structure to replace the present frame building of the Eastern Long Island Hospital at Greenport.

A NEW GARAGE AND male dormitory will be constructed at Fordham Hospital.

BINGHAMTON HAS APPLIED for a \$850,000 PWA grant for the construction of an addition to the City Hospital.

ST JOHN'S RIVERSIDE HOSPITAL in Yonkers contemplates the erection of a new building.

THE NEW UNIT OF THE Boulevard Hospital, Astoria, housing an auditorium, laboratory, and other hospital facilities was dedicated on March 22.

SECURITIES WORTH \$315,000 have been donated by C. B. Winslow, of White Plains, to the \$1,200,000 fund being raised for the White Plains Hospital project.

PLANS HAVE BEEN FILED in White Plains, for additions to the main building of St. Agnes Hospital to add facilities that will include thirty-nine new private and semi-private rooms with fifty-one beds for patients. The estimated cost is \$100,000.

At the Helm

The following hospital officials have been chosen:

DR. CHARLES D. PARFITT, to be medical director of Loomis Sanatorium, at Loomis, Sullivan County.

EDWARD C. ROWE, reelected president of Loomis Sanatorium.

DR. STANLEY P. JONES, to be Chief of

Staff of the Eastern Long Island Hospital.

MRS. CARLTON SWEET, to be Superintendent of the Oneida Public Hospital.

DR. ARTHUR F. KRAETZER, to be Director of the Department of Medicine of the Knickerbocker Hospital.

DR. STEPHEN H. ACKERMAN, to be medical superintendent of Fordham Hospital.

Events

DR CLAUDE W MUNGER, newly appointed head of St Luke's Hospital, was guest of honor at a dinner May 11 at the Westchester Country Club, Rye. The advisory board of the Westchester County Department of Public Welfare arranged the dinner in recognition of Dr Munger's sixteen years service as director of Grasslands Hospital at Valhalla.

A GALA PRIMAVERA ENTERTAINMENT was given on May 1 at the Plaza Hotel in New York City in behalf of Columbus Hospital, under the joint auspices of the Ladies and Junior Auxiliaries of the hospital. In addition to general dancing throughout the evening there was a song program by Miss Josephine Antoine and Robert Weede of the Metropolitan Opera and dancing numbers by professionals.

THE ANNUAL DINNER DANCE of the Glens Falls Hospital Guild was held on May 1 at the Queensburg. It was "the high point in the social life of the season," say the Glens Falls papers.

THE ANNUAL FAIR OF THE Norwegian Hospital of Brooklyn was held at the Kings County Lighting Company Building on April 17-24, sponsored by the Ladies Auxiliary.

THE THIRD ANNUAL LUNCHEON of the Women's Auxiliary of the Schenectady City Hospital was held at the Hotel Van Curler on April 13, and brought out a large number of members and friends of the institution who were greeted by the retiring president, Mrs W G Acosta, and the newly elected president, Mrs John S Faber, who presided.

MORE THAN 200 PEOPLE paid tribute to Dr Albert R. Fritz and his brother, Dr Dudley Fritz, who founded the Madison Park Hospital, in Brooklyn, in 1930, at a dinner given by officers and directors of the hospital and physicians and laymen of the borough, at the Waldorf-Astoria Hotel, Manhattan, in April.

SENATOR JULIUS S BERG of New York City was the guest speaker at the twelfth anniversary banquet of the Monticello Hospital at the Flagler Hotel on April 25.

THE ADMINISTRATIVE STAFF of the Green point Hospital of Brooklyn held a reception and card party in the auditorium of the hospital on April 9.

POSTMASTER GENERAL James A. Farley was one of the guests at the Primavera Fiesta at the Hendrick Hudson Hotel in Troy on April 21 for the benefit of the Troy Hospital.

THE THIRD ANNUAL DINNER DANCE of the doctors of St Mary's Hospital in Brooklyn was given at the Hotel St. George on April 8. More than 900 guests attended.

PROCEEDS OF THE DANCE for the benefit of the Medina Memorial Hospital on April 2 approximated \$1,000. Over 800 were present.

THE 12TH ANNUAL BALL of the Nurses' Alumnae Association of the Greenwich Hospital was held at the Masonic Temple in Port Chester on April 3. The proceeds went to the emergency fund.

DR. PHILIP OGINZ, retiring president of the medical board of Beth-El Hospital, was the guest of honor of more than 200 Brooklyn physicians at a dinner given him by the medical board and staff of the hospital on Mar 17 in the Brooklyn Jewish Center.

THE LENOX HILL HOSPITAL, New York City, in 1936, for the first time in a generation, reported a balanced budget and was not obliged to draw on capital to meet a net deficit, it is stated in the annual report. The improvement in finances is ascribed to increased use of hospital facilities, especially in the private and semi-private departments, larger contributions from the United Hospital Fund and supporters, and the adoption of the Associated Hospital Service three cents a day plan.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Liability of Infant for Medical Services

A question of interest to the members of the medical profession is that presented where a physician attempts to collect a fee from a patient he has treated who is under legal age. A case recently decided in one of the Southern States reaches what seems to be a fair result where the defense of infancy was asserted in answer to an action by a physician who had treated a small boy.

The action originated in a court of limited jurisdiction and was carried through an intermediate court and finally was decided upon appeal in the highest court in the State. The case was one in which there was no dispute as to the facts which will be set forth in summary.

The plaintiff, B, was a duly licensed physician who brought suit for a fee of slightly less than \$200 against T.G. an infant. Named as a codefendant in the action was the W. Bank & Trust Company, the duly appointed guardian of T.G. The child resided with and was generally supported by R.G. his father. Some years before, the minor had been seriously injured when struck by an automobile owned by one C. He was taken to a hospital where Dr. B. treated him for a long period of time. The professional services rendered were of at least the fair and reasonable value of the amount demanded. The father of the boy had frequently visited him at the hospital and made no objection to the treatment the patient was receiving, but there was no express contract of hire made between Dr. B. and the father or anyone else as to who would pay for the medical care rendered. Later, payment was demanded from the father and he refused to pay.

An action was brought on behalf of the infant against C, the automobile owner, which resulted in a judgment of \$3,000 being paid, and deposited with the bank as guardian. An action against C by the father, resulted in a judgment of \$900 which was based upon a complaint covering hospital and medical expenses, and loss of services.

The question presented to the Appellate Court was well summarized in the opinion as follows:

Is an infant living with his father liable for medical services where such services were uncontradicted but were necessary in an emergency and the infant recovers damages for the injuries which made the services necessary, although the father also recovers for his own expenses (including hospital and medical) and damages?

The Court in affirming the judgment in favor of the physician answered its own question in the affirmative, and said in the course of the opinion:

It goes without saying that the father was liable to plaintiff, the physician, for the services rendered to his infant son.

We think, under the facts and circumstances of this case that the infant is also liable. The defendants say in their brief "In good conscience and equity it ought to have been collected out of the father when he recovered his judgment in a substantial amount for the very obligation." We think this should have been done and the father liable to the infant, but from the record, it may be he is insolvent. T.G. when injured, for which recovery was had, was about seven or eight years of age. He was "seriously injured suffering a broken leg and other injuries." He was taken to a hospital and there treated by the plaintiff, Dr. B., who rendered to him certain medical and surgical services over a long period of time. It is admitted that the charges for the services rendered by plaintiff were fair and reasonable.

The Court in the opinion quoted from an earlier authority as follows:

A case in which considerations of humanity control and enable one who has rendered services without request to recover therefor, is found where medical or surgical attention is rendered to one who is injured or taken ill so that he is unconscious and unable either to request or forbid the rendition of such services. In cases of this sort, the courts are confronted with the alternative of requiring the injured person to pay reasonable compensation for services rendered to him, or of saying that all who render services do so as a matter of charity or in reliance upon the generosity of the person for whom such services are rendered. While there is little authority upon this question, from the nature of the case it is held that the interest of the person who is injured requires the law to impose a liability upon him for reasonable compensation for such medical and surgical services.

* *Bitting v. Goss*, 166 S. E. 302

The decision referred to is considerably more liberal than two earlier decisions handed down by the Appellate Term in New York State in similar situations* The general New York rule was stated as follows in the *Potter* case

In order to fasten liability upon the defendant (infant) personally, the plaintiff (physician) was required to establish affirmatively that the person charged with the duty of maintaining and protecting the infant, at the time the services were rendered, was either unwilling or unable to discharge his obligation

In the *Stetson* case the Court said

In order to fasten any liability upon the defendant for said alleged services rendered to him in his infancy it was absolutely necessary for the plaintiff to prove, in the absence of any ratification by the infant when he became of age, not only that the services so rendered were necessities furnished to the infant, but that the father was not financially able to discharge the obligation for such services, or failed to discharge his duty in furnishing medical services, or that he was unwilling to furnish such services, or would not pay for them

Alleged Malpractice in Operation Upon Knee

A man who had been receiving medical care under the Workmen's Compensation Law for about six months with respect to an injured knee was referred to a physician specializing in orthopedic surgery Previous attempts at treatment had been unsuccessful and he had not been able to return to work up to that time The doctor examined him and concluded that the patient's injury required operation He had the patient hospitalized and under general anaesthesia made an incision over the left knee for the purpose of removing a torn meniscus The surgeon also removed certain hypertrophied fat pads In the course of the operation, he found the synovial membrane and the anterior crucial ligament inflamed A plaster cast was applied which was allowed to remain on the leg for about two weeks At the end of that time, the patient left the hospital

The wound healed in a reasonable time but the patient seemed unwilling to make any attempts to move his leg The patient returned to the doctor's office for nearly a year following the operation periodically for the purpose of receiving baking and massage At the end of that time, the patient had no swelling, tenderness, or limitation of motion, but when he attempted to walk,

he still had a marked limp From that time on, various doctors attended him and it was found that the patient developed very unusual nervous symptoms although it was not possible definitely to attribute these symptoms to malingering

A malpractice action was instituted against the orthopedic surgeon charging him with negligence in his care of the patient and charging that as a result the plaintiff sustained permanent stiffness, shortening and loss of the use of his left leg which rendered him a permanent cripple Subsequent to the conclusion of the treatment of the plaintiff by the defendant, he received a substantial award of Workmen's Compensation covering his injuries The said fact was availed of on behalf of the doctor in defense of his action both in mitigation of damages and upon the ground that the plaintiff had elected to pursue his remedy under Workmen's Compensation rather than to proceed against the doctor in the malpractice action

The case came on for trial before a judge and jury and at the end of a three day trial, after the testimony on both sides had been taken, the court directed a verdict in favor of the defendant thereby exonerating him of the charges of malpractice which had been made against him

Glass in Hand

A young woman who was employed as janitress of a tenement house, consulted a physician specializing in surgery with respect to an injury to her hand She gave him a history of falling and cutting her hand on the broken glass of a window a week before The doctor found a partly healed laceration about one inch and a half long upon the back of her left hand between the first and second metacarpal bones He carefully dressed the wound on that day and renewed the dressings on four later occasions during the next week when she called at his office He heard nothing from the woman for somewhat over a year when she returned to him complaining of pain in the hand He then had an x-ray picture taken which showed a shadow near the site of the old wound The doctor opened the old incision and found a small sliver of glass about three-fourths of an inch long which he removed He continued to care for the patient until the wound again healed

Within two years after the last series of treatments, but more than two years after the first, the patient instituted a malpractice action against the doctor charging him with negligence in having failed to re-

* *Potter v. Thomas* 164 N. Y. S. 923, *Stetson v. Thomas* 164 N. Y. S. 713

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move the glass when he first treated her. In addition to the defense that the doctor had not been guilty of malpractice in treating the case, a special defense was interposed in the case that the cause of action was barred by the two year Statute of Limitations.

Before the case was tried, a physical examination showed that the plaintiff's use of the injured hand was considerably restricted. Said examination, however, indicated that the disability was probably due to a hysterical neurosis.

The case came on for trial before a judge and jury, and at the conclusion of the testimony of the plaintiff and her witnesses, the complaint was dismissed thereby terminating the action in favor of the doctor defendant.

Death of Child Owing to Ruptured Appendix

A general practitioner was called to attend a three year old child. Upon examination he found a respiratory infection with rales in the lungs, particularly pronounced on the right side. He found that the child had a high temperature and pulse. He prescribed for the condition and kept the child under careful observation for two days when he observed rigidity and tenderness of the abdomen. He immediately called in a child specialist to confirm his tentative diagnosis of appendicitis. The pediatrician decided that the child should be immediately taken to a hospital for observation. At the hospital it was determined that the case was inoperable and the next day the child died. An autopsy revealed that the child had died from pneumonia and general peritonitis caused by a ruptured gangrenous appendix. A malpractice action was instituted against the general practitioner charging

him with having negligently caused the death of the child by failing promptly to diagnose his true condition. The case came on for trial before the Court and a jury and the plaintiff failed to establish that the doctor, in his care of the child, in any way departed from proper and approved medical practice. The Court, therefore, dismissed the complaint at the conclusion of the testimony on behalf of the plaintiff.

Diathermic Burn

A physician engaged in general surgery, was asked by an insurance company to make an examination of a patient who was receiving treatment under the Workmen's Compensation Law, and to advise with respect to what further treatments should be rendered him. The doctor, upon examination, learned that the man had injured his finger some time before and that there was a well-healed scar on the surface of the distal end of the first finger of the right hand. The doctor found stiffness at the joint and recommended that he should receive baking and massage. The doctor rendered no treatment but directed him to obtain the needed baking and massage from a physiotherapist in the employ of the insurance company. It appeared that on the same day a baking treatment was rendered by the physiotherapist and that the man received a burn.

An action was brought against the doctor, the physiotherapist, and the insurance company charging each of them with responsibility for the burn. However, when the case was about to be reached for trial, counsel for the defendant physician succeeded in persuading the plaintiff's attorney that there was no legitimate basis for a cause of action against the doctor and this action was discontinued as to him.

DREAMS

Preventive medicine dreams of a time when there shall be enough for all, and every man shall bear his share of labor in accordance with his ability, and every man shall possess sufficient for the needs of his body and the demands of health. These things he shall have as a matter of justice and not of charity.

Preventive medicine dreams of a time when there shall be no unnecessary suffering and no premature deaths, when the welfare of the people shall be our highest concern, when humanity and mercy shall

replace greed and selfishness, and it dreams that all these things will be accomplished through the wisdom of man.

Preventive medicine dreams of these things, not with the hope that we, individually, may participate in them, but with the joy that we may aid in their coming to those who shall live after us.

When young men have vision, the dreams of old men come true—Milton J. Rosenau, M.D., in the *Bulletin*, Kentucky State Department of Health.

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Alleged Malpractice in Operation Upon Knee

A man who had been receiving medical care under the Workmen's Compensation Law for about six months with respect to an injured knee was referred to a physician specializing in orthopedic surgery. Previous attempts at treatment had been unsuccessful and he had not been able to return to work up to that time. The doctor examined him and concluded that the patient's injury required operation. He had the patient hospitalized and under general anaesthesia made an incision over the left knee for the purpose of removing a torn meniscus. The surgeon also removed certain hypertrophied fat pads. In the course of the operation, he found the synovial membrane and the anterior crucial ligament inflamed. A plaster cast was applied which was allowed to remain on the leg for about two weeks. At the end of that time, the patient left the hospital.

The wound healed in a reasonable time but the patient seemed unwilling to make any attempts to move his leg. The patient returned to the doctor's office for nearly a year following the operation periodically for the purpose of receiving baking and massage. At the end of that time, the patient had no swelling, tenderness, or limitation of motion, but when he attempted to walk,

he still had a marked limp. From that time on, various doctors attended him and it was found that the patient developed very unusual nervous symptoms although it was not possible definitely to attribute these symptoms to malingering.

A malpractice action was instituted against the orthopedic surgeon charging him with negligence in his care of the patient and charging that as a result the plaintiff sustained permanent stiffness, shortening and loss of the use of his left leg which rendered him a permanent cripple. Subsequent to the conclusion of the treatment of the plaintiff by the defendant, he received a substantial award of Workmen's Compensation covering his injuries. The said fact was availed of on behalf of the doctor in defense of his action both in mitigation of damages and upon the ground that the plaintiff had elected to pursue his remedy under Workmen's Compensation rather than to proceed against the doctor in the malpractice action.

The case came on for trial before a judge and jury and at the end of a three day trial, after the testimony on both sides had been taken, the court directed a verdict in favor of the defendant thereby exonerating him of the charges of malpractice which had been made against him.

Glass in Hand

A young woman who was employed as janitress of a tenement house, consulted a physician specializing in surgery with respect to an injury to her hand. She gave him a history of falling and cutting her hand on the broken glass of a window a week before. The doctor found a partly healed laceration about one inch and a half long upon the back of her left hand between the first and second metacarpal bones. He carefully dressed the wound on that day and renewed the dressings on four later occasions during the next week when she called at his office. He heard nothing from the woman for somewhat over a year when she returned to him complaining of pain in the hand. He then had an x-ray picture taken which showed a shadow near the site of the old wound. The doctor opened the old incision and found a small sliver of glass about three-fourths of an inch long which he removed. He continued to care for the patient until the wound again healed.

Within two years after the last series of treatments, but more than two years after the first, the patient instituted a malpractice action against the doctor charging him with negligence in having failed to re-

* *Potter v. Thomas* 164 N. Y. S. 923, *Stetson v. Russell*, 130 Misc. 713

for these cycles. He was hard to handle. Once he refused to go to the dental clinic and tore his shirt." Reluctance to go to the dentist may perhaps seem perfectly normal, though the streets around dental offices are not commonly littered with torn shirts.

An Exciting Discovery

Tommy improved under treatment, but "the one thing that did not change was the peculiar fluctuation in his behavior from day to day. In school about two days out of every week he was so confused that trying to teach him anything at these times was profitless." What was there different in Tommy on those two difficult days? That was the job given to the new machine, and it responded with an amazing report. In Dr. Solomon's words:

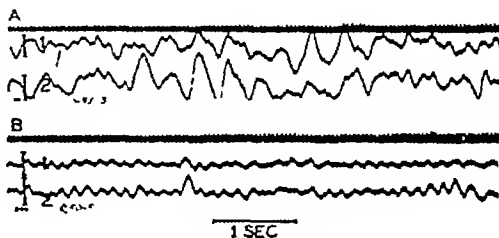
Now, the strange and exciting discovery that this instrument permitted us to make was this. When we took brain wave records on Tommy, who was not suspected of having epilepsy, we found the same "seizure waves" that epileptics have. What is more, on the days when Tommy did poorly in school and seemed especially bad-tempered, his brain record was full of "seizure waves," while on good days when he was well behaved, his brain record was perfectly normal! Here, then, was the explanation for Tommy's peculiar behavior. We had come upon a new and unsuspected cause for misbehavior. It had previously been recognized that some epileptic individuals behave badly after their attacks. In fact, many crimes, even murders, have been committed under these circumstances. But that a child who was not regarded as an epileptic could have the same brain disturbances and the same type of behavior was something not considered before.

The implications here are extraordinary—that we have "come upon a new and unsuspected cause for misbehavior," a disturbed brain-state present in non-epileptics as well as epileptics revealed by "seizure waves."

Can We Calm the Waves?

Can this state be remedied? Can we pour oil on the troubled waters and still the waves that beat on poor, battered brains like little Tommy's and threaten to drive them into criminality? That question is engaging the attention of scientists who are using the electro-encephalograph to study

epilepsy. One of these is Dr. William G. Lennox, of the Department of Neurology of the Harvard Medical School, who told of some of his findings at the annual meeting of the American Psychiatric Association in Pittsburg in May. A milestone in the study of this disease, he said, is the demonstration that an epileptic seizure is a disturbance in the normal rhythm of the electrical activity of the brain, for this "permits concentration of attention on those elements which have to do with the brain's electrical discharge."



LEGEND FOR FIGURE

Tommy's brain waves. A. On a "bad" day (see text). B. On a good day. Lead 1 in both records was taken from an indifferent ear electrode to the vertex of the head, lead 2 simultaneously from the same indifferent to an occipital electrode. For technique, see Jasper, H. H. and Andrews, H. L., *Jour. Gen. Psychol.*, 1936, 14: 98-126.

The time line at the top of each record represents 1/20 seconds. The calibration lines under the letters 'A' and 'B' represent the excursion produced by a signal of 200 microvolts.

Record B shows normal "alpha" waves. Record A shows large 3 a second "seizure" waves.

Several factors have been found to play a part in it, he reports, according to an account in the *New York Times*. These include the strength of electrolytes (body fluids carrying electrical current), the relative amounts of oxygen and of sugar, the acid-alkaline balance of the brain cells and the permeability of the cell membranes.

"The fact that various alterations in body chemistry, such, for example as simply increasing the carbon dioxide concentration of the respired air, suppresses the abnormal electrical rhythm of epilepsy, indicates the possibility of influencing cell chemistry by chemical means," he says.

Evidence is accumulating, he adds, that epilepsy is due to a specific abnormality in neurones (nerve cells) of epileptics, but the chemical procedures which suppress the abnormal electrical rhythm have not yet revealed this specific abnormality. For ex-

Across the Desk

Why We Misbehave like Inhuman Beings

WHEN THE RADIO SQUEALS AND squawks, we know that some wrong electrical impulse has got into it and twisted its sweet harmonies into jarring discords. A little tinkering by the repair man sets it right again. Simple enough. But now a new instrument, called the electro-encephalograph, suggests that our brains are very like radio receiving sets, an idea which conjures up alluring possibilities, and some others, which are not so much so. The radio at its best is a thing of infinite delight, but at its worst is an instrument to make the medieval torturer smile. In other words, it is strangely like our high, low, strong, weak, angelic, satanic human personalities.

The revelations of the electro-encephalograph were presented a few weeks ago in Memphis, before the Federation of American Societies for Experimental Biology, by Prof. Hallowell Davis, of the Harvard Medical School. As reported by William L. Laurence in the *New York Times*, Prof. Davis drew "outlines of a picture of life in which the activities of mind and matter constitute a super-radio, with the quintillions of living cells sending out their individual waves to be tuned in by quadrillions of receiving sets in the brain." The brain, according to this picture, which is still far from complete, "synchronized the infinity of rhythms into a symphonic poem, with the cortex of the brain, seat of the intelligence, as the conductor of the symphony."

We Each Play our Little Tune

Each of us, it appears, has a different brain-wave record, as shown by the electro-encephalograph—we each play our own little tune. One of us is like the Philharmonic under Toscanini interpreting the "Ride of the Valkyries" on delicate violin strings, while another perhaps is more like "Alexander's Ragtime Band." As Professor Davis puts it, in a more dignified way, "If our hypothesis is correct, it implies that the electrical activity of the brain is an objective index of either the degree or kind of neurological activity which is in

progress. The encephalogram, taken under standard conditions, seems to be quite characteristic for a given person."

The question, of course, which rises at once in the mind of every disciple of the healing art, is whether our jangling orchestras which are murdering the sweet symphonies of life can be brought back to harmony. If the brain is like a radio receiving set, can't we tinker it into tune? Our diathermy machines are working miracles every day with one kind of electrical pulsation, if cantankerous characters are due to twisted patterns of brain-waves, is it ridiculous to look ahead a generation or so and see some discovery that will put the patterns right—"take the sorry scheme entire" and "remold it nearer to the heart's desire?"

Popular misconception imagines that the psychiatrist deals only or chiefly with insanity. On the contrary, most of those who come to the average psychiatrist have no taint of madness, but have become miserable because of some subconscious conflict or other emotional disturbance. They are often, indeed, spoken of as "disturbed," and the electro-encephalograph reveals amazingly the extent and the intensity of the disturbance. It charts an undulating line similar to the one on the seismograph that tells the story of a distant earthquake.

Tommy's Brain Waves

This is shown clearly on the accompanying chart of "Tommy's brain waves," from a paper by Philip Solomon, M.D., of the Emma Pendleton Bradley Home at East Providence, R. I., published in the *Rhode Island Medical Journal*. It was at the Bradley Home, he says, that the electro-encephalograph was built by Dr. Herbert H. Jasper and Dr. Howard L. Andrews, of Brown University. It was tried on Tommy, eleven, "had been destructive, disobedient, hyperactive, impulsive and stubborn all his life. Some days, however, he would be perfectly good, and on other days terrible. There seemed to be no reason

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Cancer and Diet. With Facts and Observations on Related Subjects. By Frederick L. Hoffman, LL.D. Octavo of 767 pages. Baltimore, The Williams & Wilkins Company, 1937. Cloth, \$5.00.

The Operations of Surgery. By R. P. Rowlands, F.R.C.S. & Philip Turner, F.R.C.S. Eighth edition, Volume II, The Abdomen. Quarto of 998 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$10.00.

Internal Diseases of the Eye and Atlas of Ophthalmoscopy. By Manuel U. Troncoso, M.D. Quarto of 530 pages, illustrated. Philadelphia, F. A. Davis Company, 1937. Cloth, \$15.00.

Clinical Laboratory Diagnosis. By Samuel A. Levinson, M.D. and Robert P. MacFate, Ch.E. Octavo of 877 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$9.50.

The Psychology of Eating. By Lewis R. Wolberg, M.D. Octavo of 321 pages. New York, Robert M. McBride & Company, 1936. Cloth, \$3.00.

Cataract. Its Preventive and Medical Treatment, for Specialists, General Practitioners and Students. By A. Edward Davis, M.D. Octavo of 161 pages. Philadelphia, F. A. Davis Company, 1937. Cloth, \$3.00.

Ophthalmoscopy, Retinoscopy and Refraction. With New Chapter on Orthoptics. By W. A. Fisher, M.D. Fourth revised edition. Duodecimo of 210 pages, illustrated. Chicago, H. G. Adair Ptg. Co., 1937. Cloth, \$2.00.

The Cure of High Blood Pressure by Respiratory Exercises. By Lothar Gottlieb Tirala, M.D. Octavo of 71 pages, illustrated. New York, B. Westermann Co., Inc., 1937. Paper, \$1.25.

This is a carefully written treatise on the circulation and the factors entering into the development of high blood pressure. The author feels that by carefully regulated respiratory exercises, an elevated blood pressure may be avoided and a high pressure may be lowered. It is a thoughtfully developed theme and of interest to follow to note results.

HENRY M. MOSES

Senile Cataract. Methods of Operating. By W. A. Fisher, M.D. Third revised edition. Duodecimo of 150 pages, illustrated. Chicago, H. G. Adair Printing Co., 1937. Cloth, \$2.00.

The Ocular Fundus in Diagnosis and Treatment. By Donald T. Atkinson, M.D. Quarto of 142 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$10.00.

Handbook of Orthopaedic Surgery. By Alfred R. Shands, Jr., M.D. Octavo of 593 pages, illustrated. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$5.00.

The Thyroid and Its Diseases. By J. H. Means, M.D. Being an account based in large measure on the experience gained in the Thyroid Clinic of the Massachusetts General Hospital. Octavo of 602 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1937. Cloth, \$6.00.

Surgical Pathology of the Thyroid Gland. By Arthur E. Hertzler, M.D. Octavo of 298 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1936. Cloth, \$5.00.

Sexual Power. By Chester T. Stone, M.D. Duodecimo of 172 pages, illustrated. New York, D. Appleton-Century Company Inc., 1937. Cloth, \$1.50.

Feeding Our Children. By Frank H. Richardson, M.D. Duodecimo of 159 pages. New York, Thomas Y. Crowell Company, 1937. Cloth, \$1.00.

Physiology in Health and Disease. By Carl J. Wiggers, M.D. Second edition thoroughly revised. Octavo of 1124 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$9.00.

REVIEWED

Cosmetic Dermatology. With dictionary of ingredients, discussion of anatomic physiologic, and pharmacologic bases of cosmetic application, "self-tested" formulae, and appendices on odor and color in cosmetics. By Herman Goodman, M.D. First edition. Octavo of 591 pages. New York, McGraw-Hill Book Company, 1936. Cloth.

Here is a book to study, and use as a reference to good advantage time and time again.

The dictionary of official and non-official, ingredients used in dermatological

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St. N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

ample, overventilation of the lungs will induce seizures, but only in those patients who are subject to seizures

The Most Important Problem

"The demonstration of this specific chemical abnormality is the most important but most difficult problem before us," Dr Lennox states

"So far, physiological and chemical studies have dealt only with body fluids and with organs distant from the brain. We must now work with brains of patients. Advances in surgery make this more feasible than it once was

"Discovery of the specific something in the nerve cells' physiology which causes

them to discharge an abnormal rhythm may require many years. But we can greatly be heartened by recent enlargements of our knowledge of nerve activity"

Not long ago a best seller was entitled, "Why We Behave like Human Beings." Perhaps we are now making discoveries and finding material for another volume on "Why we Misbehave like Inhuman Beings." Misbehavior is not confined to the untunates in the dock of the police court. The high as well as the low have their brain-storms, their disturbed states, their wild, tossing waves of emotion, and a session with the new detecting instrument might reveal that many a one who thinks himself a Caesar is really instead merely suffering from a seizure

"PICKUPS"

"Becomes father at 92" Well—that's what he says—*Nebraska State Medical Journal*

"This stuff you sold me might be all right for some things," said the bald-headed man, "but it hasn't brung back my hair. Look at them bumps on my head"

The druggist looked at the label on the bottle

"Great Scott!" he gasped "I've made a terrible mistake. This is bust developer"
—*Colorado Medicine*

With some patients, when they are sick it is "Oh, doctor!" and when they get well it is "owe doctor"

"Frequent water drinkings," said the specialist, "will prevent you from becoming stiff in the joints"

"Yes, but some of the joints don't serve water"
—*U S Coast Guard*

Candidates for county coroner in Ohio must be licensed physicians, or have previously served as coroner, according to House Bill 67, passed by both houses of the Ohio General Assembly and signed by the Governor

Pathogenic bacteria given off by human beings and floating in the air cause the major portion of infected wounds originating in the operating room—*Journal of Thoracic Surgery*

A BIG GAIN IN TREATING BREAST CANCER

The chances of curing primary cancer of the breast, one of the most serious aspects of the disease, have increased from forty-six per cent in 1920 to eighty-seven per cent today, Dr Frank E Adair, secretary of the American Society for the Control of Cancer, reported at the annual meeting of the society's board of directors, in Memorial Hospital, 2 West 106th Street.

Dr Adair, who was re-elected secretary of the society, cited the progress as evidence of the value of the educational campaign which the society has carried on for

twenty-four years. He attributed it to the increased attention paid by women to early symptoms indicative of the disease. His figures were based upon a survey at Memorial Hospital, where he is a staff member.

Other officers elected were Dr Frederick F Russell, of the Harvard School of Public Health, president, Dr John J Morton of the Strong Memorial Hospital, Rochester, vice-president, Calvert Brewer, of New York, treasurer, and Dr E B Wilson, also of the Harvard School of Public Health, chairman of the board of directors

It consists essentially of the reports published in the separate issues of the *Journal of the American Medical Association*

The physician has, therefore, in compact form the report of the activities of the Council on Pharmacy and Chemistry. A perusal of these reports will keep the physician abreast of the latest developments in new remedies

CHARLES SOLOMON

The Management of Obstetric Difficulties
By Paul Titus, M.D. Octavo of 879 pages, illustrated. St. Louis, The C V Mosby Company, 1937. Cloth. \$8.50

At last we have a text-book which is not only entirely different, but extraordinarily good. Not at all conventional, not intended for undergraduate students, normals and fundamentals are omitted entirely or passed over lightly, and obstetrical difficulties and emergencies are thoroughly, yet clearly discussed. Gynecological subjects, which touch obstetrics closely, are very properly included, and the chapter on sterility for instance, is as well done as the chapter on forceps or the introduction

The work of Caldwell and Moloy in their morphologic classification of pelves is given more space and is more clearly explained than in any other text-book.

It is rather brief but sufficient bibliographies are appended to every chapter, so that the less advanced students of obstetrics may follow subjects through if they so desire.

The book is not too long, about 800 pages, well illustrated, good looking, and more valuable for specialists than any other text-book on obstetrics this reviewer has seen. It is nothing if not practical and useful, and Paul Titus should feel very proud of his work. It is highly recommended as well-nigh perfect.

CHARLES A GORDON

Physical Therapeutic Methods in Otolaryngology
By Abraham R. Hollender, M.D. Octavo of 442 pages, illustrated. St. Louis, The C V Mosby Company, 1937. Cloth. \$5.00

Since the earliest writings in medicine, physiotherapy has held a variable position in therapeutics. Today, with a volume of this kind, the otolaryngologist can readily determine and evaluate the various modalities. With the recent employment of short wave apparatus, there has been a good deal of confusion. The perusal of the chapter

on short wave will give the reader last-minute and accurate information. All phases of electrotherapy are covered, the various terms explained, and historical notes given.

This is an unusually fine book and will be of great assistance and highly instructive to the physician who has no doubt as to the value of physiotherapy and the place it should occupy in his armamentarium.

SAMUEL ZWERLING

Starling's Principles of Human Physiology
Seventh edition edited and revised by C. Lovatt Evans, F.R.C.P. & H. Hartridge, M.D. Octavo of 1096 pages, illustrated. Philadelphia, Lea & Febiger, 1936. Cloth, \$8.75

The seventh edition of Starling's Human Physiology, edited by Evans and Hartridge, contains a few important changes from the previous one. Somewhat reduced in size it has been revised so as to include discussions of new methods for recording nerve impulses, for the study of the reproductive cycle, and for the investigation of urine formation. The feature of placing appropriate references in the form of footnotes, first introduced in the previous edition, is continued and enlarged upon in the present one.

DAVID I ABRAMSON

The Diagnosis and Treatment of Diseases of the Stomach and Intestines. By William F. Cheney, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 378 pages. New York, Oxford University Press, 1936. Cloth, \$5.50

This monograph is written by one who has had a large experience in internal medicine, and more especially in diseases of the stomach and intestine.

Without reference to the voluminous literature, and in a simple and direct manner, the author describes advances in the methods of diagnosis, and in the treatment of gastrointestinal diseases. In the differential diagnosis of acute gastritis and in the discussion of chronic gastritis the physician will find much of value.

The book is equally divided into two parts, the first dealing with diseases of the stomach, and the second with diseases of the intestines.

The reading matter is well arranged and includes a discussion of the subject in a most comprehensive manner.

IRVING GRAY

practice, as well as in all types of cosmetics, is complete. If one has a favorite prescription, and wants to know whether any particular ingredient is worthy of inclusion, he can find its physical properties, and physiological action, in this section.

Following are chapters on Acne and Facial Blemishes, Baldness, Poison Ivy, Psoriasis, Ringworm and Scabies which are attacked from a therapeutic angle, rather than a diagnostic one. Then are chapters on such cosmetics as clays, cold cream, brilliantine, depilatories, hand lotions and lip preparations, as well as comments on the method and value of skin peeling in acne, permanent waving, etc. Included with these are formulae of prescriptions (hosts of them) arranged so that one may tell which are most satisfactory from a therapeutic and cosmetic standpoint.

One could wish that comments on the effect of repeated permanent waving were included, as an instance of where this book could increase its already great value.

The author's outline in the introduction, giving a method of using the book to refresh the readers' memory on anatomy of the skin,—of characteristics and uses of drugs, etc. is enlightening, and anyone following this procedure will be benefitted.

E ALMORE GAUVAIN

Physiological Principles in Treatment. By Sir Walter Langdon-Brown, M.A. and Reginald Hilton, M.A. Seventh edition. Octavo of 308 pages. Baltimore, William Wood & Company, 1936. Cloth, \$3.00.

The new edition of this well-known book presents a considerable revision over the previous one. Not only are recent advances in physiology discussed, but their pertinence to treatment ably presented. While of necessity the discussion of each subject is brief, the authors have appended a bibliography of recent outstanding monographs and reviews which should prove valuable to those readers stimulated to seek further information.

The subjects of digestion and the circulation are particularly well discussed. One wishes a little more space might have been given to the physiology of respiration.

G B RAY

Food and the Principles of Dietetics. By Robert Hutchison, M.D. and V. H. Mottram, M.A. Eighth edition. Octavo of 634 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$6.75.

This book is more of a teaching manual to give students the elementary facts about the chemistry and physiology of food, than a reference for the medical man. Although the author does touch on therapeutic diets in the last few chapters, the principles outlined are vague and out-of-date according to more recent experimentation in America. Being an English book, their system of weights, measures, and cost are used in all the charts and cost studies. The book covers too many subjects, ranging from the requirements of the body, the chemistry and physiology of food, some pathology, and lastly to therapeutic dietetics. It would seem to the reviewer that this amount of information could easily be divided into more than one book and that more precise and useable data be given. Although some ideas could be gathered as one peruses the pages of this book, it would, no doubt, be more adaptable as a student reference than a book for either the practitioner or dietitian.

MORRIS ANT

Lectures on Embolism and Other Surgical Subjects. By Gunnar Nystrom, M.D. The Abraham Flexner Lectures Series Number Four. Octavo of 213 pages, illustrated. Baltimore, Williams & Wilkins Co., 1936. Cloth, \$3.00.

This series of five lectures, given at the School of Medicine of Vanderbilt University, has made possible the better appreciation of advances made in surgery at the University of Uppsala, Sweden. In a very small volume, the professor has detailed the surgical treatment of embolism, as found in the various cavities of the human body, as well as the superficial locations. The most interesting lecture is that on the treatment of the fracture of the surgical neck of the femur. This alone is worth more than the price of the book. Other lectures touch upon Swedish experiences in treating appendicitis, also a talk on cytology of joint exudates as an aid to diagnosis. An interesting and instructive book for reading at odd moments.

EUGENE W. SKELTON

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1935 with the Comments That Have Appeared in the Journal. Duodecimo of 139 pages. Chicago, American Medical Association, 1935.

This annual reprint contains the reports of the Council that have been adopted during 1935.

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RECENT ADVANCES IN INHALATION THERAPY IN THE TREATMENT OF CARDIAC AND RESPIRATORY DISEASE

Principles and Methods

ALVAN L. BARACH, M.D., *New York City*

*From the Department of Medicine, College of Physicians and Surgeons, Columbia University,
and the Presbyterian Hospital*

The purpose of this communication is to interpret the experience of investigators in oxygen therapy during the past two decades and to present other more recent advances in inhalational therapy.

In 1920 the physiological basis for the therapeutic use of oxygen had already been clearly stated.¹ The dangerous consequences of acute oxygen-want had been demonstrated by careful studies in closed chambers in which the air was artificially deprived of oxygen. Barcroft² lived for six days in an atmosphere in which the partial pressure of oxygen was eighty-four mm and in which the oxygen saturation of his arterial blood was eighty-eight per cent. He lay in the chamber racked with headache, with occasional vomiting, faint on exertion and at times able to see clearly only as an effort of concentration. His pulse was fifty per cent higher than its usual level. More severe oxygen-want was shown to create even more serious consequences in which the pulse became fast and feeble, the respiration rapid and shallow, and consciousness greatly impaired or lost. By means of the arterial puncture³ and accurate methods of blood gas analysis,⁴ it was shown that the arterial blood of patients with pneumonia at times contained a markedly diminished oxygen content, frequently sufficient of itself to produce the symptoms above mentioned. During the years 1921 and 1922, it was shown that the administration of forty to sixty per cent

oxygen to patients suffering from pneumonia⁵ and cardiac insufficiency⁷ was capable of raising the arterial oxygen saturation from an abnormally low level to or near the normal value and that clinical improvement frequently followed this procedure.

From that time on numerous reports were made on the therapeutic use of oxygen in various clinical conditions and descriptions of new methods appeared during the same interval. Our purpose is not to review the entire body of this literature but to consider the evidence which is most pertinent to our discussion of the following disease syndromes.

Lobar Pneumonia and Broncho-pneumonia

The effect of adequate oxygen therapy on the mortality rate of patients suffering from either lobar or broncho-pneumonia has been difficult to obtain because of the absence of a sufficiently large control group with which to make comparison with an oxygen treated group. It has been shown by Binger⁸ at the Hospital of the Rockefeller Institute that a positive correlation existed between anoxemia and mortality, thus, the mortality of eighty-three patients with an arterial oxygen saturation above eighty per cent was twenty-four per cent, whereas the mortality of forty-eight patients with an arterial oxygen saturation below eighty per cent was fifty-six per cent. (This

MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY and CONNECTICUT

Announcement

New Designation for the Medical Directory

In 1936 the Laws of New York were revised, Chapter 459, to provide for qualification of psychiatrists by the new Board of Psychiatric Examiners. It is desired that all those physicians in New York State who have received formal qualification by this Board notify the office of the Medical Society of the State of New York, 2 East 103 Street, New York City, at the earliest possible moment of the fact of their qualification. An appropriate designation will be inserted in the new Directory in all such instances.

While there is no blank space on the cards already mailed to the physicians of the State for this new qualification, the fact may be indicated somewhere on the card. If the card has already been returned it is hoped that each such physician will send the information in by personal letter.

PETER IRVING M D, *Secretary*
Journal Management Committee

able variation, should in general be determined by the estimation of continuing impaired function of the lung or heart. In cases of lobar pneumonia, the return of the temperature to approximately normal levels with a proportionate drop in the pulse rate and respiration indicates that oxygen therapy may be withdrawn. In bronchopneumonia, or where there is an excessive moisture in the lung, the termination of oxygen treatment should be undertaken more carefully, because the function of the lung may show a sharp reversal when oxygen therapy is stopped. Under these circumstances, it is frequently advisable to lower the concentration from fifty to thirty-five per cent during the first twenty-four hours and to take the patient out on the following day. The question of dosage will be discussed separately at the end of this paper.

The addition of carbon dioxide, in excess of one or two per cent, to oxygen mixtures in the routine treatment of pneumonia is not warranted since (1) no convincing clinical evidence has been presented in its favor, (2) labored breathing, nausea, and vomiting may result from concentrations above 3.5 and four per cent, (3) if there is any obstructive condition in the respiratory tract, the increased pulmonary ventilation would tend to promote pulmonary edema by increasing the negative intrathoracic pressure.^{17, 18}

The hydrogen ion concentration of the blood in pneumonia is generally within the range of accepted normal values,¹⁹ although carbon dioxide retention has reported in a few cases with widespread pulmonary involvement.^{20, 21} More commonly, the CO₂ content of the arterial blood is lowered during the febrile course of the disease and is higher in convalescence.^{19, 21} The decrease in blood CO₂ represents a compensated alkalosis associated with hyperpnea, in our opinion. When the increased ventilation is due to anoxemia and reduced by oxygen inhalation, the carbon dioxide content of the blood can be expected to rise, a phenomenon which occurs regularly in the relief of cardiac dyspnea by oxygen inhalation.²² The small amount of CO₂ permitted in most closed circuit oxygen therapy apparatus, under 1.5 or two per cent, appears to do no harm whereas concentra-

tions higher than two per cent measurably increase the volume of air breathed and aggravate the dyspnea. The theoretical advantages Henderson and his associates²³ claimed for its use do not justify employment of excess CO₂ except in rare demonstrated cases of acapnia or as an adjuvant to oxygen therapy in accidental asphyxia, such as CO poisoning. Morphine is of value for the opposite reason that it lowers pulmonary ventilation and promotes sleep and rest, but it should be used in conjunction with oxygen therapy since it has been shown that it sometimes results in serious oxygen-want.²⁴

The use of sodium bicarbonate, recommended in certain cases in which the hydrogen ion concentration appeared shifted to the acid side,²⁰ is not indicated in the routine management of the disease since in subsequent reports a condition of acidosis has not been found. A report of an unusual case²⁵ has been used as argument against the administration of sodium bicarbonate in pneumonia.¹⁹ In this patient, a woman forty-seven years old, generalized edema occurred more than a month after onset of illness and following the administration of five to six grams of sodium bicarbonate for a period of five weeks. The patient gave a history of dyspnea on slight exertion for six years and presumably had had circulatory deficiency. Sodium bicarbonate was stopped and during two exposures of forty per cent oxygen a diuresis occurred coincident with a fall in pulmonary ventilation. The improvement which promptly took place is of considerable interest in connection with the diuresis produced in patients with congestive cardiac edema as a result of oxygen inhalation. We wish to point out that the ingestion of the sodium ion over long periods of time in this case is not considered applicable to the disease lobar or bronchopneumonia. Certainly in the presence of a history suggestive of heart disease, sodium should not be administered either in the form of sodium bicarbonate or sodium chloride. However, in peripheral circulatory failure which at times takes place in pneumonia (due to shock), Atchley has found that the intravenous injection of relatively large amounts of normal sodium chloride solution to have been of definite value.²⁶ Al-

group was also partially treated with oxygen.) In Stadie's series,⁹ the mortality of thirty-two patients was twelve per cent for those who had little or no cyanosis (above 80-85% arterial oxygen saturation) and ninety-three per cent for those who had moderately severe cyanosis (below 80-85% arterial oxygen saturation). Barach¹⁰ has reported two series of severe cyanotic pneumonia patients. The first had a mortality of forty-five per cent in 100 cases and the second group 46.7 per cent in a series of 124 cases. Since these patients belonged to the group in which the patient had generally taken a turn for the worse, including the occurrence of definite cyanosis, this mortality appeared lower than that to be expected in severe cyanotic pneumonia untreated by oxygen. Up to the present time, it has not been possible to use the alternate case method in a statistical evaluation of oxygen therapy. The difficulty of allowing a patient with severe oxygen want as revealed by dyspnea, rapid pulse, and cyanosis to exist as a control untreated case is apparent. This situation was made more complicated by the demonstration, in individual cases, that the withdrawal of oxygen therapy during the course of severe pneumonia was followed by cardio-respiratory failure of such severity that a fatal outcome would have taken place unless oxygen therapy had been reinstituted.^{11, 12} During the past seventeen years, the author has had abundant confirmation of the fact that oxygen therapy in patients with severe anoxemia due to widespread involvement of the lungs or to marked cardiac insufficiency is responsible for the continuance of life, and in a certain number prolongs life sufficiently so that a favorable outcome results. The experience of Boothby and Haines¹³ and Moersch and Boothby¹⁴ indicated even more striking benefit in postoperative pneumonia, not only did marked improvement occur incident to the initiation of oxygen therapy, including a characteristic temperature drop, but the occurrence of postoperative pneumonic complication seemed to be definitely diminished when oxygen treatment was begun immediately after operation. M. W. Binger, Judd, Moore, and Wilder¹⁵ reported a smaller incidence of deaths from pneumonia in

1393 cases in which oxygen tents were used than in 1485 cases in which tents were not used. The figures seemed more significant when related to the time of onset of oxygen therapy. In 158 cases in which oxygen was used one to four days after operation, there were four deaths from pneumonia, in forty-seven cases in which oxygen was given five days or more after operation there were eighteen deaths from pneumonia. In an analysis of 261 oxygen-treated cases on the medical wards of the Presbyterian Hospital, the mortality was classified according to the duration of treatment. In forty-seven cases who were treated with oxygen for one day or a part of a day, the mortality was 87.2 per cent, in sixty-nine cases treated for two to three days, the mortality was 62.3 per cent, in 155 cases treated for four or more days the mortality was 39.3 per cent. In the latter group, there were 101 cases treated by nasal catheter (oxygen concentration at that time thirty-two to thirty-five per cent in the inspired air) with a mortality of 43.5 per cent, and thirty-five cases treated in the oxygen room (oxygen concentration fifty per cent with a mortality of 28.5 per cent.¹⁶ Our own data and that from the Mayo Clinic workers indicate clearly the importance of early and effective oxygen therapy in order to test the value of oxygen treatment.

The indication for oxygen treatment is the first clinical evidence of a diminished oxygen tension in the tissues of the body. We have learned to realize that cyanosis does not begin to show itself until a ten per cent diminution in the oxygen saturation of the arterial blood has already taken place and that in patients with severe anemia cyanosis may not be demonstrable even when the oxygen tension of the arterial blood is lowered thirty or forty per cent. We must have recourse then to other signs of an insufficient oxygen supply to the organism. Emphasis should be chiefly given to a rapid pulse out of proportion to the fever, to the existence of anemia even of slight degree, to the presence of a grayish color, to rapid, shallow respiration and to irrationality, in short, to the symptoms of oxygen-want when they are experimentally produced. The duration of oxygen treatment, although subject to consider-

restored to ambulatory activity This effect of oxygen therapy on congestive heart failure due to arteriosclerotic heart disease has been demonstrated in cases in whom chronic cardiac insufficiency was unrelieved by bed rest and the use of digitalis, diuretics, and other treatment. The omission of adequate oxygen treatment is responsible in some cases for persisting decompensation

Group 3 In acute coronary thrombosis, an abrupt interference with the supply of blood to the coronary artery results in a severe oxygen-want to the heart muscle itself Although there are patients who recover without oxygen treatment and still others in whom the closure is so marked as to result in inevitable fatality, there is a large middle group in whom the continuous inhalation of fifty per cent oxygen prolongs circulatory function until convalescence is established²⁸ In some cases, as well as in cases of acute cardiac or respiratory insufficiency from other causes, it is advantageous to give ninety to one hundred per cent oxygen for the first twelve hours, as will be discussed later Since the cardiac muscle is peculiarly dependent for its adequate functioning on a normal oxygen supply, the increased tension of oxygen in the arterial blood in these cases is of critical importance and to our mind the most valuable therapeutic measure in the treatment of this condition In a case that was very carefully observed, the institution of oxygen treatment was followed within one-half hour by a disappearance of the ashen gray color to the face and a slowing and increased volume of the pulse and a disappearance of dyspnea, oxygen was withdrawn after several hours of treatment in order to determine whether the benefit observed was dependent on the maintenance of the increased oxygen supply, with the result that the patient again became dyspneic, of an ashen gray appearance, and the pulse turned rapid and feeble Resumption of oxygen treatment was followed by a similar improvement to that originally obtained and the patient ultimately recovered The management of acute coronary thrombosis has no physiological indication that is more well-founded than the employment of high concentrations of oxygen It is not within the scope of this presentation to review the physiological data which illustrate that the function of the heart muscle is unusually sensitive to oxygen-want, but it may be mentioned that cardiac glycogen cannot be made to disappear by the most strenuous forms of exercise but is known to decrease swiftly when the oxygen concentration of the inspired air is substantially lowered.²⁹

Chronic Pulmonary Disease

In 1927 Campbell and Poulton³⁰ reported that patients with chronic bronchitis and emphysema were markedly improved as the result of residence in an oxygen chamber with forty per cent oxygen Their dyspnea, cough, and sputum diminished, appetite was increased and patients gained weight Measurement of the pulmonary ventilation showed a definite fall In some cases the improvement was transitory, in others it persisted for months Richards and the author³¹ reported the use of oxygen for long periods of time in patients with pulmonary emphysema, fibrosis, and chronic bronchitis, and our results confirm those of the above authors In addition, it has been shown that patients with pulmonary emphysema and varying degrees of fibrosis experience not only a marked subjective relief but a very real improvement in the measurements of respiratory function, such as vital capacity, pulmonary ventilation, restoration of normal or nearly normal arterial saturations Their behavior may be compared with that of the patient with chronic congestive heart failure, with several differences In the first place, they are more apt to develop a deep sleep or even a comatose state for a temporary period In the second place, the waking cough and abundant expectoration which these patients frequently show may entirely disappear during the period of residence in a high oxygen concentration Finally, there is a marked difference in the reaction of the patient to withdrawal of oxygen

In all of these cases it is of primary importance to lower gradually the oxygen concentration of the air breathed, or the symptoms of oxygen deprivation—such as cough, expectoration, and dyspnea—will recur Furthermore, these patients generally do not develop that type of functional reserve that is characteristic of the patient with congestive heart failure If oxygen treatment is totally withdrawn, a recurrence of the original symptoms takes place gradually, for that reason, it has been our practice to provide patients with chronic pulmonary disease, intermittent oxygen treatment when a period of continuous oxygen therapy has terminated This applies to pulmonary fibro-

though no general indication exists for the employment of either sodium bicarbonate or sodium chloride, there appears to be no contraindication for the use of either if special circumstances arise which provide adequate indication

Cardiac Insufficiency

Although it had been shown in 1921 that the oxygen concentration of both arterial and venous bloods could be substantially elevated by the inhalation of fifty per cent oxygen,⁷ the special therapeutic effectiveness of the continuous inhalation of oxygen in various types of congestive and coronary heart failure were not made clear until studies started at the Presbyterian Hospital in 1930.²⁷ Since that time, 120 patients have been reported in various communications in which oxygen therapy was carried out. We may divide these cases into three groups (1) congestive heart failure associated with rheumatic disease of the heart, (2) congestive heart failure with nonrheumatic disease, including either arteriosclerotic or coronary heart disease, (3) acute coronary thrombosis

In the first group, the special value of oxygen inhalation is in the treatment of acute decompensation, in which the inhalation of fifty per cent oxygen is often of critical help in relieving the dyspnea and in removing the effects of arterial anoxemia on an overburdened heart muscle. When the acute symptoms of cardiac insufficiency are relieved, the patients with chronic rheumatic heart disease generally show little permanent benefit from a continuance of oxygen treatment. Frequently a state of compensation is maintained with the help of continuous oxygen, but the patient influenced by the rheumatic virus is less apt to show a more lasting improvement from oxygen therapy than the patient with congestive heart failure due to arterial sclerotic disease

Group 2 When congestive heart failure takes place in a patient suffering from arterio-sclerotic heart disease, the effects of continuous oxygen therapy are more striking. Dyspnea and restlessness begin to be relieved within a period of three or four hours and after two or three days are often completely relieved. The arterial oxygen saturation is restored to normal or raised slightly above normal within the first hour,

between the third and the sixth day after the initiation of treatment in favorable cases, a diuresis takes place which in many instances has been shown to be specifically dependent on the increased concentration of oxygen in the inhaled air and not due to further rest in bed. It has been shown in carefully studied cases that the diuresis may abruptly cease when the oxygen concentration is lowered to that of the atmosphere. There is a marked improvement in cough, orthopnea, and insomnia in cases in which dyspnea and insomnia have been previously severe. Oxygen treated patients may develop a state of stupor, with irrationality when aroused, lasting from one to five days. In our experience this is a sign of previously existing oxygen-want affecting the cerebral tissues and is a reaction, a sudden change in oxygen tissue tension. It is uniformly followed by a lucid and cheerful mental state, and is an indication for continuation rather than interruption of treatment.

Of the changes in respiratory metabolism, the most striking is the rise in the carbon dioxide content of the arterial blood. This may increase from ten to twenty volumes per cent, beginning on the first day and continuing for a week to ten days. As the patient regains compensation, the blood CO_2 progressively falls. This phenomenon has been interpreted as a mechanism developed by the patient in order to permit an adequate exit of carbon dioxide under conditions of a lowered pulmonary ventilation which oxygen treatment makes possible. In these patients the pulmonary ventilation may be reduced in a week from twelve liters per minute to six liters per minute because of the higher tension of oxygen in the inspired air. The increase in the concentration of carbon dioxide in the arterial blood makes possible a larger output of CO_2 per unit of breathing, in that way preventing an undue retention of CO_2 in the body tissues.

In these patients, after two or three weeks of fifty per cent oxygen, it is advisable to lower the oxygen concentration gradually. If the chamber or tent has been previously used, the double nasal catheter (or the catheter in the oral pharynx) may be employed at five liters per minute, yielding an oxygen concentration of approximately thirty-eight to forty per cent, during the succeeding two weeks. A gradual lowering of oxygen concentration should be achieved by reducing the flow of oxygen one liter per minute each two or three days. When this technique is carried out, no sharp reversal of circulatory function is apt to take place, and the patient may be

during the inspiration of the gas and decreasing the effort required. During expiration there is a more uniform and complete emptying of the alveoli due to the distending effect on the smaller tubular structures which otherwise tend to collapse during expiration.

We have also employed a hood which fits with a rubber collar around the neck, enclosing only the head, for treatment of these patients, particularly those in status asthmaticus and for those in whom more continuous treatment is desirable. This method is more comfortable to patient.

In the treatment of status asthmaticus, hypertonic solutions are of help in reducing bronchiolar edema. Intravenous injections of one hundred c.c. of fifty per cent sucrose is especially recommended. Mild sedative is desired, as may be obtained with codeine and luminol, but morphine except in small doses is dangerous since it may result in respiratory failure. The relief of status asthmaticus in apparently moribund patients by inhalation of helium-oxygen mixtures has been confirmed by Maytum, Prickman, and Boothby.²³

The relief which helium-oxygen mixtures under slightly positive pressure induces creates in the patient an artificially imposed betterment in pulmonary ventilation which is followed by an actual improvement in bronchial spasm and total respiratory function.

Obstructive Dyspnea in the Upper Air Passages

In obstructive conditions of the trachea, larynx, and larger bronchi, helium-oxygen mixtures with and without slightly increased positive pressure have been used, the physiological principle being comparable to that of its use in asthma. There is one difference, namely, that constriction of the smaller bronchial tubes takes place in the asthmatic patient during expiration owing to the termination of the inflating effect of the negative pressure within the chest and in some cases to a positive pressure expiratory force which locks air in the alveoli by further compressing the bronchioles. In the respiratory tubes outside the chest this effect is absent and the cartilaginous rings of themselves tend to maintain the

integrity of the lumen. Since Moore and Binger²⁴ have shown that expiratory obstruction has few if any pathological consequences in the lungs, whereas obstruction of the inspiratory cycle has the dangerous results of producing pulmonary congestion and edema, and in some instances emphysema,^{25, 26, 27} the effect of positive pressure is itself of considerable value in obstructive dyspnea.

Patients with obstructive lesions in the larynx have been sufficiently relieved of their dyspnea by continuous inhalation of helium-oxygen mixtures as to avert tracheotomy in some instances.^{28, 29} In one recent case, a threatened asphyxial death due to a tumor pressing on the trachea and larger bronchi was averted by helium-oxygen inhalation. The tumor proved to be radium sensitive and in two weeks the patient was entirely free from dyspnea even in the absence of helium treatment. The function of helium in this group is to provide relief to obstructive dyspnea until such time as the cause of the pathology is removed and the disease process clears up. A detailed study of a series of twenty cases is shortly to be presented by Kernan and the author in some of which tracheotomy was averted by helium-oxygen treatment.

Edema of the Lungs

The use of positive pressure in the treatment of obstructive dyspnea has been extended to the treatment of acute pulmonary edema occurring as a complication of pneumonia or as a direct manifestation of cardiac insufficiency. We are unable at this time to review in detail the pathological physiology of this disease entity. However, it is plain that there is an increased exudation of serum from the capillary blood vessels within the lung. There is generally an increased accumulation of blood in the capillaries so that, in many instances, it is possible to assume an increased pressure is present in these vessels, with a consequent tendency for them to leak serum into the alveolar spaces. There is an additional hypothesis that the right heart expels a greater amount of blood than the left ventricle can handle,³⁰ but this theory merits separate discussion.

It has been found clinically, however,

sis whether caused by old tuberculosis or nonspecific infection or irritation, or whether associated with bronchiectasis or emphysema. Inhalations of one hundred per cent oxygen through a portable face tent or mouthpiece apparatus may be given for one-half hour two or three times a day. In some cases nasal oxygen, two to four liters per minute, is given at night. The value of maintaining oxygen treatment consists in the periodic alleviation of a continuous oxygen deficit and in intermittent relief of an over-distended condition of the lung.

Asthma

Oxygen treatment has been used in severe asthma in the attempt to supply an adequate oxygen tension in the alveolar air and thus overcome the threat of asphyxiation induced by the narrowed bronchi and bronchioles. Although some benefit has been achieved in this way, the significant disturbance in severe asthma appears to be due to an inability on the part of the patient to provide himself with adequate pulmonary ventilation except at a cost of a dangerous interference with the physiological mechanics of breathing. In order to deliver to the alveolar spaces a velocity of air flow that provides comfort, the patient develops a pathologically elevated intrapleural and intrathoracic negative pressure of such degree as to initiate respiratory fatigue, which may progress to cessation of respiratory activity, congestion, and edema in the lung and circulatory failure. The increased negative pressure within the chest aids the inlet of blood into the right heart and into the lungs but handicaps the outlet of blood from the left ventricle into the extrathoracic aorta, with the result that the pulse becomes rapid and small in volume and the lungs accumulate blood. In addition there is a suction action on the capillaries in the alveolar wall tending to produce an exudation of serum into the alveolar spaces. Furthermore, there takes place an exudation of seromucous nature into the bronchiolar passages themselves which additionally increases the obstruction.

To counteract this pathological physiology, helium was proposed as a therapeutic gas to be used with oxygen in con-

centrations comparable to that present in air.³² The decreased specific gravity of helium in relation to nitrogen makes possible a mixture of twenty-one per cent oxygen and seventy-nine per cent helium which has almost one-third the density of air and requires almost one-half the physical effort to deliver such a gas through a constricted orifice.

Over forty cases of severe continuous asthma, including ten instances of status asthmaticus, have been treated by intermittent or continuous inhalation of helium-oxygen mixtures, generally with positive pressure in addition. These cases had all been refractory to adrenalin and had failed to respond to other measures. In the grave cases of status asthmaticus, the method proved to be a life-saving measure. In more chronic cases in a period from one to five days of intermittent treatment, patients have been restored to a state of adrenalin sensitivity and have become free from continuous asthma, although a permanent cure of the state of asthma has not been thereby achieved. However, these patients have been able to return to their homes or occupations in the majority of instances. In other cases, return of severe asthma has occurred after a short interval and became an indication for repetition of the treatment.

In the patient with chronic, more or less continuous asthma, the mixture may be breathed for periods of from one-half to three hours through a mouthpiece or mask closed circuit rebreathing apparatus. The dyspnea is relieved, varying with the extent and character of the bronchial narrowing, between fifty and one hundred per cent. The rales are either greatly diminished or disappear. This applies particularly to the rales present during inspiration. The pathologically elevated negative intrapleural pressure is reduced, the pulmonary ventilation is lowered, and the circulation is improved. As the treatments are repeated, the patient becomes more rested, sleep takes place, and adrenalin sensitivity is gradually restored. A slight increase in positive pressure during the inhalation of the helium-oxygen mixture, such as from one to five cm of water, is of decided value in increasing the velocity of entrance of the mixture into the lung.

oxygen in physical solution in the blood provided by the inhalation of one hundred per cent oxygen is of critical value. High concentrations are of special importance in the author's opinion, in acute coronary thrombosis. Sayers⁴⁸ found that animals may survive concentrations of one hundred per cent oxygen for as long as sixteen hours a day, and human beings have been exposed without apparent harm to one hundred per cent oxygen for as long as ten hours a day⁴⁸. The author found that when rabbits were exposed to one hundred per cent oxygen for sixteen hours a day and fifty per cent oxygen the remainder of the period, pathological section of their lungs revealed scattered areas of edema in the alveolar cells within three to five days, and after exposure for periods as long as two weeks evidence of interstitial pneumonia. When the period of inhalation of one hundred per cent oxygen was lowered to twelve hours a day, these pathological changes did not take place. It appears, therefore, that patients with evidence of severe anoxemia may tolerate the inhalation of 100% oxygen for approximately 12 of the 24 hours.

The inhalation of one hundred per cent oxygen for six to ten hours a day has been used by Fine⁴⁹ and his collaborators in the treatment of abdominal distension, the principle being that the nitrogen and other gases in the intestine will diffuse through the pulmonary capillaries more quickly when there is not an opposing pressure of oxygen in the alveolar air. In certain cases of acute cardiac insufficiency that follow operations, the inhalation of one hundred per cent oxygen for a limited period may be of special value. The usefulness of pre- and postoperative oxygen treatment in patients with advanced heart disease, as reported by Barach, Richards, and Parsons,⁵⁰ indicated that severe postoperative reactions could be avoided to a large extent in this way.

Among the technical methods for the administration of oxygen, the oxygen chamber appears to be the most comfortable to the patient. Instead of using a motor blower unit for ventilating the chamber, as employed by Stadie,⁵¹ Barcroft,⁵² Campbell and Poulton,⁵³ and Binger,⁵⁴ the author⁵⁵ accomplished a

similar purpose by thermal circulation within the chamber. During the past year, a hospital room in the private pavilion of the Presbyterian Hospital has been converted into an oxygen room, using the same principle of air circulation. Along one wall three horizontal banks of brass pipe were erected through which the hospital brine circulated. Each bank of coils was equipped with a thermostatic control valve which turned off the brine when the temperature fell below 35°F. Under the coils a metal trough caught the condensed water. At the opposite side of the chamber the steam radiator was placed and to it was attached a thermostatic control. The window of the room was made leaktight by covering it with a rubber-gasketed window frame. The various fixtures in the bathroom were made leaktight and the wall covered with several coats of leaktight paint or enamel. The door entering the room was lined with a rubber gasket so as to be made leaktight when closed. A long handle was employed in order to exert greater pressure on the rubber gasket and to facilitate opening and closing the door. A rubberized curtain was suspended inside the door in order to prevent a rapid loss of oxygen when the room was entered. If the curtain is not pushed to one side when the door is opened, but allowed to remain in place until the door is closed, frequent entrances or exits from the room may be made with small loss of oxygen. The curtain is superior to a lock cabinet in saving of oxygen. A panel is placed in front of the brine coils which is perforated by holes one-half inch in diameter along the upper three feet of the panel and the lower three feet as well. This allows the cold air to pass downward behind the panel and through the perforations into the room and the warm air to rise and enter the top of the panel. The perforations along the lower margin of the panel may be closed by an overriding screen so that the volume of cold air can be controlled. In this chamber, temperatures between 50 and 80° F may be obtained as well as a wide range of relative humidity, as low as fifteen per cent. The chamber is generally maintained at a temperature between 60 and 70° F with a relative humidity of thirty

that positive pressure inhalation of helium-oxygen mixtures or of oxygen or of air will result in a swift clearance of the symptoms of pulmonary edema. This effect was first described in animals by Haven Emerson,³⁹ when he observed that edema of the lungs produced by adrenalin cleared up when artificial respiration was employed. The first clinical example of the successful treatment of pulmonary edema by positive pressure respiration was reported by Norton⁴⁰ in 1897, using the Fell-O'Dwyer forced respiration apparatus.⁴¹ Poulton⁴² has reported beneficial results from its use in cases of paroxysmal dyspnea (cardiac asthma) and has used the suggestion of Plesch⁴³ that it be used in edema of the lungs with "rattling" respiration. We have made a preliminary report on the treatment of acute pulmonary edema by positive pressure respiration,⁴⁴ and will report (separate publication) the physiologic effects on the circulation of breathing under slightly increased positive pressure.

In this general review we will confine ourselves to a report of the method of application and the clinical results. Patients with acute edema of the lungs occurring as a sequence of cardiac insufficiency in pneumonia, cardiac disease or prolonged asthma have shown a definite clearance of edema as a result of breathing under a positive pressure of approximately five cm of water. The signs of edema disappear within five to twenty minutes and continue to be absent as long as the pressure is applied or until the original cause of the edema has been removed. From the report of Norton, it may be expected that edema of the lungs produced by chemical irritants may also be controlled by the application of positive pressure to the inspired air.

When tracheotomy is performed on patients in whom obstruction in the larynx has existed for a considerable period, a profuse production of edema fluid takes place which requires aspiration and suction at frequent intervals for many days and sometimes weeks. Woodman⁴⁵ showed that breathing against positive pressure during expiration resulted in an abrupt checking and disappearance of the previously formed edema. Kernan and the author (to be published)

have confirmed this finding and shown that the application of five cm of water during the expiratory cycle was followed by the clearance of serous and mucous fluid in the tracheobronchial tree. With a gradual lowering of the positive pressure the patients became free from the tendency to form edema within two or three days. In this type of case, the sudden removal of a previously existing backward pressure on the alveolar capillaries is apparently followed by an increased permeability. When the backward pressure is again applied and then gradually lowered, the leakage of serum is stopped.

Methods of Administration

The question of dosage in oxygen therapy has received less consideration than it deserves. Physiologically it may be argued that a concentration of oxygen in the inspired air which is capable of relieving the anoxemia is indicated. Because of the technical difficulties of determining the oxygen saturation of the arterial blood and because clinical indications are not sufficiently accurate, the custom of giving between forty and sixty per cent oxygen has developed. Evans⁴⁶ has called attention to the fact that the administration of forty per cent oxygen did not raise the arterial oxygen saturation to the normal level in a large number of cases in earlier reports of the author and suggested the inhalation of one hundred per cent oxygen to patients with pneumonia. Extensive experimental investigation in animals has shown that very rich oxygen mixtures, between eighty and one hundred per cent, produce irritant inflammatory lesions in the lung when used continuously for two to five days.⁴⁷ However, oxygen concentrations under seventy per cent have no such influence. The author has kept adult and infant rabbits continuously in a concentration of sixty per cent oxygen for three months without apparent harm.

In most instances, the employment of fifty per cent oxygen in a tent, chamber or with the use of the double nasal catheter or oropharyngeal catheter is sufficient to overcome the anoxemia present. However, there are patients with acute cardiac insufficiency in whom the increased

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thor described a large and small oxygen face tent made of transparent plastocoele which fit over the bridge of the nose and may easily be molded to the conformation of the patient's face.⁶⁸ Oxygen concentrations in the inspired air between forty and sixty per cent may be obtained at a flow between five and ten liters per minute. The simplicity, effectiveness, and inexpensiveness of this oxygen face tent are its chief advantages. In clinical practice, many patients have found it more comfortable than the nasal catheter. Although it does not provide the cool, dry atmosphere of a well-ventilated oxygen tent, the oxygen concentration secured is as great and often higher than that obtained in the oxygen tent at comparable rates of oxygen administration.

The administration of helium with oxygen instituted the development of apparatus in which all inward leaks had to be rigidly excluded. This required a closed circuit apparatus with the use of soda lime and also provision for administering the mixture under slightly increased positive pressure. A mouthpiece or mask rebreathing apparatus has been employed for short periods of administration. Two types will be presently described in detail. They may be used for the administration of oxygen under positive pressure. For more continuous use, a hood has been devised which marks closure at the neck. This type of neck closure was suggested by Benedict's helmet apparatus for measuring gaseous metabolism.⁶⁹

In all these methods it is of importance that inward leaks be prevented or rapidly repaired when found. Pressure of one to five cm of water is frequently advantageous, although two or three cm pressure is ordinarily used. A detailed description follows.*

Helium-Oxygen Rebreathing Apparatus With Positive Pressure

The apparatus is suggested for its small requirement of gas. A flow of two liters per minute of the helium-oxygen mixture

is sufficient to maintain a constant percentage of the respective gases in the circuit. The carbon dioxide eliminated by the patient is absorbed by the soda lime in circuit.

The 6,000 r.p.m. motor permits adequate circulation with no resistance, and in addition is capable of delivering the gases in circuit at any pressure desired. A pressure control valve and rheostat give accurate control of pressure in expiration and inspiration.

With the by-pass valve, nitrogen in the patient's lungs can be eliminated in the open air and not into the gas circuit where it would dilute the helium mixture. The mouthpiece valve traps the gases in machine when the latter is not in use and in this way large quantities of the gas are not wasted.

The entire mechanism is enclosed in an acoustical lined box to protect the various parts and deaden the noise of the high speed motor.

The mask attachment is used when the mouthpiece is found trying to the patient. For longer periods, the hood tent can be used, the atmosphere passing through an ice can before entering the hood. (Fig 1-2)

TO PREPARE APPARATUS FOR USE

- 1 Open pressure valve D full (counterclockwise), turn by-pass valve E into circuit (handle horizontal), open mouth piece valve G to air (handle horizontal)
- 2 Fill bag with gas mixture through inlet A, turn on motor (rheostat to highest speed), cap hand over outlet on mouthpiece valve G, and turn handle to vertical position. Allow to run this way for one-half minute and then turn handle on by-pass valve E to vertical position till bag empties. After bag is empty, turn valve handles of E and G horizontal, and stop motor
- 3 Repeat No 2 above, two times

TO ADMINISTER GAS

- 1 After filling bag for third time, regulate flow of gas (see below)
- 2 By-pass valve E (handle vertical), clamp patient's nose, and put mouthpiece in his mouth. Turn handle of mouthpiece valve (G) to vertical position
- 3 Allow patient to take eight to ten breaths, then turn by-pass valve (E) handle to horizontal position, and turn motor on to full speed
- 4 Regulate pressure as follows for pressures higher than two cm turn motor on full and regulate pressure with pressure valve (D), for pressures less than two

* The apparatus outlined in this article may all be made by following the descriptions in the text. Manufacturing concerns interested in the equipment are The Oxygen Therapy Service, 247 East 86th St., N. Y. C., the J. H. Emerson Co., 22 Cottage Park Ave., Cambridge Mass., and W. E. Collins, 555 Huntington Ave., Boston, Mass.

to forty per cent. This type of chamber appears as an ordinary hospital room and is therefore less apt to create apprehension in a nervous patient.

The oxygen is admitted from an adjoining room through a silencer, so that during operation there is no noise whatsoever. A concentration of fifty per cent oxygen is maintained by admitting 800 to 1000 cubic feet of oxygen a day, four to five 220 cubic foot tanks. Soda lime is not employed, since this intake of oxygen is sufficient to wash out the carbon dioxide given off by patient and nurse.

The principle of thermal circulation has also been applied to the oxygen tent.⁶⁶ Provided a ten degree drop in temperature below that of the outside air can be obtained, this type of tent may be employed. Our own preference is for a motor-driven oxygen tent, since a wide range of ventilation may be obtained with greater swiftness and accuracy.⁶⁷ Since several fires have been reported in oxygen tents, it is important to maintain the precaution of not admitting any inflammable object within the tent. The occurrence of fire cannot result from the motor blower unit, since the motor is in air and not within the oxygen atmosphere. An oxygen testing board should be part of the equipment of the tent, for it is important to test the oxygen concentration two or three times daily in order to be certain that the patient is receiving the oxygen concentration prescribed.

The open box method of administering oxygen was developed by Burgess.⁶⁸ The oxygen concentration is maintained at a satisfactory level at the lower part of the tent, where it is closed off, at the upper part of the hood the concentration diminishes as it is exposed to the outside air. This method appears to have special advantages for infants and children, although it has also been used for adults. Caution must be exercised not to place it near an open window or a strong draft, as the oxygen would thereby be quickly washed out. It has the advantage of simplicity and inexpensiveness, although the control of temperature and humidity is not as effective as it is in a motor-driven tent. A modification of the box method has been recently devised for giving ninety-five per cent oxygen.⁶⁸

A nasal catheter may be employed in

the nasopharynx either as a single or a double tube. According to this technique,⁶⁹ the catheter is passed into the nostril until the tube just touches the posterior pharyngeal wall, it is then withdrawn slightly so that the irritating effect of this contact is removed. The terminal one inch of the catheter, generally #10 or #12 French, should be perforated with small holes so that a single stream of oxygen does not impinge on the mucous membrane. With the double nasal catheter a flow of five liters per minute will result in an oxygen concentration in the inspired air between thirty-seven and forty per cent, with the use of eight liters per minute oxygen concentrations between forty-two and forty-four per cent may result. Waters and Wineland⁶⁰ report still higher oxygen concentrations when the catheter is placed in the oral pharynx opposite the uvula. These results vary somewhat with the rate of respiration, being lower at slower respiratory rates.⁶¹ A catheter carrier is described by Marriott and Robson.⁶² This consists of an adaptation of a laryngologist's head mirror strap which hold a metal cannula in place to which is attached soft rubber catheters. Bullowa prefers a metal nasal inhaler which fits just inside the nostrils, although in our experience concentrations of oxygen lower than those obtained by a double nasal catheter, result at similar rates of flow.⁶³ Poulton and Adams describe higher concentrations in the oxygen tent than those obtained by nasal catheters at similar rates of flow.⁶⁴ Our preference is also for the oxygen tent provided that it is skillfully administered and the oxygen concentration of the atmospheric air frequently tested. But it must not be lost sight of that the nasal catheter is itself an effective method which is capable of widespread usefulness.

Campbell⁶⁵ has described a box mask enclosing the face and neck which consists of an aluminum cardboard frame to which linen is attached. The latter moistened with water tends to cool the apparatus. In a similar device developed by Taylor,⁶⁶ oxygen and air are first passed through a refrigerating cabinet. A manufacturer, Lombard,⁶⁷ has advertised an inhaler which covers the nose and mouth. In a recent communication the au-

thor described a large and small oxygen face tent made of transparent plastocoele which fit over the bridge of the nose and may easily be molded to the conformation of the patient's face⁶⁸. Oxygen concentrations in the inspired air between forty and sixty per cent may be obtained at a flow between five and ten liters per minute. The simplicity, effectiveness, and inexpensiveness of this oxygen face tent are its chief advantages. In clinical practice, many patients have found it more comfortable than the nasal catheter. Although it does not provide the cool, dry atmosphere of a well-ventilated oxygen tent, the oxygen concentration secured is as great and often higher than that obtained in the oxygen tent at comparable rates of oxygen administration.

The administration of helium with oxygen instituted the development of apparatus in which all inward leaks had to be rigidly excluded. This required a closed circuit apparatus with the use of soda lime and also provision for administering the mixture under slightly increased positive pressure. A mouthpiece or mask rebreathing apparatus has been employed for short periods of administration. Two types will be presently described in detail. They may be used for the administration of oxygen under positive pressure. For more continuous use, a hood has been devised which marks closure at the neck. This type of neck closure was suggested by Benedict's helmet apparatus for measuring gaseous metabolism.⁶⁹

In all these methods it is of importance that inward leaks be prevented or rapidly repaired when found. Pressure of one to five cm. of water is frequently advantageous, although two or three cm. pressure is ordinarily used. A detailed description follows.*

Helium-Oxygen Rebreathing Apparatus With Positive Pressure

The apparatus is suggested for its small requirement of gas. A flow of two liters per minute of the helium-oxygen mixture

is sufficient to maintain a constant percentage of the respective gases in the circuit. The carbon dioxide eliminated by the patient is absorbed by the soda lime in circuit.

The 6,000 r.p.m. motor permits adequate circulation with no resistance, and in addition is capable of delivering the gases in circuit at any pressure desired. A pressure control valve and rheostat give accurate control of pressure in expiration and inspiration.

With the by-pass valve, nitrogen in the patient's lungs can be eliminated in the open air and not into the gas circuit where it would dilute the helium mixture. The mouthpiece valve traps the gases in machine when the latter is not in use and in this way large quantities of the gas are not wasted.

The entire mechanism is enclosed in an acoustical lined box to protect the various parts and deaden the noise of the high speed motor.

The mask attachment is used when the mouthpiece is found trying to the patient. For longer periods, the hood tent can be used, the atmosphere passing through an ice can before entering the hood (Fig 1-2).

TO PREPARE APPARATUS FOR USE

- 1 Open pressure valve D full (counter-clockwise), turn by-pass valve E into circuit (handle horizontal), open mouth piece valve G to air (handle horizontal).

- 2 Fill bag with gas mixture through inlet A, turn on motor (rheostat to highest speed), cap hand over outlet on mouthpiece valve G, and turn handle to vertical position. Allow to run this way for one-half minute and then turn handle on by-pass valve E to vertical position till bag empties. After bag is empty, turn valve handles of E and G horizontal, and stop motor.

- 3 Repeat No 2 above, two times

TO ADMINISTER GAS

- 1 After filling bag for third time, regulate flow of gas (see below).

- 2 By-pass valve E (handle vertical), clamp patient's nose, and put mouthpiece in his mouth. Turn handle of mouthpiece valve (G) to vertical position.

- 3 Allow patient to take eight to ten breaths, then turn by-pass valve (E) handle to horizontal position, and turn motor on to full speed.

- 4 Regulate pressure as follows for pressures higher than two cm. turn motor on full and regulate pressure with pressure valve (D), for pressures less than two

* The apparatus outlined in this article may all be made by following the descriptions in the text. Manufacturing concerns interested in the equipment are The Oxygen Therapy Service, 247 East 56th St., N. Y. C.; the J. H. Emerson Co., 22 Cottage Park Ave., Cambridge Mass.; and W. E. Collins, 555 Huntington Ave., Boston, Mass.

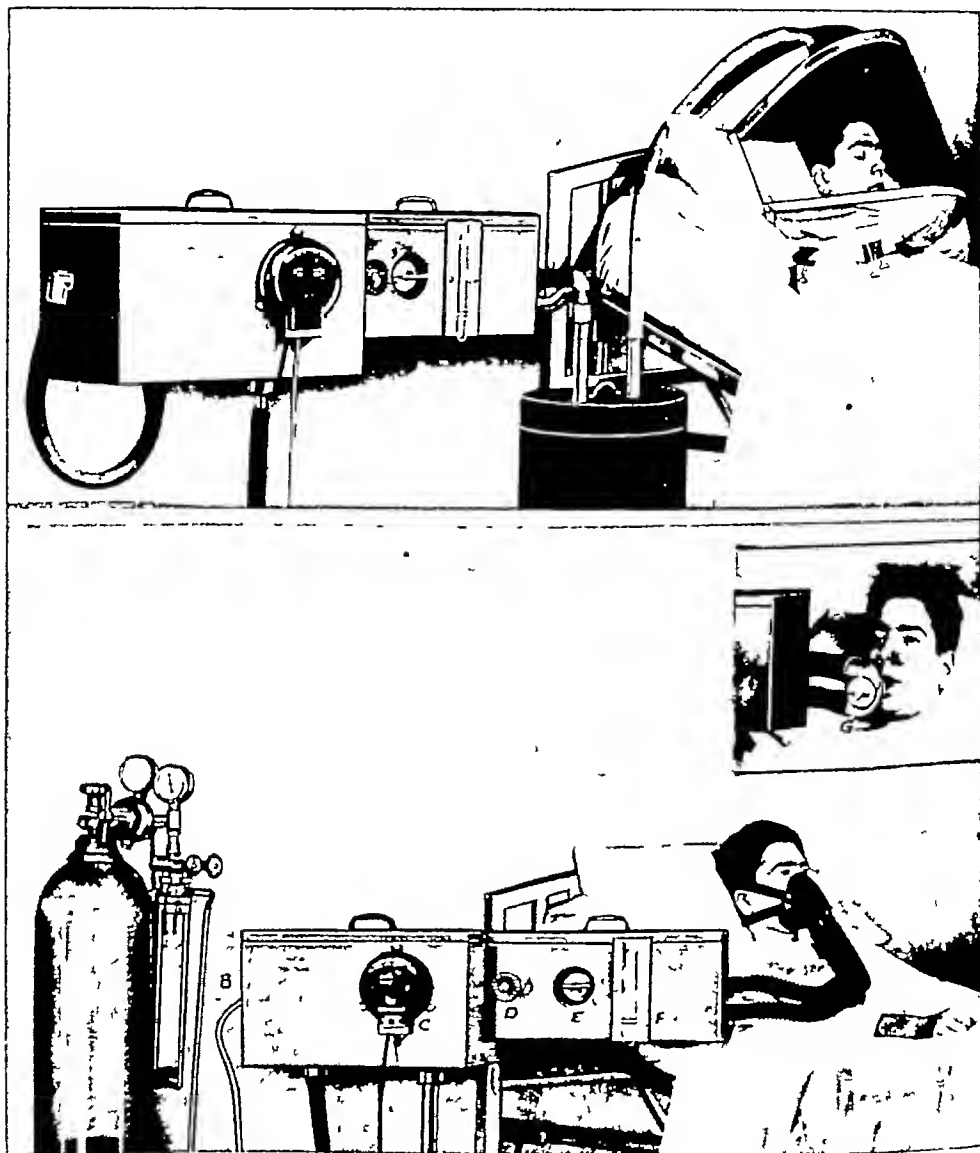


Fig 1 and 2

cm open pressure valve D as wide as possible, and slow motor with rheostat till desired pressure is obtained. Pressure is read on manometer F.

TO REGULATE GAS FLOW

1 In filling bag run gas mixture as rapidly as gauge will allow.

2 The gas mixture should be run at two liters per minute constantly while the patient is using the machine. In addition a flow of oxygen equal to the oxygen consumption of the patient is added.

3 If the patient is not holding the mouthpiece tightly, leakage will occur with the

consequent emptying of the bag. An increased flow will be found necessary.

TO USE MASK

1 Disconnect mouthpiece valve and connect in its place the two lengths of non-kinkable tubing attached to the outlets of the mask.

2 Use clamp on inlet tube of mask in place of mouthpiece valve.

3 Proceed as above.

PRECAUTIONS

1 It is imperative that no nitrogen be allowed to get into the circuit at any time. Small quantities of nitrogen tend to vitiate results.

2. If patient wishes to get off the apparatus for any reason, turn handle of mouthpiece valve G to horizontal position, and stop motor. Remove patient. Do not stop flow of gas into the inlet A unless patient will stay off machine for more than two or three minutes. To replace patient on machine, proceed as above.

3. At end of treatment, shut off gas supply from tank, and be certain that handle of mouthpiece valve G is in horizontal position, so that gases in apparatus will not escape.

4. If the apparatus stands idle for an interval of two to three hours after a treatment, it is not necessary to again purge the circuit. If the apparatus stands idle overnight, it is wise procedure to purge it before use.

5. From time to time while apparatus is in use, the bag will fill to capacity. It should be emptied half way by turning by-pass valve E to vertical position for a few seconds. The gas flow, motor, etc., need not be touched during this operation.

6. The soda lime should be changed after ten hours of use.

Pressure Head Tent

DIRECTIONS FOR ASSEMBLY OF APPARATUS

1. Disconnect bag B from helium rebreather and connect the inlet and outlet tubes of the apparatus which were formerly connected with the bag with a length of rubber tubing.

2. Disconnect mouthpiece valve G. The two tubes (suction and pressure) leading from the rebreather are connected to the cooler and hood as follows:

a. The suction tube is connected directly to the hood.

b. The pressure tube is connected to one arm of the cooling system. The other arm of the cooling system is then connected to the hood.

DIRECTIONS FOR OPERATION

1. Turn on the motor of the unit, open one sleeve of the hood, and place hood over patient's head. See that the rubber collar fits tightly around the neck.

2. Rapidly purge oxygen with a needle valve into the apparatus through petcock A until all the air is washed out (300 liters usually suffice).

3. Add the helium-oxygen mixture at fifteen liters per minute until the gas mixture desired is obtained. Shut the open sleeve of the hood and regulate flow of the helium-oxygen mixture to two liters per minute. Add 200 to 400 c.c. of oxygen per minute to provide for the oxygen consumption of the patient.

4. Immerse pressure control tube into the water bottle to a depth equal to the pressure desired for the patient.

Small Apparatus for Administration of Helium and Oxygen in Treatment of Asthma

A small flow of gas is necessary to run this apparatus, two liters per minute of the helium-oxygen mixture being sufficient.

The expiratory pressure is easily controlled by addition or removal of water from the water bottle. Although the simplicity and inexpensiveness of this small apparatus are valuable, the helium-oxygen rebreather is to be preferred because it is more effective (Fig 3-4).

For Administration of Helium-Oxygen Mixtures with Small Apparatus

1. Immerse pressure tube B to a depth equal to the desired expiratory pressure (Fig 3).

2. Close off inlet G and run gas mixture in through inlet K.

3. Pinch neck of bag J and fill with gas mixture. Start patient breathing from mouthpiece E and release neck of bag. Clip patient's nose. Run gas into K at rate of ten to fifteen liters per minute for three minutes.

4. Reduce flow of helium-oxygen mixture to two liters per minute and add a flow of oxygen equal to the oxygen consumption of the patient.

5. Change soda lime in CO₂ filter after four hours of use.

Directions for Use of Helium Water Bottle

Fill bottle with water to mark W on scale (Fig 4).

Hook up gauge, needle valve and water bottle to tank as shown.

Turn handle D on gauge counterclockwise till it comes out of gauge. Close needle valve E (handle turned clockwise).

Open tank valve A—contents of tank will be recorded on gauge B.

Replace handle D of valve and turn clockwise till pressure of five lbs registers on gauge C.

Turn handle of needle valve E counterclockwise till float in water bottle registers desired flow.

This apparatus is calibrated for a twenty-one per cent oxygen-seventy-nine per cent helium mixture, and corrected to 0° C, and 760 mm mercury pressure. It will not record accurately for any other gas mixture.

The water level in gauge must be kept at mark W at all times

General Considerations

The purpose of inhalational therapy may be stated in general as the relief of dyspnea, viewing dyspnea both as a subjective sensation and an objective pathological process. The bearing of the results of inhalational therapy in the various conditions reviewed above may be briefly discussed. The primary objective of this type of treatment must be mainly thought of as an attempt to provide an adequate tension of oxygen in the tissues and to remove the carbon dioxide formed in them as the result of oxidation. Emphasis has recently been put on the proprioceptive reflexes emanating from the lungs and the chest wall as the cause of cardiac dyspnea.⁷⁰ Although it can be readily admitted that the sensation of air hunger is aroused intracerebrally from nerve impulses traversing the Hering-Breuer arcs and related nerve pathways, the objective pathological process of labored breathing is closely dependent on chemical factors involved in gas exchange. In studies of Richards and the author, a prompt diminution of both the volume of the pulmonary ventilation and the effort employed in breathing take place in patients with congestive heart failure after inhalation of high oxygen atmospheres. In our opinion, there is, therefore, a

very significant relation between the chemical factors which are operating and the cause of dyspnea. The interpretation of cardiac dyspnea on the basis of disturbed proprioceptive pulmonary reflexes limits itself simply to an explanation of the sensation and does not aid a therapeutic or physiological recognition of cardiac dyspnea.

The absence of alkalosis in congestive heart failure is indicative of a volume of pulmonary ventilation designed to accomplish as nearly normal a gas exchange as possible and evidence against a reflex stimulation of respiration as the predominating cause of cardiac dyspnea. In pneumonia a compensated alkalosis is sometimes found, in which case local reflex stimulation may play a part in addition to oxygen-want. It is, however, in obstructive dyspnea that proprioceptive reflexes have a more profound physiological significance. When there is constriction of any part of the passageway between the pharynx and the lungs, an increased effort is required to provide the accustomed pulmonary ventilation. In this type of dyspnea the inhalation of one hundred per cent oxygen modifies the dyspnea only to a slight extent unless pathological changes have taken place in the lungs. As the result of the use of helium, at times with oxygen concentrations which are less than those in the atmosphere, the relief of dyspnea has been shown to be

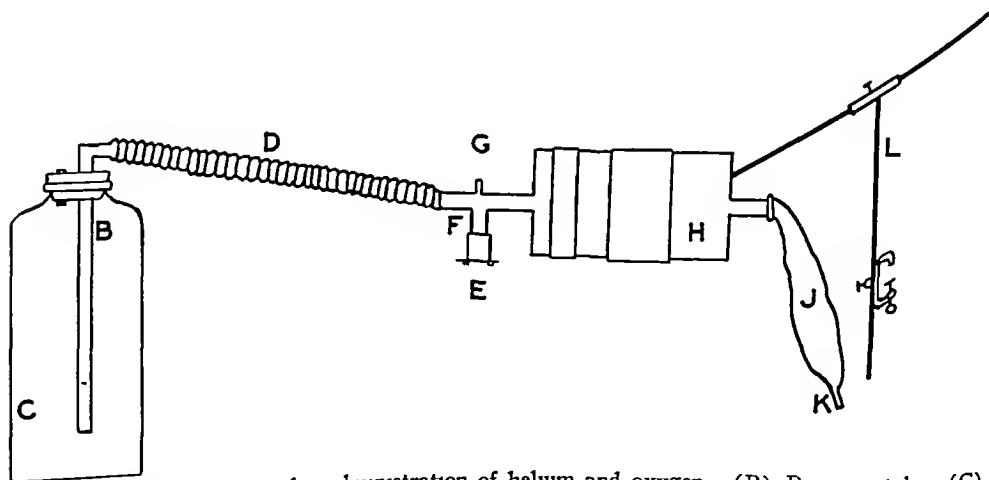


Fig 3 Small apparatus for administration of helium and oxygen. (B) Pressure tube, (C) Water bottle, (D) Non-kinkable tubing, (E) Mouthpiece, (F) Mouthpiece holder, (G) Gas inlet, (H) CO₂ filter, (J) Gas bag, (K) Gas inlet, (L) Clamp support.

due to a decreased effort in providing an accustomed velocity of gas flow through the respiratory tubal system. It would therefore appear that the organism demands for its psychic comfort the preservation of an equilibrium which has to do with the speed of pulmonary ventilation independent of gaseous exchange.

The preventive and therapeutic action of positive pressure respiration in acute edema, in man and in animals, illustrates again the importance of mechanical or physical factors in the physiology of respiration. Whether or not the pulmonary capillaries filter serum through them into the alveolar spaces is dependent on the internal capillary pressure and the permeability of the vessel wall. An increase in internal capillary blood pressure of sufficient extent to cause edema in the alveoli may be compensated for by the application of an opposing pressure on the external capillary wall. A positive pressure of two to four mm Hg may be sufficient to achieve this object. These pressures may prolong the circulation time of blood through the lungs to a slight extent, but do not seriously interfere with the maintenance of an adequate circulation. It seems probable that the therapeutic use of positive pressure will be of value not only in the treatment of pulmonary edema but also in certain related conditions characterized by pulmonary congestion and it seems also altogether likely that non-arterial pulmonary hemorrhage may be controlled in some instances.

Inhalational therapy has gone within the past two decades from a more or less uncontrolled haphazard administration of oxygen employed generally as a measure of last resort to a specialty of medicine which has as its purpose the management of functional disturbances in respiration. The future of this branch of medicine depends upon the recognition that the pathological physiology of clinical disorders in breathing should be given the fullest study in the individual case. The practice of relegating oxygen therapy to technicians or to nurses tends to defeat this aim. Our purpose in this paper is to present the widening field of inhalational therapy as a subject properly of interest to the clinician and no longer one that is justifiably segregated

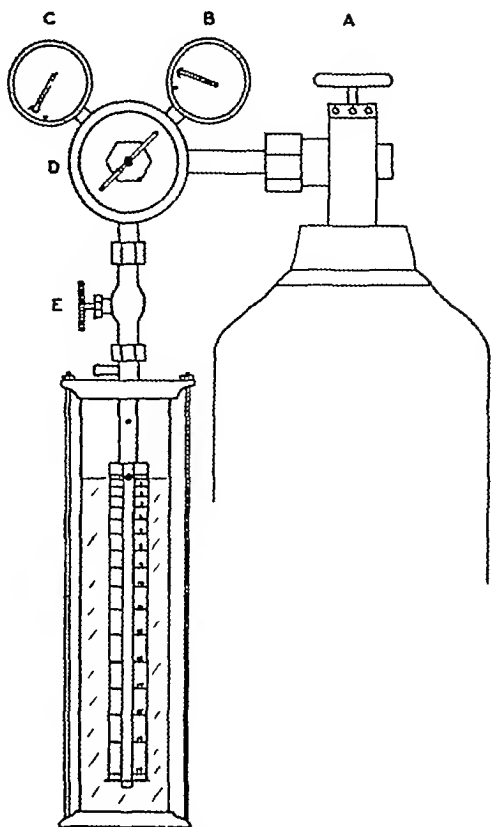


Fig 4 Helium oxygen water bottle.

within the province of the physiologist on the one hand or the technician on the other.

Summary

The physiological basis and the clinical results of oxygen therapy in pneumonia, congestive heart failure, acute coronary thrombosis, and pulmonary emphysema and fibrosis have been reviewed. More recent observations on the use of helium with oxygen in asthma and obstructive conditions of the respiratory tract are presented. Mention is made of the addition of positive pressure to inhalational therapy, particularly in the treatment of edema of the lungs and obstructive dyspnea.

The methods employed in inhalational therapy are discussed and a detailed account given of the newer procedures involved in helium oxygen therapy, oxygen therapy, and positive pressure respiration.

The application of physiological studies of respiration to the practice of clinical

medicine is discussed. It has become increasingly important for the clinician to view the pathological physiology of disorders of the heart and lungs from the standpoint of disturbance in their function as well as morphology. In order that the patient may receive physi-

ologically as well as etiologically directed therapy, it would seem justifiable to ask that this branch of medicine be neither segregated with the province of the physiologist, in theory, or restricted to the technician or nurse, in practice.

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References

- 1 Haldane, J S *Recent Developments in the Therapeutic Use of Oxygen. Contributions to Medical and Biological Research Dedicated to Sir William Osler* 1919
- 2 Barcroft, J, Cook, A, Hartridge, H, Parsons, T R, and Parsons, W *J Physiol* 53 450, 1920
- 3 Hurter *Deutsch Arch. f klin Med*, 108 1, 1912
- 4 Stadie, W C *J Exp Med*, 30 215, 1919
- 5 (a) Van Slyke, D D *J Biol Chem*, 33 127, 1918 and 33 337, 1922 (b) Haldane, J S *J Path and Bacteriol*, 23 443, 1920
- 6 (a) Meakins, J C *J Path and Bacteriol*, 24 87, 1921 (b) Stadie, W C *J Exp Med*, 35 337, 1922 (c) Barach, A L and Woodwell, Margaret N *Arch Int Med*, 28 294, 1921
- 7 Barach, A L and Woodwell, Margaret N *Arch Int Med*, 28 367, 1921
- 8 Binger, Carl A L N Y STATE J MED, 25 953, 1925 and *J Clin Invest*, 6 203, 1928
- 9 Stadie, W C *J Exp Med*, 35 337, 1922
- 10 Barach, A L N Y STATE J MED, 29 985, 1929
- 11 Idem *J.A.M.A.*, 89 1865, 1927
- 12 Campbell, A L and Poulton, E P *Oxygen and Carbon Dioxide Therapy*, p 66, Oxford Univ Press, London 1924
- 13 (a) Boothby, W M and Haines, S F *J.A.M.A.*, 90 372, 1928 (b) Haines, S F and Boothby, W M *Am. J Surg*, 6 1, 1929 also 7 174, 1929
- 14 Moersch, H J and Boothby, W M *Arch Int Laryng*, 6 542, 1927
- 15 (a) Binger, M W, Judd, E S, Moore, A B, and Wilder, R M *Arch Surg*, 17 1047, 1928 (b) Judd, E S Quoted from Boothby, W M, *J.A.M.A.*, 99 2026, 1932
- 16 Barach, A L N Y STATE J MED, 34 41, 1934
- 17 Boothby, W M *J.A.M.A.*, 99 2026 and 2106, 1932
- 18 Barach, A L *Ibid*, 107 1273, 1936
- 19 Hastings, A B, Neill, J M, Morgan, H J, and Binger, C A L *J Clin Invest*, 1 25, 1924
- 20 (a) Means, J H and Barach, A L *J.A.M.A.*, 77 1217, 1921 (b) Barach, A L, Means, J H and Woodwell, M N *J Biol Chem*, 1 413, 1922
- 21 (a) Meakins, J C and Davies, H W *Respiratory Function in Disease*, p 236 Oliver and Boyd, London, 1925 (b) Meakins, J C *Practice of Medicine*
- 22 Barach, A L and Richards, D W *Arch Int Med*, 48 325, 1931
- 23 Henderson, Y, Haggard, H W, Coryllos, P N, and Birnbaum, G L *Ibid*, 45 72, 1930
- 24 Davis, J S *J Clin Invest*, 6 187, 1928
- 25 Binger, C A L, Hastings, A B, and Neill, J M *Arch Int Med*, 31 145, 1923
- 26 Atchley, D W *J.A.M.A.* 95 385, 1930
- 27 (a) Barach, A L, Richards, D W, Milborat, A T, and Levy, R L *Proc Soc Exp Biol and Med*, 27 308, 1929 (b) Barach, A L, and Richards, D W *Arch Int Med*, 48 325, 1931 (c) Barach, A L *Ann. Int Med* 5 428, 1931 (d) Barach, A L N Y STATE J MED, 34 672, 1934 (e) Richards, D W and Barach, A L *Quart J Med*, 11 437, 1934
- 28 (a) Riger, R I *Minnesota Med*, 12 506, 1929 (b) Levy, R L and Barach, A L *J.A.M.A.*, 96 1363, 1930 (c) Ulrich, H L *Minnesota Med*, 15 513, 1932 (d) Barach, A L and Levy, R L *J.A.M.A.*, 103 1690, 1934 (e) Burgess, A M and Chaffer, F H *New Eng J M*, 216 203, 1937 (f) Kilgore, E S *J.A.M.A.* 100 315, 1933
- 29 (a) Meakins, J C *Ann Int Med* 6 506, 1932 (b) Katz, L N Kerridge P T and Long, C N H *Proc Roy Soc, Series B*, 99 26, 1925-26,
- 30 Campbell, J M H and Poulton, E P *Quart J Med*, Oxford, 20 141, 1927
- 31 (a) Barach, A L and Richards, D W *Amer Rev of Tuberc*, 26 241, 1932 (b) Richards, D W and Barach, A L *Ibid*, 26 253, 1932
- 32 (a) Barach, A L *Proc Soc Exp Biol and Med*, 32 462, 1934, *Anesth. and Anal.*, 14 210, 1935, *J Clin Invest*, 15 47, 1936, *Ann. Int Med*, 9 739, 1935, *J.A.M.A.*, 107 1273, 1936
- 33 Maytum, C K, Prickman, L E. and Boothby, W M *Proc Staff Meet, Mayo Clin*, 10 785, 1935
- 34 Moore, R L and Binger, C A L *J Exp Med*, 45 655, 1927 and 45 1065, 1927
- 35 Prinzmetal, Myron J *Allergy*, 5 493, 1934
- 36 Barach, A L *J.A.M.A.*, 107 1273, 1936
- 37 Barach, A L and Kernan, J D *Role of Helium in Obstructive Lesions of the Trachea and Larynx* (To be published.)
- 38 Welch, W H *Virchow's Archiv*, March 1878.
- 39 Emerson, Haven *Arch Int Med*, 3 368, 1909
- 40 Norton, N R *Med and Surg Report of the Presbyterian Hosp*, 3 231, 1897
- 41 Northrup, W P *Ibid*, 1 127, 1896
- 42 Poulton, E P *Lancet*, 231 983, 1936
- 43 Plesch, J *Zets f klin Med*, 123 208, 1933
- 44 (a) Barach, A L *Ann Int Med*, 9 739, 1935 (b) Barach, A L, Martin, John D and Eckman, M. *Proc Amer Soc for Clin Invest* 1936, also May 3, 1937
- 45 Woodman, M *J Larynx and Otol*, 1 214, 1935
- 46 (a) Evans, J H and Dursordive, C J *Amer and Anal*, 11 193, 1932 (b) Evans J H. *Bull Med Soc Acad of Med, County of Erie and Buffalo*, June 1928
- 47 (a) Bert, Paul *LaPression Barometrique*, G Masson, Paris 1878 *J Physiol* 24 19 1899 (b) Karsner H T *Jour Exper Med*, 23 19, 1916 (c) Barach, A L *Am Rev Tuberc*, 13 293, 1926 (d) Binger, C A L, Faulkner, J M and Moore, R L *J Jour Exper Med*, 45 849, 1927
- 48 Sayer, R R Personal communication
- 49 Fine, J, Hanks, B M, Sears, J B and Hermanson, L *Ann Surg*, 103 375, 1936
- 50 Barach, A L, Richards, D W and Parsons, W B *Ann Int Med*, 9 1513, 1936
- 51 Stadie, W C *J Exper Med*, 35 323, 1922
- 52 Barcroft, J, Hunt, G H, Dufton, G *Quart J Med*, 13 179, 1919-20
- 53 Campbell, J M H and Poulton, E P *Quart J Med*, Oxford, 20 141, 1927
- 54 Binger, C A L *Mod Hosp*, 24 186, 1925
- 55 Barach, A L *J Clin Invest*, 1926, *Mod Hospital* 1929 *J.A.M.A.*, 97 390, 1931
- 56 Taylor, T A and Taylor, W H *Int J Med and Surg* 46 596, 1933
- 57 Barach, A L N Y STATE J MED, 31 1263, 1931
- 58 Burgess, A M and Burgess, A M, Jr *New Eng J Med*, 207 1078, 1932
- 59 Barach, A L *J.A.M.A.*, 93 1550, 1929
- 60 Waters, R M and Wineland, A J *Arch of Surg* 22 67, 1931
- 61 Barker, M H Parker, D M and Wassel, G *J.A.M.A.*, 103 244, 1934
- 62 Marriott, H L and Robson, K. *Brit Med J*, 1 155, 1936
- 63 Bullowa, Jesse Personal communication.
- 64 Poulton, E P and Adams, T W *Brit Med J*, 1 567, 1936
- 65 Campbell J A. *Modern Hospital*, 1936
- 66 Taylor T A Personal communication
- 67 Lombard, C F Personal communication as advertising letter
- 68 Barach A L *J.A.M.A.*, 1937
- 69 Benedict, F G *New England J Med*, 203 150, 1930
- 70 Harrison T R *Failure of the Circulation*, Williams & Wilkins Co, Baltimore 1935

MUSCULAR DYSTROPHY

Report of a Family

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The subject of muscular dystrophy is of neurologic interest, because of the insidiousness of the onset with motor manifestations, the indefinite etiology, the progressive nature, pathology, clinical course, and the chronicity of the disease. Furthermore it is one of the very few organic conditions which show a marked heredofamilial tendency.

In 1830, Charles Bell¹ described progressive muscular atrophy. Semma in 1834 and Costa and Gioga in 1836, recognized and described the syndrome, now known as progressive muscular dystrophy. In 1849, Aran and Duchenne described the fatty pseudohypertrophies and placed this condition as a nosological entity. Duchenne,² in 1868, believed this to be a disease primarily of the muscles, and called it a myosclerosis. Cruveilhier thought the pathology of the disease was primarily in the spinal cord, and Charcot agreed with him. Erb,³ in 1883, suggested the name *Dystrophia Musculorum Progressiva*, and declared that there were two distinct types of progressive muscular atrophy, a spinal atrophic form, and a muscular dystrophic form, differing greatly in localization, syndrome, and evolution. Landouzy and Dejerine,⁴ in 1885, described a form, known as the *Facio-Scapulo-Humeral* type. The two latter types begin with and preponderantly involve the muscles of the shoulder and upper arm, and to a lesser extent the face. The forms which affect the muscles of the pelvic girdle and thigh are atrophic (*Leyden-Moebius*) and the pseudohypertrophies (*Duchenne-Griesinger*). There is some controversy as to whether the Charcot Marie-Tooth type of peroneal atrophy, is a true primary myopathy. Gowers⁵ and Spiller also described a distal type. Most of these types are not sharply demarcated, but overlap, and so we find transitional as well as mixed forms.

Etiology

This disease may occur sporadically or in families.⁶ Voshell,⁷ in 1933, after reporting twenty cases of progressive pseudohypertrophic muscular dystrophy, stated that the age of onset is between two and eight years, with the average at four, and he was of the belief that only the white race is affected. At this time, one of us (A) has under treatment an eleven year old colored school girl, who not only has the classic objective findings of this disease, but very definitely shows polyglandular involvement in general and hyperpituitarism in particular. Pearson⁸ has also described this condition in negro children.

Infectious diseases, overexertion, and trauma may be contributing causes or bring the patient's attention to his motor difficulty. Or, after a temporary arrest of the condition, these factors may cause further progression in the atrophies and pseudohypertrophic muscles.

Endocrine

Changes in the pineal gland producing shadows in roentgenograms, naturally suggested that the disease is due to a disturbance in the internal secretions of the endocrine system. Janney, Goodhart, and Isaacson¹¹ sought to establish a causal relationship between the endocrine dyscrasias and progressive muscular dystrophy. In their investigation, they found changes indicative of endocrinopathology, such as dryness and abnormal pigmentation of the skin, acromegalic features, brittleness of the hair, hypertrichosis, trophic changes in the nails, unusual distribution of the subcutaneous fat, regressive osseous changes, marked retardation of growth, hypoglycemia, delayed glucose utilization, and alterations in the creatin and creatinin output.

in the urine Brock and Kay¹² also found evidence of pluriglandular involvement in their study of this disease

Chemistry

McCrudden,^{9 10} after blood chemistry studies in progressive muscular dystrophy, concludes that the myasthenia is due to a hypoglycemia, that the hypoglycemia and fatty infiltrations are due to impaired glycogenesis, the carbohydrate of the food being probably changed largely to fat instead of glycogen, and that this impaired glycogenesis is the result of adrenal and other endocrine disease

Nevin¹³ studied the chemistry of the skeletal muscles in pseudohypertrophic muscular dystrophy and found low total acid-soluble phosphorus, low creatine phosphoric acid content of resting muscle, and less than normal break down of this substance on stimulation. He considered this alteration as secondary to the muscular degeneration. With reference to muscle metabolism, Tripoli and Beard¹⁴ are of the opinion that in patients with muscular dystrophy, not enough protein is ingested and that which is taken in is not utilized sufficiently. Further, that there is some dysfunction of protein digestion which prevents proper utilization necessary for muscular functions

Heredity

The most likely and most important cause of this malady is probably rooted in the anlage, as shown by the heredo-familial occurrence. The disease is transmitted mainly through the mother to the next generation, although the mother may escape the affliction. Gowers,¹⁵ who reported 118 cases in thirty-nine families, claimed that the pseudohypertrophic type was always transmitted only through the mother, and especially so if it begins early in life. If the disease starts late in life, it can be transmitted by the father or mother. Boys are more often affected than girls (Gowers and others). Weitz¹⁶ reported thirty-five families, in which ninety-four cases occurred. Of these seventy-two were males and twenty-two females. 101 were healthy and free of any muscular involvement. He observed that in the directly

inherited cases, the disease is less severe than in the sporadic or isolated cases. He concluded that the inheritance takes place either in the dominant, simple recessive or sex-linked recessive form, and that many cases can be explained on the theory that new mutations have occurred. De Lisi,¹⁷ after a study of the Charcot-Marie-Tooth type, believed that this condition is transmitted in all forms, namely dominant, simple recessive, and sex-linked recessive. Robinson¹⁸ reported a family of five generations, from 1849-1925, and the records of the 128 children. Of these sixty-five were boys and sixty-three girls. The myopathy affected the shoulder girdle muscles almost exclusively. Neither the face nor lower extremities were involved. The children were sound at birth and during childhood. The age of onset was puberty, and a little earlier in the girls than in the boys.

Diehl, Hansen, and Ubisch¹⁹ believe that the disease is often transmitted by a healthy mother. Niwa,²⁰ in a study of three dystrophic families, found that in the Landouzy-Dejerine type, the transmission was direct through males and females, and indirect in the pseudohypertrophic type. This is in agreement with the findings of Davidenkow and Kryschowa,²¹ Eulenberg and Cohn.²² Barnes²³ is in accord with the evidence which shows that muscular dystrophy is determined at the birth of the ovum, and is derived as a factor or as factors inherited from one or both of the two gametes which form the zygote. In rare cases a new mutation may arise and be the cause of the condition in the individual developed from that zygote, and be transmitted to his descendants. He further believes that in those cases where bacterial infection, trauma, overwork, etc. are antecedent in the history, they are merely factors which determine the onset or accelerate the progress of the disease in an individual who is a potential myopathic. In other words, a genotype carrying the mutant gene or genes, and that apart from such underlying factors, it is probable that the muscular dystrophy can never arise. Kostakow²⁴ studied three generations of a family, comprising fifty-five persons. Forty-seven are living. Of these, twenty-seven are women

and twenty men. Fifteen developed muscular dystrophy, these were exclusively males. If the disease was inherited as a dominant character, transmission must have been from one of the parents directly to about one-half of the children, but this was not the case. Neither of the known original progenitors had the disease. The females acted only as transmitters. There were six females in the first generation and all transmitted the disease to eight of their male children. The seven females of the second generation transmitted the disease to six out of eight males of the third generation. No tendency for the disease to progress in severity in passing from one generation to the next, was observed. The children of the males who were healthy did not develop the disease in any of the three generations. This mode of inheritance is a sex-linked recessive type. It would seem, therefore, that it is much more dangerous for a healthy woman of a dystrophic family to marry, than for a man with the affliction.

Pathology

While Holmes,²⁵ Gil,²⁶ and other investigators, have described alterations in the anterior and lateral horn cells of the spinal cord, Erb, Duchenne, and Friedreich demonstrated definite pathologic localization within the affected muscle tissue *per se*. The lesions are essentially the same, no matter what the type. Microscopically, there is a hypertrophy and atrophy of the muscle fibers. The hypertrophy is the first stage and the atrophy the last stage. The individual muscle fibers waste. They become round instead of polygonal and eventually disappear, leaving the sarcolemma sheath and greatly increased nuclei. Finally, the muscle fibers disappear entirely and are replaced by fat and fibrous tissue. Many of the muscle fibers show fragmentation with an increase in the number of nuclei, other fibers show vacuolization. The striped formation of the muscle is preserved. The muscle degenerates in an irregular fashion i.e. atrophy, hypertrophy or pseudohypertrophy may occur simultaneously in the different parts of the same muscle. It is not inflammatory, but involves one bundle after the other. The

tendon reflex is diminished as the muscle volume diminishes, and in the later stages when the muscle is gone, the reflex is absent. As the muscle atrophies the tone in it diminishes. Motion is not lost completely, unless the entire muscle is gone. The power in the affected muscles is not proportional to the size of the muscle. In the pseudohypertrophic muscles, we note excessive interstitial fatty infiltrations.

It is of more than passing interest to ponder the reason for this disease affecting the trunkal muscles. The primary myopathies usually involve the red muscles, and they are found mostly near the trunk. Further, muscular dystrophy is primarily a disease of the sarcoplasmatic portion of the muscles, or that part which is innervated by the sympathetic nervous system. The fibrillar part of the muscle is innervated through the anterior horn cells.

The muscles usually affected in the Erb type, are the pectoralis major and minor, latissimus dorsi, serratus anticus, rhomboideus, trapezius, deltoid, biceps, triceps, and subscapularis. Less frequently involved are the sternocleidomastoid, infraspinatus, supraspinatus, levator scapulae, and coracobrachialis.

Friedman²⁷ described a case, portraying a combination of primary myopathy of the Erb type with progressive muscular atrophy of the Werdnig-Hoffman type. Steinberg²⁸ reported a case of progressive muscular dystrophy with a marked atrophy of both pectoralis major muscles.

Diagnosis

In any type, if the dystrophy is marked, it cannot be mistaken. Early, the Erb type presents a diagnostic problem. There are congenital cases of atrophy in the muscles of one shoulder, but seldom is it bilateral. Paralysis of the long thoracic nerve will involve the serratus magnus muscle and cause a winged scapula. This condition is usually due to trauma to the nerve, and is especially seen in porters, soldiers, and laborers. Sometimes it is a neuritic paralysis with pain in the shoulder. Sometimes no etiology is apparent. At other times we note this malady after an acute infectious disease, especially after typhoid, acute rheumatic

disease, and gonorrhea. The Landouzy-Dejerine type may be mistaken for the Erb and vice versa. However, the Landouzy-Dejerine variety usually is seen in early childhood, between thirteen and thirty-five, and commences in the face and spreads somewhat more rapidly to the muscles of the shoulder girdle and the upper arm. The patient has difficulty in whistling, speaking, and drinking. The lips are thin and the upper one projects, the so-called tapir mouth. When smiling the mouth elongates, but its corners are not raised (*risus sardonius*). Speech may be greatly interfered with but the muscles of mastication and deglutition are not affected. This serves to differentiate the disease from bulbar paralysis. Later, the atrophy extends to the shoulders and arms, but does not as a rule involve the supraspinatus, infraspinatus or the flexors of the hand or forearm. In the Erb type, the face muscles are not involved until late in the disease, if at all. Whatever groups of muscles may be the first affected, the differences are of degree and of type rather than of kind.

Course

The earlier the onset of the disease, the more rapid is the course.⁸⁰ The apparent halt or arrest of the pathologic

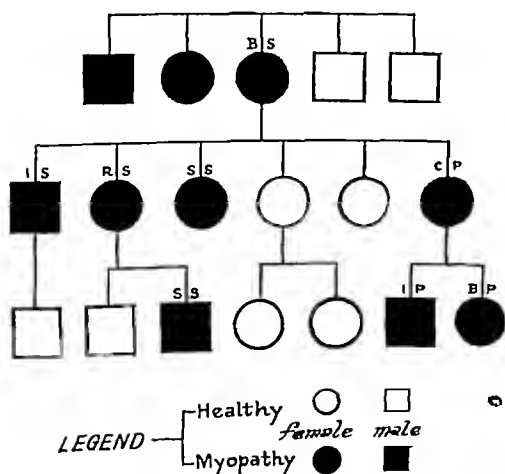


Fig 1 Genealogy of family as far as we have been able to ascertain it. The circles represent females and the squares, males. Those who showed no evidence of muscle involvement, by examination or from the history, are represented by blank squares or circles.

process in the muscles affected may occur for ten, fifteen, or thirty years, but the course is almost always progressive nonetheless. They usually die of intercurrent disease. Muscular dystrophy may be associated with hysteria, mental weakness, epilepsy, and congenital anomalies of bony structures.

Family Record

The records given here consist not only of history and objective findings of our own, but also include information supplied by members of the family concerning their parents and relatives, who are either deceased or who could not be contacted for examination. We have reason to believe that our informants are intelligent and reliable. In the main, for brevity, only positive findings are recorded. They were all of the Hebrew race and white.

B S, the maternal grandmother of our original case, was one of five children, who had an atrophy of the shoulder girdle muscles. She died of an intercurrent disease at the age of thirty-nine. This woman had a brother, whose lower extremities were atrophied to the extent that he could not walk and was bedridden for years, previous to his demise at the age of forty-four. Another sister was also unable to walk, due to involvement of the lower extremities. She died at the age of forty-two.

S S (Fig 2), a sixteen year old high school student, and the oldest of two children, first presented himself in the outpatient department of the Hospital for Joint Diseases on September 5, 1935, complaining of a weakness of both arms, of three years duration. He noted a progressive weakness, especially when attempting to raise both arms to the shoulder level. Also he was aware of the fact that his back became more prominent and his coat did not seem to fit as well as it formerly did. Examination revealed a well-nourished and developed boy, rather large for his age. Both shoulders drooped and there was a prominence of the scapular angles. When the patient was asked to abduct both arms or to extend them forward at shoulder level, both scapulae became winged. There was a definite atrophy of the shoulder muscles bilaterally, but more marked on the right. When the scapulae were held against the back, the patient was able to

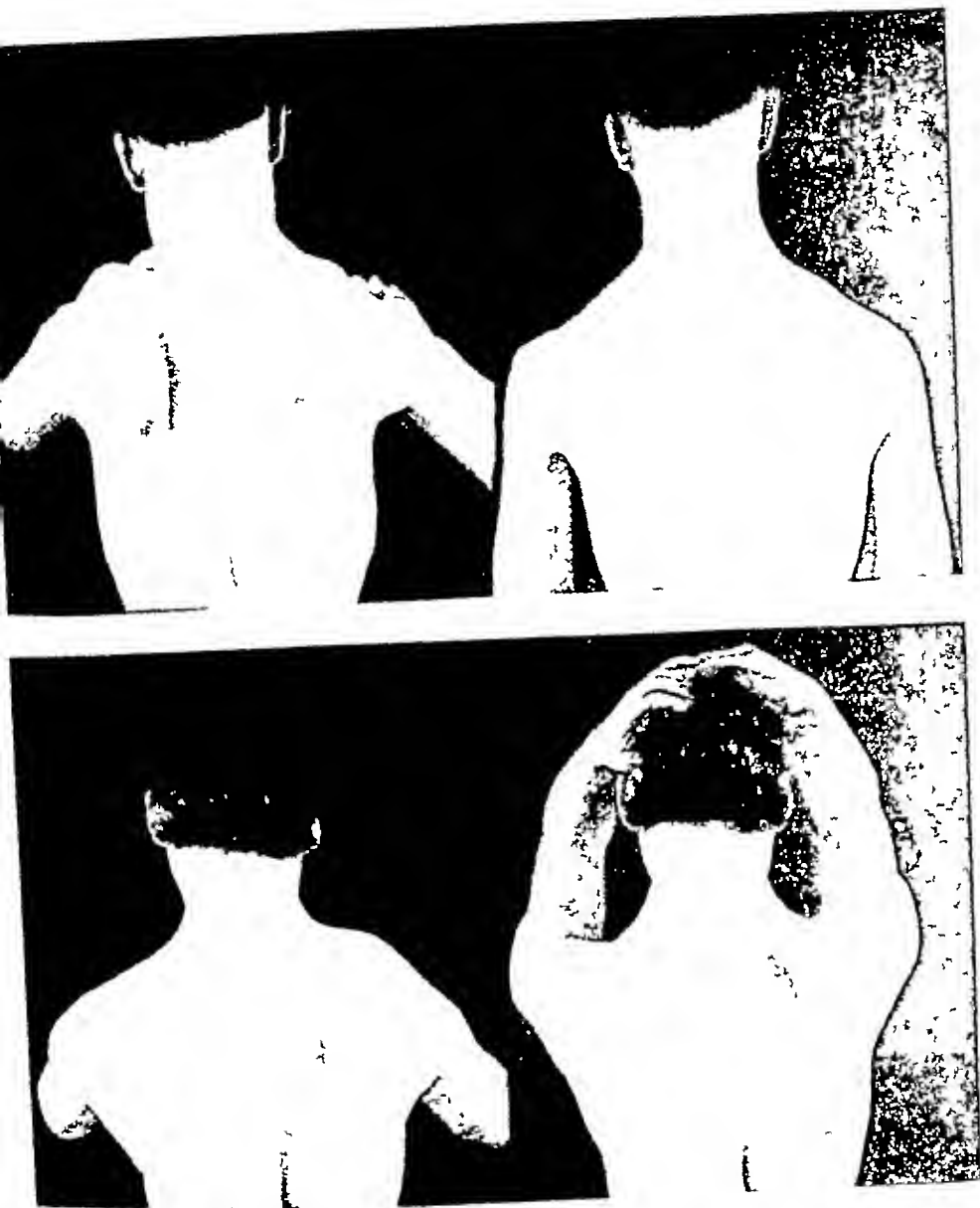


Fig 2 and 3

the arms almost to the normal upright position. The biceps and triceps jerk were not elicited. Electrical examination of the muscles of the shoulder girdle showed a fair response to faradic stimulation in both trapezi deltoidei and pectoral muscles, and a very poor response to galvanic stimulation in the rhomboids bilaterally, and a very poor response in the right subscapularis and none on the left. The general electrical examination was negative with the exception of early greying of his hair

and a brown-stained pigmentation of the skin on the face and back. X-ray of the spine showed a habituated transverse process of the seventh cervical vertebra on the right side.

R. S. (Fig 3) a thirty-one year old housewife and mother of S. S. first observed the condition when she was eight years old, although obviously the disease must have existed for several years prior. At ten or eleven years of age she noticed that her father was turning grey, and that when he reached her

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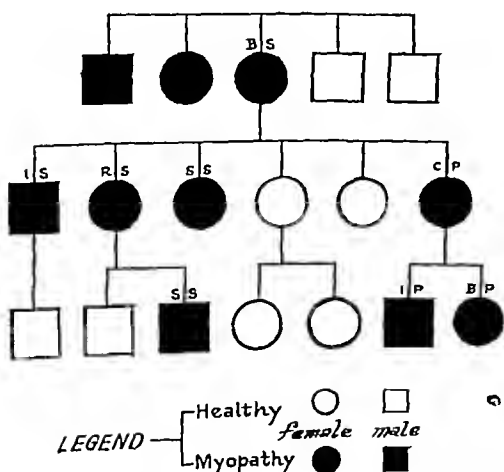


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Fig 4 and 5

two decades of life, and was hardly noticed in the beginning. The first symptoms of muscular impairment, both in size and power, occurred at the axioap-
pendicular junction. There has been little progression of the affliction to date. The atrophied and pseudohypertrophied muscles were not quite symmetrically involved, and produced a bizarre appearance of the contour of the neck and shoulders, and the contour of the patient's body was distorted in outline. The

atrophic and pseudohypertrophic muscles adjoined well-formed portions of the limbs. None of the cases with shoulder involvement had any difficulty in arising from a prone posture and there was no suggestion of "climbing up" on themselves.

We observed local disfigurement, such as winged scapulae. This is due to the elimination of the serratus muscle action with abnormal mobility of the shoulder blades. If to this is added, that of the

right arm, it would fall limp at her side. As she grew older it was difficult for her to comb her hair or to raise any object to her mouth. In order to put on her hat, she had to rest her elbow on a table for sustained support. Examination showed a well-nourished and developed female with the typical weakness and atrophy of the muscles in the shoulder girdle, more marked on the right, with the consequent greater winging of the right scapula. Because of the atrophy and pseudohypertrophy in the muscles, her neck and shoulders are abnormally wide. Her spine was slightly scoliotic. Electrical examination revealed only a quantitative reduction of response to faradic and galvanic stimulation of the muscles undergoing atrophic changes.

S S, (Fig 4) age twenty-nine, a Russian born art teacher, and maternal aunt of S S the original case, first noted a weakness in both arms at the age of eleven, and a weakness of the right side of her face at thirteen. She gave a history of having had spinal meningitis at the age of one. At twenty, she was told that she is "asymmetrical in her structure," because she could not be fitted with a vaginal pessary. She was pregnant four times, but has no living children. Six years ago, she was delivered by cesarean section of a dead baby. Examination revealed a poorly nourished and underdeveloped female. Asymmetry of the right face, with a difficulty in blowing out of the cheeks especially on the right. Whistling and pouting of the lips was also difficult. There was a marked deepening of both supraclavicular spaces with slight winging of both scapulae. The right shoulder and hip are slightly higher than the left. The skin of the face, chest, and back showed a brownish freckling, more marked than the other cases. This case is one of the Landouzy-Dejerine type of dystrophy.

I S, (Fig 5) age thirty-two, an uncle of S S, and a dress cutter by trade, first noticed a weakness of the right arm at the age of twenty. At this time it was brought to his attention, when he went to buy a ready-made suit. The tailor told him, he would have to have a coat made to order, "because his bones protruded in the back and that the right shoulder is lower than the left." Examination revealed a well-nourished and developed male with a left facial asymmetry and weakness. Atrophy and weakness of the muscles of the right arm, with inability to extend it at the shoulder level, but able to raise the arm perpendicularly. Both scapulae were

winged, but more so on the right. The neck appears wider. A slight scoliosis of the spine was apparent. This case too, should be classed as among the Facio-Scapulo-Humeral type of myopathy (Landouzy-Dejerine).

C P, age thirty-nine, another sister, and maternal aunt of our original patient S S, merely showed a weakness in abduction of the left arm, as it approached a ninety degree angle. With the use of accessory muscles, she could overcome this difficulty, and elevate her arm to the normal vertical range. She stated that she had this weakness as far back as she could remember.

B P, age twenty-two, a daughter of C P, and first cousin of the original patient S S, complained of a weakness of the left leg with a tendency to stumble while walking. At about thirteen years of age, she became aware that her left leg was thinner than the right. This has progressed, especially in the last four years. She was told that she has been sleeping with her eyes open during the past eight years.

Examination revealed a myopathic facies. Her gait was somewhat steppage on the left, due to a weakness of the left peroneal and tibialis anticus muscles, with difficulty in dorsiflexion of the left foot. There was also an atrophy of the muscles of the left leg, and to a much lesser degree in the left thigh muscles. The left Achilles jerk was not elicited. The right ankle as well as both knee jerks were present and active. The electrical responses were quantitatively reduced in the muscles of the left lower extremity. She showed no involvement of the shoulder girdle muscles. A pilonidal cyst in the sacrococcygeal region was noted.

I P, age twenty, a medical student, son of C P and brother of B P, communicated with us and volunteered the information that he had a mild involvement of the muscles of the shoulder girdle bilaterally, with a slight winging of the scapulae. Three years ago he was operated for a pilonidal cyst. He, too, was told that he sleeps with his eyes open. He was unable to present himself for examination.

Comment

We are reporting a family, showing typical dystrophic manifestations especially in the shoulder girdle muscles. In some, the dystrophy involved the face and in others, the lower extremities. The onset in all of them was within the first

ACUTE INFLAMMATION OF THE GALL-BLADDER AND BILIARY DUCTS

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The purpose of this presentation is to facilitate the diagnosis of pathological conditions, and to determine what should be done when diagnosis is made. As acute inflammation may develop from chronic conditions, the latter must also be considered with the idea of prevention of the occurrence of acute attacks. For the purpose of diagnosis, it is essential that the etiology and pathology be studied.

Three main factors determine the development of gall-bladder disease—infection, biliary stasis, and cholesterol metabolism. The anatomy of the gall-bladder with its narrow opening into the tortuous cystic duct, its lymphatic drainage into the regional nodes about the ducts, the lymphatic connection between the liver and the gall-bladder, its main blood supply by means of the single cystic artery, and impaired physiological functions of the liver, are all contributing factors in the pathological conditions which may develop. It has also been suggested that beside bacterial infection, a biochemical factor may be the cause of an acute lesion.

Infection may reach the gall-bladder or ducts by means of the blood stream, lymphatic channels or through the ducts from the duodenum. The latter source of infection is probably the least important, although Ivy proved that in animals in which the sphincter of Oddi had been destroyed, infection is apt to enter the ducts. Colp has reported that in certain cases of cholecystitis, pancreatic ferments may be obtained from the gall-bladder, which have evidently entered by a reflux from the pancreatic duct. As opposed to this however, the bile from the chronically inflamed gall-bladder is frequently found to be sterile, while pathogenic organisms may be grown from cultures of the gall-bladder wall. It is also known that after reconstruction of the common bile duct, particularly by the

different implantation methods, cholangitis is apt to follow and persist.

The method of infection through the lymphatic channels is also controversial. It has been stated that infection from a duodenal ulcer, an inflamed appendix or other abdominal inflammatory lesions, may result in gall-bladder infection by means of the lymphatic channels. In the presence of an inflamed gall-bladder, it is a frequent observation to find a contiguous area of the liver which shows an inflammatory area, and it has been assumed that this liver infection is due to an infection spreading through the gall-bladder by means of its rich lymphatic connections to the liver. On the contrary, it is known that the liver has a detoxicating power not only chemically but also bacteriologically, it is the belief of Graham and others, that the infection may spread from the liver to the gall-bladder. In a study of some two thousand cases, recently made by Shelly of St. Luke's Hospital, [New York City] the results of which have not as yet been published, in which the appendix was removed in the course of operation for some other abdominal lesion, a pathological condition of the appendix was found less frequently in those cases where the primary operation was performed for gall-bladder disease or duodenal ulcer, than in those in which it was removed incidentally in an operation for uterine fibroid or ovarian cyst, or some other non-inflammatory lesion. This, while not being in any way conclusive, would appear to be of some negative value.

It is probable however, that the main source of infection of the gall-bladder, particularly in acute cholecystitis, is by means of the blood stream and while the infection may be through the portal system at least in acute gall-bladder disease, the infection spreads more frequently through the general circulation. In a

pectoralis, trapezius, and latissimus dorsi, the shoulder blades, with the attached arms, become loose appendages of the thorax, the so-called "Loose shoulder." The arms seem much longer, when they are stretched out. Through involvement of the orbicularis muscles of the eyes and mouth, the myopathic facies is produced. The atrophy of the trunk muscles can lead to the "wasp waist."

The organic reflexes and sphincteric control were intact. No sensory disturbances were elicited. No motor paralysis was noted, except such as would result, secondarily, from the pathology in the affected muscles. The apparently hypertrophied muscles were weak. The tendon reflexes were diminished or ab-

sent, depending on the extent of the muscular impairment. No fibrillary contractions of the muscles were noted in our cases, but Spiller²⁹ has observed this phenomenon in true dystrophy. In those cases, where tests were made, the electrical responses were quantitatively, but not qualitatively, reduced.

Summary

We herewith presented a dystrophic family, demonstrating clinically, (1) the hereditary character of the disease, (2) early onset, and (3) relative limitation of type.

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References

- 1 Bell, C. *The Nervous System of the Human Body*, ed 2, London, 1830.
- 2 Duchenne, G. B. *Arch gen de med*, 15, 1868.
- 3 Erb, W. *Deutsch Arch f Klin Med*, p 452, 1883, 34 467, 1884.
- 4 Landouzy, L. et Dejerine, J. *Revue de Med*, 5 81, 1885.
- 5 Gowers, W. R. *Pseudohypertrophic Muscular Paralysis*, London, J&A, 1879.
- 6 Oppenheim, H. *Lehrbuch der Nervenkrankheiten*, S. Karger, Berlin, 1923.
- 7 Vossell, A. F. *Southern Med J*, 26 156, 1933.
- 8 Pearson, K. *Ann. Eugenics* 5 179, 1933.
- 9 McCrudden, R. H. et Sargent, C. S. *Arch Int Med*, 21 252, 1918.
- 10 McCrudden, R. H. *Ibid* 21 256, 1918.
- 11 Janney, N. W., Goodhart, S. P., and Isaacson, V. I. The Endocrine Origin of Muscular Dystrophy. Transactions of the Section on Nervous and Mental Diseases of the A.M.A., Chicago, p 259, 1917.
- 12 Brock, S. and Kay, W. E. *Arch Int Med* 27 1, 1921.
- 13 Nevins, S. *Brain*, 57 239, 1934.
- 14 Tripoli, Carlo J. et Beard, Howard H. *Arch Int Med*, 53 435, 1934.
- 15 Gowers, W. *Pseudohypertrophic Muscular Paralysis*, London, 1879.
- 16 Weitz, W. *Deutsche Zeit f Nervenheilk*, 72 143, 1921.
- 17 Di Lisi, L. *Riv di Pat Nerv e Ment*, 31 390, 1926.
- 18 Robinson, A. A. *Med Jour and Record*, 121 76, 1925.
- 19 Diehl, F., Hansen, K., u. Uebisch, G. v. *Deutsche Zeit f Nervenheilk*, 99 54, 1927.
- 20 Niwa, C. *Proc Imp Acad Japan*, 5 287, 1929.
- 21 Davidenkow, S., u. Kryschowa, N. *Zeit f d ges Neur u Psych*, 125 31, 1930.
- 22 Eulenberg, A. W. u. Collin, T. *Neur Centralbl*, 30 963, 1911.
- 23 Barnes, S. *Brain*, Mar 1932.
- 24 Kostakow, S. *Deutsches Arch f Klin Med*, 176 476, 1934.
- 25 Holmes, G. *Rev Neurol & Psychiatry* 6 137, 1908.
- 26 Gil, J. *Arch o d Neurol Inst a Wien Univ* 35 116, 1933.
- 27 Friedman, E. D. *Jour Nervous and Mental Dis* 54 294, 1927.
- 28 Steinberg, Mig. *J Bone and Joint Dis* Oct 1929.
- 29 Spiller, W. G. *Brain* 36 75, 1913.
- 30 Hurwitz, S. *Arch Neur et Psychiatry*, Dec. 1936.

THE WAR ON SYPHILIS

The United States Public Health Service is cooperating with the New York City Department of Health in an effort to improve and facilitate the reporting by private physicians and hospitals of cases of syphilis and gonorrhea occurring in their practice. In order to simplify this procedure a new form will be used hereafter, giving accurate and complete information concerning each patient. Cases may be reported by initial but for statistical reasons it is preferable that the full name should be used whenever possible. Physicians' reports are kept absolutely confidential.

To private physicians the New York City Department of Health offers diagnostic laboratory services and diagnostic and therapeutic consultation for patients who

are not able to pay the usual fee for these services. In addition the United States Public Health Service in cooperation with the Department of Health is now supplying drugs upon the request of private practitioners for the treatment of early syphilis, syphilis in pregnancy and congenital syphilis.

The Department of Health and the United States Public Health Service wish to cooperate with the physician in finding sources of infection and in bringing the family and other contacts to him for examination, and in keeping patients under treatment at least until noninfectious. No effort will be made to investigate any patient unless specific request is made by the physician.

Pathological conditions found at operation for acute or chronic cholecystitis will differ depending on the etiological factors present. There may be a thin-walled acutely distended gall-bladder, which may or may not contain stones but in which there is only a moderate amount of inflammation of the gall-bladder wall. In the type of inflammation occurring in repeated mild attacks, the gall-bladder wall may be markedly thickened, or in cases where the stone has left the gall-bladder and entered the common duct, the gall-bladder may be contracted down to a size smaller than the original stone. Occasionally, a large stone will ulcerate through the gall-bladder into the duodenum, other portions of the intestinal canal or even into the peritoneal cavity, the opening closing up leaving a small contracted gall-bladder. In such a case, a stone large enough to block the small intestine may pass on until it stops somewhere and causes an acute intestinal obstruction. The acutely inflamed gall-bladder associated with gall-stone is frequently associated with some virulent type of infection. It becomes markedly inflamed and swollen, and if examined in this stage, one will often find a stone in the ampulla blocking the cystic duct, and the gall-bladder filled with stones and infectious bile or even pus. Its mucous membrane is red or even ulcerated, the wall edematous and infiltrated with round cells and leukocytes. The serosa is red and injected and covered with lymph and beginning to become adherent to the contiguous colon, omentum, duodenum, and liver. Such an inflammation may subside if the gall-bladder empties itself by displacement of the stone in the ampulla, symptoms of chronic cholecystitis may persist or an acute attack may recur. On the other hand this inflammation may continue and result in perforation of the gall-bladder, or the impaired circulation results in gangrene of the gall-bladder wall with surrounding abscesses or the development of a subphrenic abscess or even a spreading peritonitis.

Obviously the symptomatology will depend upon the pathological condition and its subsequent development. The symptoms of a typical classical case of acute cholecystitis will be in a patient, more

frequently a woman, often one that has borne children, in the fifth decade of life, who may or may not give a history of a previous attack or symptoms suggesting chronic disease of the gall-bladder. The attack will begin with epigastric distress soon followed by inspiratory distress, right upper quadrant pain, and vomiting. The pain is frequently referred to the right scapular region and is often agonizing in character. As the inflammatory condition develops, there is elevation of the pulse rate and temperature, and an increase in the total leukocyte count with a polymorphonuclear leukocytosis. There is local tenderness in the right upper quadrant with an increased rigidity in this region, and as the gall-bladder becomes enlarged, and if the muscular rigidity is not too great, a mass may be felt. With the further development of the disease, if some cholangitis occurs, an icteric staining of the sclera may be evidenced. In the presence of such a group of symptoms particularly with a history of previous attacks, the diagnosis is easy.

But, unfortunately we do not always have to deal with such a typical group of signs and symptoms. The pain in the beginning of the attack may not be referred to the back or located in the right upper quadrant, but is referred to the epigastric region or to the left upper quadrant. In many cases there may not be very much elevation of the temperature and in a considerable number of instances—in fact, in almost one-half of the cases—the leukocyte count at first, may be within normal limits, while the pathological lesion in the gall-bladder is out of all proportion to the temperature or blood count. The late Dr Judd cited seven cases from the Mayo Clinic, in which a general abdominal infection developed while the patients were under observation and stated that in none of these cases was it possible to recognize gall-bladder pathology from the symptoms and it was not even suspected that rupture of the gall-bladder was the cause of the symptoms until autopsy was performed. He also cited eighteen autopsy cases in which evidence of acute cholecystic disease was found, and although the condition of the gall-bladder was not responsible for the death of the patient,

series of thirty-one cases of acute non-calculus cholecystitis reported by Wolfson and Rothenberg, nine gave a definite history of extra-biliary infection preceding the cholecystitis.

More than ninety per cent of the cases of acute cholecystitis are associated with calculi in the gall-bladder. Wolfson and Rothenberg have collected from various sources as well as from their own cases, over twelve hundred cases of acute gall-bladder disease in which 81 per cent showed no stones present. They called attention to the fact that in their own series, the condition was more frequent in men than in women although gall-stones formed more frequently in women than in men.

As gall-stones are found to be such an important factor in acute disease of the gall-bladder, the cause of gall-stones must be considered. Various factors here are of influence, cholesterol being the main constituent of gall-stones. Impaired cholesterol metabolism results in the precipitation of cholesterol with the formation of gall-stones. This change in cholesterol metabolism particularly occurs in pregnancy, and during high fever. Its occurrence during pregnancy is one of the reasons for the occurrence of gall-stones in women during the child-bearing period. During fever and pregnancy more cholesterol is formed and held in solution. With subsidence of temperature and after pregnancy, the excess cholesterol may be precipitated. Thus, there may be found at times an almost pure white single cholesterol stone, or what is called a typical strawberry gall-bladder may be observed in which small cholesterol crystals are found in the folds of the gall-bladder mucosa. Stagnation of bile in the gall-bladder, or impaired liver function, lessening the amount of bile salts which keeps cholesterol in solution, also is a contributing factor. In addition to this, infection when it occurs results in calcium precipitation and with these various factors at work, gall-stones are built up.

Gall-stones may be formed of pure cholesterol or contain from twenty to ninety per cent cholesterol with calcium carbonate, calcium phosphate or calcium bilirubinate. Occasionally are found small blackish or greenish stones formed

only of bilirubin or its calcium salt. Calcium carbonate or phosphate may be the sole constituent of stones in three per cent of the cases. While it has been generally believed that the Liesegang rings shown by cutting across a gall-stone are evidence of its gradual formation, there is much evidence to confirm the view of Sweet, that one large stone may be formed by precipitation and crystalization. The rings are formed by rhythmic precipitation of calcium bilirubinate throughout a colloidal cholesterol mass.

Once a stone or stones are contained in the gall-bladder their contributing influence in the development of an acute or chronic cholecystitis becomes obvious. By their presence as a foreign body causing chronic irritation, they may impair the function of the gall-bladder by causing sufficient irritation, or erosion of the gall-bladder wall allowing entrance of bacteria, or a stone in the ampulla may act as a ball valve closing off the opening of the cystic duct and preventing the gall-bladder from emptying and thus causing an acute distention of that organ or even empyema of the gall-bladder. Furthermore a stone impacted in the gall-bladder or cystic duct may by mechanical pressure interfere with the circulation in the gall-bladder wall, first by interfering with the venous return, resulting in the congested turgid edematous organ seen in an early acute cholecystitis, later by arterial compression, and thrombosis and ischemia resulting in gangrene of certain areas and perforation, or gangrene of the whole organ.

We also must recognize the fact that so-called silent gall-stones exist. Truesdell of New York, has kept a careful record of the examinations of the gall-bladder in patients on whom he has done pelvic operations, and found incidental gall-stones in forty-four out of 462 cases or 9.5 per cent, in none of which had been made a preoperative diagnosis of disease of the gall-bladder. While careful questioning postoperatively elicited some gall-bladder history in a considerable number of cases, no suggestion of gall-stones or cholecystitis could be elicited in others beyond some digestive disturbances which frequently were indefinite.

frequently compelled after careful examination and evaluation of all the signs and symptoms to make a diagnosis, of probability, instead of being positive of our preoperative diagnosis. An acute inflammation of the appendix which is located high in the abdomen rather than in its usual position may also present difficulty of differentiation and while perforation of the gall-bladder, because of its anatomical situation is usually walled off and the inflammation confined to the upper quadrant, a general peritonitis has occurred. As in the cases cited by Judd, the fact that the primary lesion was in the gall-bladder may be impossible to determine. Co-existing disease of the right kidney and gall-bladder also calls for careful study to determine the cause of symptoms then present.

The variability of signs associated with acute cholecystic disease also applies to stone in the common duct. The symptomatology of the classical case associated with cholangitis may present little difficulty in diagnosis. A typical gall-stone colic with pain referred to the right scapular region, jaundice, chills, and the septic type of temperature associated with the name of Charcot, form a chain of symptoms which present little difficulty of diagnosis. But when it is recognized that ten per cent of the cases of common duct stone may have no jaundice, almost one-third occur without chills or fever, and that common duct stone may occur without pain, the difficulty of diagnosis here becomes apparent.

In the opening paragraph of this contribution it was stated, that acute inflammation of the gall-bladder may develop upon chronic pathological conditions. As the latter is not the subject under consideration, it therefore must be considered briefly. Chronic gall-bladder disease may have as symptoms, an evidence of indigestion, particularly an intolerance for fatty foods, belching of gas, abdominal distention, and pain or at least discomfort in the epigastric or right hypochondriac regions. When this occurs in a woman who has had children, most frequently in the fifth decade of life, gall-stones or cholecystitis may be suspected. If there had been a history of subacute or acute attacks of more severe pain which has been referred in the region

of the right scapular, with tenderness under the right costal margin, for a day or so after the acute attack has subsided, the diagnosis is still more probable. If these attacks are accompanied by slight jaundice, we have further evidence of chronic gall-bladder disease with an acute or subacute exacerbation. It must be remembered however, that gall-bladder disease while frequent in the fifth decade of life may occur in any age, and in the male as well as the female. If gall-bladder disease is suspected either in the chronic or acute form, a plain x-ray film may show the presence of gall-stones, if the stones contain a sufficient amount of mineral salts to make them cast a shadow. Or the film may show a shadow caused by calcium carbonate incrustation in the wall of the gall-bladder. In a small percentage of cases, calcium carbonate mixed with bile, so concentrated as to form a white grayish mud, may partially or entirely fill the gall-bladder and cause a dense shadow on the x-ray film. As cholesterol is less dense than the gall-bladder wall or even the bile, the stone or stones of pure cholesterol unless containing a sufficient amount of mineral salts will cause no shadow on the film. Therefore a negative plain film is of no value.

Cholecystography, a method devised by Graham depending on the filling of the normal gall-bladder with dye administered by mouth or intravenously and the subsequent emptying of the gall-bladder following a fatty meal, is of the greatest confirmatory diagnostic value in chronic cases. The sodium salt of tetraiodophenolphthalein is usually employed, and is now almost always administered orally, of course this cannot be made use of during an acute attack. If the gall-bladder following the ingestion of the dye, fills normally and empties promptly, it is good evidence of normal functioning, as a diseased gall-bladder does not as a rule function normally. However, it may appear normal in contour and outline and empty promptly after the ingestion of the fatty meal and still contain stones. Frequently stones which do not show in the x-ray film by a plain plate may be demonstrated by the use of dye, because of the contrasting density of the stones and the dye.

the symptoms had been overshadowed by the coexisting disease, or were not present. These instances were cited as examples of the masked or inadequate symptoms accompanying the development of acute gall-bladder disease. It is evident also that a variety of pathological conditions may present the same clinical signs.

Zollinger in 1935, published the results of a number of experiments he had performed to explain the character of the pain and nature of the vomiting in the presence of inflammation and distention of the gall-bladder and ducts. He showed that the epigastric pain which is present in one-third of the cases was caused by distention of the gall-bladder or the ducts and explained this as being visceral in origin. The right epigastric pain occurred with inflammation of the gall-bladder and was due to the stimulation of adjacent cerebrospinal nerves. He was unable to reproduce the pain referred to the right scapular region experimentally. The anatomical explanation of this pain is through impulses, referred to the celiac ganglia of the lower posterior dorsal nerve roots. He also found an absence of vomiting when the gall-bladder was distended, and that the vomiting was a prominent symptom of the distention of the ducts. A series of experiments have also been done within the past year by Dr. Waltman Walters, with Drs. J. M. McGowan and W. L. Butsch of the Surgical Division at the Mayo Clinic, in patients on whom drainage of the common duct had been instituted. By increasing pressure in the common duct, pain could be caused, and it is of particular interest that morphine had little value in relieving this pain, whereas in a number of cases, it had been immediately relieved by inhalation of an amyl nitrite perle, or the introduction of one one-hundredth grain of nitroglycerin under the patient's tongue. The explanation of this phenomenon was that the pain was caused by spasm of the sphincter of Oddi.

The unreliability of the blood count and the temperature elevation has also been alluded to. Perhaps the explanation of this, is the fact that the circulation of the gall-bladder depends on the small artery and vein along the cystic duct, the

general lymphatic drainage following the same course. When there is an early interference with both the circulatory and lymphatic drainage this would limit constitutional absorption, therefore the constitutional reaction is shown by temperature elevation and changes in the blood count. Perhaps another explanation may be that of Dr. Judd, who states that there is evidence that cholecystitis is not always the result of infection, as similar changes in the gall-bladder to those caused by infection, have been produced experimentally by the introduction of certain chemical substances into the blood stream. The foregoing may be some explanation for the variability of symptoms but they do not make it any easier for us to determine the extent of gall-bladder pathology by the signs and symptoms the patient may present. Recognition of this fact is responsible for the general tendency of many surgeons during the past few years to oppose the accepted policy of delay of operation in the acute cases.

While we have seen that in the presence of recognized gall-bladder disease it is difficult to determine just what the pathological condition is, it is also not always possible to determine positively that the symptoms present are caused by gall-bladder disease. Perforation of a duodenal ulcer, an acute pancreatic necrosis, or diseases of the colon or right kidney may present a chain of symptoms closely resembling cholecystic disease. While there are points by which a differential diagnosis may be made in a number of cases, in many instances it cannot be much better than a good guess. In going over a series of operations for acute pancreatic necrosis at St. Luke's Hospital, the common error in diagnosis was to mistake this lesion for acute cholecystitis.

An acute massive perforation of the duodenum accompanied by collapse, the rapid development of rigidity, with air in the peritoneal cavity may not present great difficulty in making a differential diagnosis, on the other hand a slowly developing perforation with localization of the surrounding peritoneal irritation which would extend to the region of the gall-bladder and ducts, may cause the greatest difficulty in differentiating it from cholecystitic disease—and we are

that after the clinical symptoms had largely subsided, the pathological condition might still remain that of an acute inflammation or even progress in severity. It was also apparent that perforation or gangrene of the gall-bladder while not of frequent occurrence, gave a mortality of fifty per cent if the perforation were free into the general peritoneal cavity. Also an operation which has been deferred until dense adhesions had formed about an acutely inflamed gall-bladder is technically more difficult than cholecystectomy in the acute stage. So the conclusion was reached by many surgeons that the danger of delay appeared to be greater than the danger of early operation.

This idea became further crystalized when Miller and Mentzer, in two papers published in 1930, and a second paper by Mentzer, and one by Zininger in 1932, emphasized both logically and statistically the danger of delay. Three papers read by Stone, Judd, and Smith before the American Surgical Association in 1933, while differing somewhat in emphasis on the necessity of promptness of operation, abandoned the teaching of delay in all cases, and in the discussion of their papers, no voice was raised in opposition to this teaching, although there are still some who believe that the postponement of operation until the acute inflammation has subsided, will give a lowered mortality.

To outline definitely a method of procedure which would cover the handling of all cases of acute cholecystitis and which would be acceptable to all surgeons would be impossible. One may however, I believe, outline a plan which is my own method of approach in such conditions, and in which probably a large number of surgeons would concur. It is agreed that all cases with few exceptions should be operated on. The point of controversy is *when*. It is agreed that cholecystectomy unless definitely dangerous is preferable to cholecystostomy. If the symptoms are mild, it is preferable that the patient have the advantage of having preliminary treatment with glucose and saline intravenously, to increase the glycogen reserve of the liver and increase their operative resistance. At the same time, kidney function can be determined, and if jaundice is present to a marked

degree which is usually not the case, unless there is also a common duct-stone or cholangitis, blood transfusions or administration of calcium chloride may be employed to lessen the danger of post-operative hemorrhage.

This means a short delay, but not necessarily until all symptoms have subsided. In the presence of very acute pain and an unusually high leukocyte count, and much temperature, which would indicate imminent or occurring gangrene or perforation, the patient's safety will be better conserved by immediate operation than delay. It must be further borne in mind, as was previously mentioned in determining the plan of treatment, that during this period of delay, the acute pathological process may still be present and progressing with subsidence of the clinical symptoms and laboratory data. It is definitely my belief that enough statistical evidence has now been collected and reported to prove that in a great many cases, delay can cause more mortality and morbidity than is compensated for by any of the arguments in favor of waiting until all symptoms have subsided. Numerous writers have proven this. While very few instances of acute cholecystitis are to be considered in the nature of an imperative emergency as in acute appendicitis, the idea of waiting until all acute inflammation has subsided, I believe is gradually being abandoned and the idea of prompt operation rather than delay or immediate emergency operation accepted.

It is not the purpose of this to go into the technical part of surgical operations, suffice it to say that in the presence of jaundice due to common duct stone or cholangitis, which fortunately (usually) does not occur with acute gall-bladder disease, it is necessary to remove the stone and drain the duct, if the patient is to be relieved of his symptoms.

In order to help us save the lives of more patients on whom operation should be performed, it is necessary to know the causes of death after gall-bladder operations. Heuer has made a study and reported on a thousand gall-bladder and bile duct operations from New York Hospital and of 36,623 from the literature. It is of interest to note how closely these correspond in the most common

That is, negative shadows due to less dense cholesterol stones may be evidenced against the more dense shadows of the dye in the gall-bladder. When after the proper technic of taking the films after the administration of the dye, there is no filling of the gall-bladder and there is no gall-bladder shadow on the x-ray film, this is interpreted in most instances as being caused by a stone either in the cystic duct or in the ampulla blocking the cystic duct and preventing the filling with the dye. While this in the majority of instances may be considered of the utmost diagnostic value, it again must be remembered that in a definite percentage of cases, temporary edema of the cystic duct, perhaps the blocking of the cystic duct by mucus or other causes, may prevent the gall-bladder filling with the dye in the absence of gall-stones. This may result in a wrong diagnosis. It has been my belief that a non-filling gall-bladder, unless demonstrated by a second examination, is not sufficient without good confirmative clinical symptoms to justify operation. It is only fair to state however, that in a consecutive series of 191 operated cases at St. Luke's Hospital, the percentage of preoperative error in diagnosis made by Dr. Eric Ryan by cholecystography was only 4.79 per cent, and that the non-filling gall-bladder furnished one of the smallest percentages of error.

A cholecystogram is also of value to determine when a shadow of a stone has been shown in the right hypochondriac region to differentiate whether the stone is located in the gall-bladder or in the upper pole of the right kidney, and particularly where coincident diseases of both organs may be present. But again, the cholecystograph should not be used if there is jaundice or a suspicion of an acute lesion of the gall-bladder being present. In such cases or as a confirmatory measure, an examination of the fluid obtained by duodenal drainage may be used, the presence of bacteria and crystals, particularly cholesterol and bilirubin crystals being sought.

As this is intended to be of value to the general practitioner, the technical part of the operative treatment of gall-stones and cholangitis should not be considered. However, as patients are under the care of the general practitioner before they

reach the surgeon, the question of when operation should be performed is of the utmost importance to them.

Prior to 1930 to 1932 the general consensus of opinion favored delayed operation in acute gall-bladder disease. Delayed operation was based on the assumption that most of the milder attacks of acute cholecystitis subsided spontaneously, and that the danger of operation during the time of acute inflammation would necessarily cause an increased operative mortality because of less resistance of the patient, and greater danger of spread of infection. It was recognized that in acute appendicitis, if not operated upon promptly, perforation would probably occur with development of general peritonitis. In acute cholecystitis however, not only was it probable that the acute inflammation would subside in mild cases, but also that the inflammatory area would become walled off by adhesions in the presence of more severe inflammation. It was also assumed that perforation rarely occurred, and if it did, the area would be walled off with the formation of a local abscess. Furthermore, patients with acute cholecystitis were usually of an age, or as a result of their gall-bladder disease, apt to have impaired heart, liver or kidney functions which by proper treatment might well be put in a condition to more successfully cope with a major operation. Also the danger of upper respiratory infection had to be considered.

These were a formidable array of reasons for delay, and there was an equally formidable array of surgical authority both here and abroad who advocated postponement of operation until the acute symptoms had subsided, unless there occurred evidence that the pathological condition in the gall-bladder was becoming worse.

In the last few years, there has been a decided change in the opinion of more and more surgeons in favor of earlier operations. It was recognized as previously mentioned when discussing symptoms, that the pathological condition of the gall-bladder might be out of all proportion to the temperature, blood count, and clinical symptoms, that the general symptoms might improve while the pathological condition was progressing, and

which would apparently fall into one of these three classifications. However, it is contended by some surgeons—notably Colp and Turoff—that in a large group of cases dying after gall-bladder operation or from acute gall-bladder or duct disease, when no operation has been performed, an autopsy will nearly always reveal some type of infection, either of the peritoneum and liver, or its ducts, or pulmonary infection which would explain death rather than some chemical condition which would be dependent on altered function of the chemistry of the liver.

The effect of infection by anaerobic organisms has been receiving more attention recently, and probably more positive cultures would be obtained if anaerobic cultures were made.

A careful study of why patients die from certain diseases or following operation for those conditions, should be of the greatest value to avoid mortality and promote their recovery. Knowledge so acquired is helping us in the treatment of acute inflammation of the gall-bladder and bile ducts.

568 PARK AVE.

PRESERVE THE AMERICAN MEDICAL

Leading pharmaceutical manufacturers are joining forces with the physicians to resist the threat of state medicine which hangs darkly on the horizon. The Petrolagar Laboratories are sending broadcast a little folder which is made attractive by a reproduction of the famous painting of "The Doctor" by Sir Luke Fildes, and which contains this fine tribute to the work of the family physician under our present American system. It runs:

In our country today the average citizen is still able to select a doctor in whom he has confidence, and who will feel that his duty to his patient is paramount to all other obligations. For some time our doctors have been

concerned over the threat of socialized systems of medicine which would destroy individualism, inhibit initiative, and place the politician between the doctor and the sick who call on him for relief from suffering and the cure of disease. Today the quality of medical service in the United States is better than that available in any other large nation in the world. This record is the result of the application of the individual principle to medical practice and is the chief factor which distinguishes American medical practice from that in many other countries. Our doctors are concerned with giving more and better medical care to all the people. It is an obligation which they have never denied in the past, and which they will be proud to continue under the present system.

TIME TO PARK THE HORSE AND BUGGY

Needless waste of public funds in the fight against tuberculosis was charged to fence-straddling policies of public authorities in an address which Dr Robert E. Plunkett, superintendent of Tuberculosis Hospitals of the State Department of Health, gave on April 11 before the St. Vincent De Paul Society in Troy.

Dr Plunkett declared there is a needless waste of millions of dollars counted in terms of unnecessary deaths, preventable illness and disrupted homes. Open acceptance and advancement of the state's campaign for early diagnosis of tuberculosis was advised as one means of stemming the expensive tide.

"Every 34 minutes a new case of tuberculosis is reported in New York State, but only once in every 170 minutes is a case reported which holds real promise of recovery," Dr Plunkett declared, "In other words, four out of five cases have reached

advanced stages before proper medical care and supervision are provided.

"It is estimated that each case costs society, directly or indirectly, at least \$500. In addition, tuberculosis leaves in its wake the seeds for other cases. It is estimated that in this state, 45,000 persons are suffering from the disease.

"Why do we tolerate tuberculosis? Because too many persons are still living in the horse and buggy days and have not seen fit to retire the horse to pasture and the buggy to a museum and use modern weapons in the control of the disease. The x-ray is one of the most important weapons."

EXAMINE HIS PIPES

Doctor "Have you any organic trouble?"

Patient "I think I have. I can't even carry a tune."

—Colorado Medicine

cause of death in the two lists. Consequences of surgical procedure—peritonitis and shock—are given as thirty-three to thirty-seven per cent. Next in frequency is pulmonary complications which is twenty to twenty-five per cent, cardio-renal complications ten to twelve per cent, liver deaths four per cent, pancreatitis two per cent. In the list there are seventeen to nineteen per cent which are classified as miscellaneous and undetermined. Of course, the mortality is higher in acute cholecystitis, but attention must also be given to the higher percentage of mortality in the latter decades of life.

In consideration of these various causes of postoperative death, one may feel that a certain percentage of them may be avoided. Some deaths from peritonitis, hemorrhage, and shock may be avoided by greater care and better technic in the operation, by making an earlier diagnosis, and urging operation before the patients are in the latter decades of life where they stand operation badly and have less resistance, and perforation or gangrene of the gall-bladder is more frequent. Cardio-renal complications may be diminished if the patient has not a sufficiently acute fulminating process, by adequate preoperative preparation, and it should be kept in mind that a large percentage of cholecystitis cases have cardiac or renal complications, hence the advisability of close cooperation of the physician and surgeon in the evaluation of the time and advisability of operation and preoperative and postoperative treatment. The deaths due to gangrene and perforation would, in a large number of instances, be avoided if the operation were done before the gangrene and perforation had occurred. Pulmonary complications probably always will be with us. They can be lessened if the patient can be protected from exposure immediately before and after the operation, by the avoidance of too tight dressings which compress the lower chest and prevent deep breathing, by moving of the patient in bed after operation and encouraging deep inspiration as soon as the patient is sufficiently conscious and able to respond to suggestion. But a certain number are due to pulmonary emboli or follow massive collapse, due to bronchial occlusion by thick mucus, and

none of the precautions mentioned can effect the former.

In this list of causes of death, "liver-death" is put down as four per cent, and seventeen to nineteen per cent, are classified as miscellaneous and undetermined. Some of these are probably cases in which there is progressive cholangitis, late development of liver abscess, injuries of the ducts, secondary hemorrhage, injury to the hepatic artery or thrombosis of the portal vein, wound separation, and some of the less common complications. There still remains among the undetermined causes, certain fatal cases in which even at autopsy, it is difficult to determine just what has been the determining factor in the unsuccessful outcome. Heyd has called attention to certain postoperative complications following operation on the gall-bladder, in which the causes of death seemed to be in their nature chemical, and not due directly to the surgical procedure. Group I, of which he calls "liver-death," is characterized by hyperpyrexia immediately after operation, coma, and death. This may occur in patients who have not been jaundiced and have not had preoperative temperature, or it may occur in patients who have been deemed to be good operative risks. Group II are cases operated on for obstructive jaundice and in the presence of a diminishing icteric index, develop coma and die. Group III are postoperative cases which develop a picture of extreme shock, thirty-six to forty-eight hours after operation, some of whom improve or may recover after large fluid intake. He considers death in the first two groups due to a disturbed or altered chemistry incident to liver failure. In Group III, there seems to be a more profound chemical disturbance in which renal function and disturbed water balance are pronounced factors. Heyd calls particular attention in these cases to the large fluid circulation in the liver and the necessity where there has been large water loss by increased vomiting, biliary drainage, and excessive sweating, which if not replaced by paraenteral administration of fluids allows the water balance of the liver to become so low as to be incompatible with its normal function and chemistry. Any one doing a large amount of gall-bladder surgery, unfortunately sees some cases

In Table II it is seen that almost one third of the hernia cases occurred in temporary employees. These men in contrast to regular employees did not receive a pre-employment physical examination. Twenty-two were snow laborers taken from the relief roles of the city.

TABLE II

68 Regular Employees—Pre Employment Physical Examination.
32 Temporary Employees—No Employment Physical Examination

Many of these after only a few hours of work would complain of a pain in the groin and after examination, a hernia was found.

A. M., emergency snow laborer, age thirty-five, while shoveling snow January 27, 1935, felt a pain in the groin. He told his squad leader, but did not stop work. Claimant was examined at a hospital three days later where a bilateral hernia was found. This was a recurrent hernia. A bilateral herniotomy was previously performed in December 1933, only thirteen months previous to alleged injury. The State Labor Department ruled in favor of the claimant that the hernia developed as a result of this alleged injury, and the claimant was reoperated and received compensation.

F. F., age fifty-nine, emergency laborer, was pushing a snow shovel January 28, 1935. Claimant had a slight pain. He paid no attention to it and continued working. Three days later pain was worse. *Diagnosis* Large left and small right inguinal hernia. The Labor Department referee ruled there was causal relation, and the claimant was operated upon and received compensation for the resultant disability.

Two of the emergency snow laborers were wearing trusses at the time of injury and admitted having worn trusses for inguinal hernia for several years. Naturally, these cases were disallowed.

When a claimant presents himself at the Medical Department of the Compensation Division of the City of New York with a hernia, a truss is ordered for him without prejudice, that is regardless of whether we believe the hernia is due to the accident described or not. At a subsequent hearing before the referee of the State Workmen's Com-

pensation Division, in controverted cases, an operation is usually ordered as these cases as a rule are decided in the employee's favor.

Not all patients, however, decide on operation. Table III shows the treatment of these cases.

TABLE III

Operation	41
Truss	57
Injection treatment	2

The legal question of causal relation is not important in the cases that refuse operation, as there is no disability while the claimant wears this support. In many cases, the referee will postpone decision on the question of causal relation until such a time as the claimant decides on an operation.

It is interesting to review briefly the cases which were considered not compensable at the Labor Department (Table IV).

TABLE IV—DISALLOWED CASES

Regular employees	4
Temporary employees	5

Regular Employees

1 A. M., age forty-three, employed four years, appeared for physical examination prior to change of title from extra man to regular sweeper in the Sanitation Department. He was rejected when an incipient bilateral direct inguinal hernia was found. He thereupon claimed that he was lifting a can of ashes two days before when he felt a pain in the right groin.

2 G. W., age forty-one, fourteen years in service, Plant and Structures employee, tripped and struck right groin against corner of iron bar. Rested a while and then continued working. Examined by the city physician the following day when a right direct inguinal hernia was found, but no local evidence of trauma.

3 F. H., age sixty-one, employed nine and one-half years, Plant and Structures employee. During the day, lifted a heavy valve. He had no pain and worked the entire day. That night noticed lump in groin. *Diagnosis* Right direct inguinal hernia.

TRAUMATIC HERNIA

JULIUS DAVIS, M D, *New York City*

This report is an analysis of one hundred consecutive cases of hernia seen in the Compensation Division of the Law Department of the City of New York, occurring in the first half of the year 1935

From a medical standpoint, traumatic hernia is a very rare condition. By a traumatic hernia, we mean a hernia that has developed with an actual tearing of the peritoneum as a result of increased intra-abdominal pressure, or as a result of tearing or stretching of the inguinal ring, or other hernial exit following injury. The symptoms arising from such a traumatic hernia would be

- 1 Severe pain and prostration
- 2 Immediate disability, the patient stopping work at once
- 3 Ecchymosis may develop at the site of the herniation
- 4 The accident should be of such serious import that medical aid is sought at once

In contrast to this, we have ordinary hernia which develops as a result of congenital weakness. There is a gradual stretching of the abdominal opening with the formation of a sac. When bowel or omentum enter this sac from strain, such as coughing or from muscular effort, the sac has existed for some time. If the contents enter the sac suddenly, there will be a complaint of pain, but the pain is in no wise severe enough to disable the patient. He continues working. If the sac fills slowly, there will be no complaints of pain, but when the patient sees the mass he will ascribe it to some specific incident in the course of his employment such as lifting a heavy object or cranking a car. From a medical standpoint we know that the hernia has existed and developed over a period of many months or years. Legally under the Workmen's Compensation Law of New York, the specific trauma to which the claimant chooses to ascribe his hernia is frequently ruled as the cause, and the worker is entitled to hospitalization, surgical treatment, and a minimum of eight weeks' compensation.

The referee in reaching this decision is guided by the evidence. The claimant will testify that on a particular day at a specific time, after an ordinary occupational stress, or strain, he felt a pain in his groin. Usually he does not stop working. His physician will send in a medical report in which his answer will be yes to the following questions: (1) Is the claimant's present disability a result of the injury above described? (2) In your opinion was the accident as above described, a competent producing cause of the injury sustained?

The employer or insurance carrier may produce a physician who will testify to the contrary. The referee cannot be criticized for ruling in favor of the claimant when the physicians disagree.

Harvey Stone¹ states

If a decision grants compensation to a workman for hernia, it does not follow that the hernia was caused by the work, but simply that under the provisions of the law, a man developing a hernia in the course of employment is entitled to compensation. As a matter of fact, medical opinion is strongly opposed to the view that ordinary muscular effort is anything but a minor contributory influence in the development of ordinary forms of hernia.

TABLE I—VARIETY OF HERNIA

VENTRAL Incisional 1, Epigastric 2	
INGUINAL (a) Unilateral, 66 (b) Bilateral 19, (c)	
Post operative recurrence, 12	
(8 Unilateral, 4 Bilateral, and 1 Second Recurrence)	
(2 incarcerated and 7 previous operation on other side.)	

Table I is an analysis of the variety of hernia seen. It will be noted that thirty-eight of the 100 cases had evidence of pre-existing weakness—i.e., either recurrence, evidence of hernia on the opposite side without complaints or scar of operation on the other side in the inguinal region. The nineteen cases of bilateral hernia usually complained of pain on one side only. When informed that they had bilateral hernia, they assumed that the alleged trauma was the cause for the condition on both sides.

PARTIAL (BILATERAL) ADRENALECTOMY

For Malignant Hypertension

LOUIS FRIEDMAN, M D and A. A. EISENBERG, M D, *New York City*
From the Surgical Service, Department of Pathology, Sydenham Hospital

The etiology of essential and malignant hypertension is still in a controversial state. None of the theories so far advanced have an unassailable foundation.

Medical aid has been only symptomatic relief, if that, while the progress to fatal ending has been uncontrollable and inevitable. Because medical treatment has been a failure, various surgical procedures have been advocated and tried backed by quasi-theoretical reasons, none of which so far will bear severe criticism. The line of attack for this empirical surgery has been the adrenals and the sympathetic system.

I do not wish to offer conclusions, only state clear facts. Seven cases were studied and operated upon in order to determine, if possible, the value of partial adrenalectomy in essential and malignant hypertension, only two were ideal essential hypertensives. There were five bilateral and two unilateral, altogether twelve partial adrenalectomies. The convalescence has been generally smooth and uneventful, with an immediate mortality of two—Case 6, acute adrenal insufficiency, Case 7, cerebral hemorrhage. Unfortunately, these two were the ideal essential hypertensives, wherein observation would have been of the greatest value.

All of them have been advanced cases, length of illness from three to eight years. All of them were hopeless, with no relief from medical care.

Five of the cases were advanced with secondary cardiorenal changes, while two were early essential hypertensive. The ultimate results are anything but satisfactory with only comparatively temporary improvement in symptoms, and lasting improvement altogether disappointing.

While all who survived the operation had a considerable drop in tension, in only two did the tension remain much lower for more than two years, than be-

fore operation, and all have had symptomatic relief for only a short period.

Two patients died from adrenal insufficiency, one acutely, one several months after operation, one died from cerebral hemorrhage four months after one side was operated upon with only temporary drop in pressure and moderate symptomatic relief. One died from cerebral hemorrhage twenty-four hours after a one side partial adrenalectomy.

Out of seven cases only one is alive since this study was started, and in good health as compared to before operation—Case 4, with tension remaining much lower than before.

All seven cases here reported had about the same symptom complex. Headache, dizziness, nausea, loss of weight, and myocardial damage was present in four cases, renal damage in three, blood pressure from 200 to 290, systolic, diastolic proportionately high—eyeground damage—vessel spasticity in five cases. * Age ranged from nineteen to forty-three.

Nevertheless, partial adrenalectomy should be given a fair trial, since other medical or surgical measures are by no means encouraging in very carefully selected cases of malignant hypertension, wherein the presence of albumin is low, the eyeground changes and myocardial damage not too far advanced, and Van Slyke clearance fairly good. The ideal cases, however, would be the essential hypertensives without any organic changes, but here the difficulty will arise to convince the medical man of its probable value since it is an empirical procedure, and to convince a symptomless hypertensive patient.

I feel that like patients having tuberculosis, who receive sanitarium treatment and all the benefits therewith, so hypertensive cases should be given the benefit of institutional care, with sunshine, fresh

* Complete clinical history available on request.

4 R B, age forty-three, hospital employee, "strained myself" lifting a patient. He did not notice lump till one week later. Had no pain and lost no time from work.

Emergency Employees

1 and 2 Emergency snow laborers who had been wearing a truss one year or more prior to the alleged accident.

3 S J, age thirty-eight, temporary snow laborer, gave two different histories. (a) Using pick to chop snow, he strained his right side. (b) Struck his right groin with a pick handle. Worked the entire day after the injury. Reported the accident ten o'clock that evening. He was examined the following day at the Sanitation Clinic. A right inguinal hernia was found.

4 J J, age fifty-two, emergency snow laborer, was shoveling snow and "ruptured himself." Continued working. He sought no medical aid until ten days later when a left direct inguinal hernia was found. He felt no pain at the time of the alleged injury.

5 J H, age twenty-six, hospital employee, employed one month as a stretcher bearer. Felt pain in the right groin. Examined by a hospital physician the following day. Lost no time from work. *Diagnosis*: Dilated right external inguinal ring (no actual hernia).

From the cases disallowed, we can draw the following conclusions:

1 Cases developing in the course of employment without pain will often be disallowed.

2 Cases where there is no actual hernia, but only a large external inguinal ring or a large canal may be disallowed.

3 The referee may doubt the credulity of a claimant.

Ninety-one cases remain. Of these, the large majority were ruled as compensable because they occurred during the course of ordinary occupation stress of the worker and he complained of pain. In some of the cases in which the claimant did not desire an operation, decision was deferred.

A large proportion of the compensation claims for hernia can be eliminated by careful pre-employment examination and subsequent periodic examination.² The Surgeon-General's Office at Washington reported 238 per cent of drafted

men during the World War suffered from hernia.

Wylls Andrews³ states that about six per cent of all males in the community are incapacitated by hernia for appointment in the army, navy, police or fire departments. From my own experience, I can agree with him. In the course of pre-employment examinations in a large wire factory, I have found about five per cent of the applicants have hernia or potential hernia (large inguinal rings with impulse on coughing). Of more than one thousand men who were found free from hernia, and who have worked for the past four years at heavy manual labor, only two developed a hernia in the course of their employment. This is in direct contrast to the very large number of claims prior to the introduction of pre-employment examination at the factory plant.

The question of hernia as an industrial disease has never been decided at the State Labor Department. Can dilation of the inguinal rings and canals occur slowly as the result of constant exertion with the gradual production of hernia? It would be more reasonable to believe this than to assume that one lift actually produced it.

Summary

1 Compensation claims for hernia can be reduced to a minimum by careful pre-employment examination. Any cases overlooked can be discovered on subsequent periodic examination once every year or two.

2 Hernia developed in the course of employment accompanied by pain which frequently is not disabling, is usually ruled compensable in New York State.

3 It is suggested that definite standards be set by the Medical Profession and recommended to the State Labor Department as to what cases be ruled compensable.

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References

- 1 Stone, Harvey. "Hernia," *Dean Leans Surgery*, Vol. 7.
- 2 Wilkinson. *Int Journal Med, and Surgery*, Dec. 1934.
- 3 Andrews, Wylls. *Ochsner's Surgery*, 3 225 1921.

PARTIAL (BILATERAL) ADRENALECTOMY

For Malignant Hypertension

LOUIS FRIEDMAN, M D and A A EISENBERG, M D, *New York City*
From the Surgical Service, Department of Pathology, Sydenham Hospital

The etiology of essential and malignant hypertension is still in a controversial state. None of the theories so far advanced have an unassailable foundation.

Medical aid has been only symptomatic relief, if that, while the progress to fatal ending has been uncontrollable and inevitable. Because medical treatment has been a failure, various surgical procedures have been advocated and tried backed by quasi-theoretical reasons, none of which so far will bear severe criticism. The line of attack for this empirical surgery has been the adrenals and the sympathetic system.

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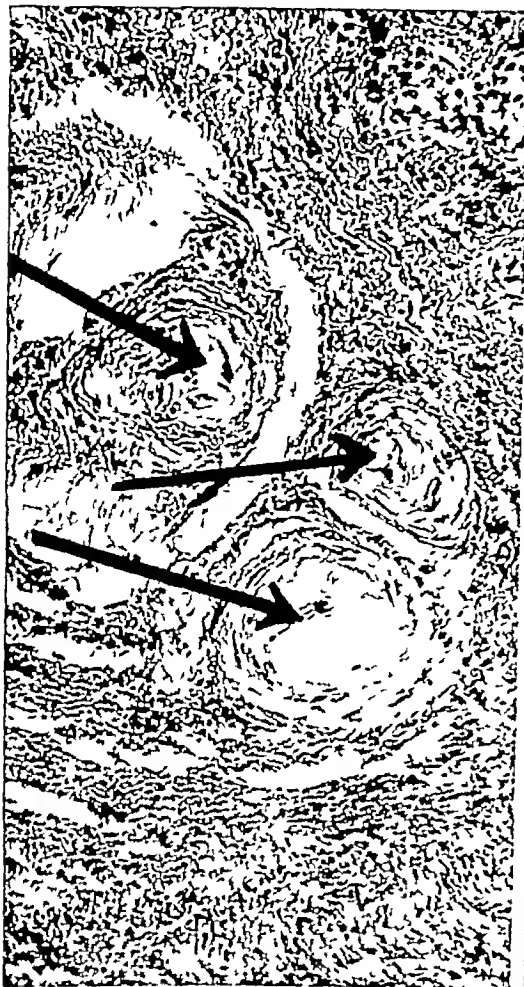


Fig 1 Adrenal gland Much fibrosis of the capsule. Blood vessels show thickened walls, in one, the lumen is obliterated. (Case 5, first operation)

air, diet regulation, etc, for at least a year after operation

Postoperative Follow-up

CASE 1 J B Blood pressure before operation averaged 230/160—250/160

Postoperative in hospital 190/120—160/150—170/160 May 21, 1935—170/120, May 29—210/150, June 12—190/150 At this point patient was generally improved, there were no headaches or nausea, but often precordial pain, and he admitted a general feeling of well-being. However, family disturbance, worry, excitement, nervous upset caused severe setback and he went to a sanitarium in Philadelphia. Blood pressure then was 190/120,

five c.c. albumin in urine, precordial pain. Several months later developed symptoms of adrenal insufficiency. Progressive asthenia, cortin was of value for a time, but patient died in January 1936

CASE 2 S G Blood pressure before operation averaged 264/156—280/160

After operation in hospital blood pressure dropped to 160/110—180/136—200/120 July 24, 1935—Feels well, no headaches or dizziness. Blood pressure—220/170 October 24—Feels better, no headaches or nausea, gained weight, was readmitted for second operation, while in hospital pressure was 240/130. Patient developed a hemiplegia. Second side was not operated upon for the above reason. Four months later, blood pressure was again higher with return of headaches, etc.

CASE 3 S B Average blood pressure before operation 240/170 After operation in hospital 220/140—160/130

April 1935—Blood pressure—210/160 June 12—Has had three attacks of severe headache—blood pressure—190/150—albumin, 3 plus, July 25—Feels well, no headaches, gained weight. October 8—Has been working, no headaches, sleeps well, blood pressure—190/150

April 8, 1936—Blood pressure—180/130 April 16—Blood pressure—190/130 At this



Fig 2 Kidney A thickened vessel near two glomeruli, dilated and hyperplastic glomeruli. Moderate glomerular changes (Case 6, first operation.)

time, patient felt that the operation had been well worth-while as he was in better health than before the operation. Adrenalectomy was of no ultimate value, however, as the patient has since expired.

CASE 4 D. K. Before operation blood pressure averaged 260/140—240/122

After operation, the patient experienced general improvement, fewer headaches, weight gain, no nausea or vomiting, and felt that the operation was worth-while. Postoperative blood pressure average—210/130—150/120. Many months of follow-up showed general improvement, gained weight, no headaches or nausea. Blood pressure ranging well below original preoperative pressure. 190/130—170/120—200/140. I feel that this patient has been definitely helped by operation.

July 1936—Blood pressure—180/140 and doing well.

February 1937—Feels great deal better. Blood pressure varies 160 to 190.

CASE 5 C. D. Before operation blood pressure averaged 295/145—260/130—220/140. After operation in hospital 'pressure' averaged 190/110—140/130.

Follow-up progress Always a rise of twenty to thirty points before menstruation. Blood pressure 180/130—200/120. This patient unquestionably has been benefited by operation. (Fig 1) The oldest postoperative observation. General improvement, no headaches. She has, however, often precordial attacks. Patient feels the operation was well worth-while.

July 1936, blood pressure 180/130. Pre-menstrual rise controlled by x-ray. Myocardial failure caused death in November 1936.

CASE 6 E. R. Blood pressure before operation averaged 230/120—250/130.

After operation in hospital, blood pressure averaged 200/120—170/120.

Was much improved after first partial adrenalectomy, (Figs 2-3) no headaches or nausea, gained weight, pressure again rose to 240/130. Second operation six months later (Fig 4). Died from acute adrenal insufficiency.

CASE 7 H. D., age nineteen. Blood pressure before operation averaged 190/120—240/160. Van Slyke clearance, good. During operation blood pressure did not drop as usual in all other cases. After operation blood pressure rose to 280/225, and the next day weakness developed in left upper and lower extremities followed by coma. Complete left hemiplegia and extus. Histological section of adrenal showed markedly thickened capsule, vessels tremendously thickened, lumen reduced to a mere narrow slit, media markedly hypertrophied, and the cortex moderately hypertrophied.



Fig 3 Muscle. Very striking blood vessel is seen at arrow, ratio of wall to lumen is about two to one, instead of one to two. Subintima nucleated. (Case 6, first operation)

The several lines of surgical endeavor for the control and possible cure of hypertension, so far are

- 1 Crile's adrenal denervation¹
- 2 Ganglionectomy, Sympathectomy with partial Adrenalectomy²
- 3 Rhizotomy, anterior and posterior dorsal and lumbar root section
- 4 Bilateral, partial adrenalectomy

The multiplicity of methods weakens the probable correctness or infallibility of each. Nevertheless, one or a combination of some of the above procedures may

be an important factor in the cure or alleviation of malignant hypertension. As White ("The Autonomic Nervous System" 1935), correctly states, "The whole matter of surgical intervention in severe hypertension is still so much in its infancy, that it is impossible to form any final judgment."

It seems, however, that some of the proposed operations through remote attack, by way of the sympathetic system

problem of the etiology of hypertension. Individual reaction of this class of patients to excitement, physical and mental strain, environment, interrelated internal secretion, the chromaffin system, the possible effect of sympathin—all have a direct bearing on etiological background.

Dr Crile has performed unilateral adrenalectomies in hypertension with disappointing results, but his cases reported were not pure malignant hypertension.

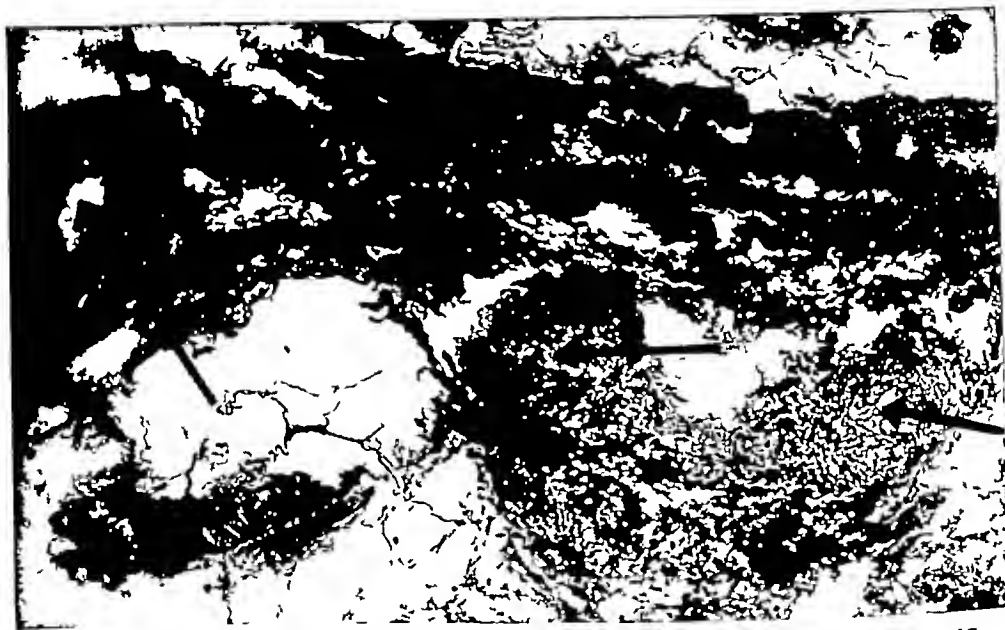


Fig 4 Adrenal gland Very markedly thickened vessels with much reduction of lumina (Case 6, second operation)

point directly and ultimately at the suprarenal glands, thus attempting vasomotor control. Josue in 1903 and later Vaquez were the first to associate the adrenals as a possible causative factor in malignant hypertension. Progressively abnormal low blood pressure in Addison's disease, the drop in pressure to normal following removal of adrenal tumors, stimulated the idea that if surgically the adrenal secretion and output is decreased, *ipso facto*, the blood pressure will be lowered and so stabilized. It may sound plausible, but practically applied it has by no means been proven so as yet.

There are other important and still unknown factors which enter into the

Later bilateral adrenal denervation was advocated by him, but detailed and ultimate results so far have not been published. Dr Crile's general conclusion being that denervation in hypertension has given disappointing results. Nor has this method gained support of other surgeons in the treatment of malignant hypertension.

A revised and direct attack was suggested in 1934 by DeCourcy⁸ which consists of a partial bilateral adrenalectomy, including both the cortex and medulla, a two-stage operation with an interval of three to four months, based on the hypothesis that essential and malignant hypertension is due to excessive secre-

tion of epinephrin by hyperplastic suprarenals. Hypertension being still the mysterious disease that it is with many debatable opinions as to its etiological background, the dogmatic statement cannot as yet be made that "hypersuprarenalism" is the primary and only cause of hypertension.

That the adrenals, however, play an important role in blood pressure control cannot be doubted as instanced in the progressive lowering of tension in Addison's disease and the acute and alarmingly keen drop in pressure in acute adrenal insufficiency sometimes following surgical trauma to the adrenals, contra, the phenomena of excessive rise of blood pressure during manipulation of the adrenal while performing adrenal denervation for recurrent hyperthyroidism.

While the analogy which DeCourcy^{4,5} draws between the overactive thyroid and overactive adrenal is questionable and yet to be proven, the *empirical* trial of partial adrenalectomy is worth-while in carefully selected cases of hypertension, being a direct attack on the gland secreting adrenalin, which has at least, if not altogether, some definite effect on vasomotor control. *It is, however, by no means devoid of danger*, for possible and unavoidable surgical trauma to the adrenals can cause profound and grave constitutional reactions from resulting hypofunction, and death from acute adrenal insufficiency.

Crile reports two deaths from operative trauma to the suprarenals following adrenal denervation, technically a much simpler operation than partial adrenalectomy. Both developed adrenal insufficiency. Autopsy showed, in one case, bilateral degeneration of the adrenal glands, in the second case, adrenal apoplexy, extensive hemorrhage within the medulla with necrosis of adrenal tissue. Rogoff⁶ reports a case of Addison's disease and death following adrenal denervation. I report death of Case 6 from acute adrenal insufficiency and progressive adrenal insufficiency in Case 1 several months after partial adrenalectomy.

The operation through an Alberran incision is not particularly difficult, usually technically easier on the left side, but should be performed *with great care and gentleness* not to disturb the blood sup-

ply of the gland, and accomplishes, if the assumption is correct, not only less adrenal output, but it denervates the gland as well.

It is timely to call attention to the anatomical fact that *in vivo*, the adrenal is never reposing directly on the upper pole of the kidney as pictured in all textbooks (Fig 5). This is probably the reason that the adrenal is never seen



Fig 5 Fairly constant anatomical location of adrenal, one to three inches of intervening perirenal fat between upper pole of kidney and lower margin of adrenal, blood supply and distribution of fine sympathetic nerve filaments derived from ganglion.

and rarely if ever injured during nephrectomy. The kidney is a comparatively freely movable organ. The adrenal is a very much fixed organ, well surrounded by fat, plastered down to the lumbar muscles by connective tissue and fine nerve filaments coming from the sympathetic ganglion supplying it, is one to three inches away from the upper pole, and often found implanted high up under the diaphragm. This distance is increased when the kidney is retracted

downward in order to gain approach to the gland. Due to its color and shape it is easily recognized after the periadrenal fat is separated.

One learns to palpate it and recognize it by its shape and flat rather rough triangular cortex. The part of the adrenal gland to be removed must be very carefully but thoroughly mobilized. In doing this the fine nerve filaments entering the under surface are severed either with fingers or sectioned with scissors. I have found the eight inch Allis clamp a very convenient instrument to grasp the gland with. I place a curved artery clamp on the outer half, removing that much or more, leaving the inner half which is attached to its blood supply. Often the gland is very friable and tears easily, necessitating the removal in sections. It seems that the crushing effect of the clamp is sufficient to control bleeding, but it is safer to use a running catgut suture. Rubber dam drain for three or four days to drain off exudate resulting from operative trauma is necessary.

The amount of adrenal to be removed to be of therapeutic value and *with safety* is still an unknown quantity. DeCourcy removed two-thirds to three-quarters in two stages and lately advocates a lapse of two to three months between the two stages based on the theory that in that time the second gland to be operated upon undergoes hyperplasia and hypertrophy. My observation in partial adrenalectomy so far has not convinced me of any macroscopical evidence of compensatory hypertrophy of the second gland.

While it is well-known that excision of one of "twin organs" produces hyperplasia and hypertrophy of the remaining organ (kidney, one lobe of the thyroid, testicle?), no proof is recorded of hyperplasia or hypertrophy having taken place in the adrenal after removal of part or whole of one gland. Though the two cases studied (5 and 6) are hardly sufficient to draw conclusions, the pathologist's report on part of the two adrenals removed four and six months after the part of the first was removed, showed that there was some hyperplasia and hypertrophy, which of course, may have existed at the time of the first operation.

Crile advocates in adrenal denervation, a safety period of about a week to ten days between two stages, so as to give the first denervated gland an "opportunity to make a physiological recovery," and where there is considerable systematic reaction, a longer interval period.

It is somewhat premature to accept the theory that the secondary rise in blood pressure after an initial drop following one-sided partial adrenalectomy is due to quick regeneration of the remaining adrenal or compensatory hypertrophy of the unoperated adrenal. Nevertheless, because of possible operative trauma to the remaining adrenal of the first side operated, the three to four month interval is an excellent suggestion, safe to follow.

The margin of safety after removing one-half or three-quarters of the gland leaving one-quarter or one-half of remaining gland to carry on function for normal living may be a good margin of safety for many, but may not be for the next patient. Lack of knowledge of the exact functional state of the remaining gland on the operated side adds materially to this uncertainty. If this remaining gland through operative trauma has been damaged, and atrophies, removal of too much gland on the second side may prove disastrous. (Case 6)

The often unavoidable surgical trauma to the remaining portion of the adrenal which is left after partial adrenalectomy, can cause temporary suppression of function. So far no recorded observation has been made of the possible amount of damage done or of its physiologic and functional recovery. Adrenal tissue, the cortex particularly, is supposed to rapidly regenerate, but this happens during normal physiologic function in an untraumatized gland. What happens in a surgically traumatized one?

Rogoff has described a "significant symptom," costolumbar pressure reaction, and interprets it as an evidence of progressive adrenal degeneration. He observed this symptom and suggests its presence in Addison's disease. To quote Rogoff:

The presence of this sign in Addison's disease may be interpreted as evidence of active inflammatory or degenerative processes in the gland. Cessation of these processes is followed by disappearance of

the symptom, and its reappearance indicates renewal of the process. If after having been observed repeatedly, the sign finally disappears as it does often in the late stages of the disease, it has been found generally that the gland has practically entirely degenerated or fibrosis has terminated the process.

If partial adrenalectomy will meet with success in the treatment of essential or malignant hypertension, the Rogoff sign and its interpretation should be of great value to determine the state of the remaining adrenal, after the part of one adrenal has been removed. Granting that Rogoff's observation of this sign is correct in Addison's disease, costolumbar pressure reaction should be of great guiding value to determine the safety of the second partial adrenalectomy.

The amount of gland on each side removed in five of my cases was more than one-half, and proved to be therapeutically and functionally the proper amount and within the limit of safety, but in the sixth following the first operation, not particularly difficult, symptoms of adrenal upset followed: low blood pressure, rapid pulse, high fever, cyanosis, mental apathy. Six months later, when the second side was operated, very profound constitutional symptoms followed with all the classical symptom complex of acute adrenal insufficiency, and death in forty-eight hours. Examination of remainder of second adrenal gland showed diffuse hemorrhage.

The pertinent question arises: How much surgical damage occurred to the remaining right adrenal at the first operation? Did it regain its physiologic function?

The second operation performed six months later was very simple, easy exposure, the gland was dissected very gently, only one-half was removed, and still death from acute adrenal insufficiency followed.

Symptoms of Acute Adrenal Insufficiency

Five to six hours following operation: rapid and soft pulse, low blood pressure (a drop of 100 to 150 points), widely dilated pupils, high fever (up to 106° F), cyanosis, general mental and physical

apathy, which gradually changes to semi-consciousness and coma, paralytic ileus, and dilated stomach with large amount of fluid content—later, blood pressure so low that a manometer reading is unobtainable, spasticity of muscles, all reflexes slowed, respiration may be elevated, and dark brown pigmentation of skin. *Treatment should be immediate.* Ice packs for fever—intravenous salt and glucose, 750 to 1000 cc or continuous, properly gauged by chloride and sugar content of blood. Replacement therapy by Eschatin (adrenal cortex) or the cortical hormone of Swingle and Pfiffner, carbon dioxide oxygen for cyanosis, ephedrin $\frac{3}{4}$ gr every three or four hours, high colonic irrigations and Levine tube drainage when indicated. Use of caffeine, sodium benzoate, and digofoline is questionable except when myocardial involvement and signs of congestive heart failure are present.

Blood pressure. The interesting observation has been noted that during the operation for recurrent hyperthyroidism, adrenal denervation causes a considerable rise in blood pressure simply by the handling and moderate trauma to the gland, in hypertension, with a greater amount of trauma to the gland, the tension drops many points, sometimes alarmingly so. This was observed in cases operated under avertin anesthesia.

Six cases experienced a drop of from forty to one hundred twenty mm systolic following the first operation, the diastolic usually less, then the pressure again rose to a higher level before the second side was operated, then again a comparatively good drop after the second side was operated, again a rise, then the maintenance of a fifty to one hundred twenty mm drop from the original level, but not permanent. In only two cases was there a sustained drop for about two years.

Van Slyke clearance. In all instances the clearance became much higher twenty-four hours after the first side was operated upon showing the effect of lessened contraction and spasm on the kidney arterial system. After a few days, there would be a drop in clearance, again a decided rise after the second partial adrenalectomy, then again a drop, then a leveling to much higher clearance than before operation.

Conclusions

From the pathological viewpoint the following conclusions seem justifiable

1 The cases dealt with in this paper are those of malignant nephrosclerosis (or malignant hypertension), i.e. a primary diffuse vascular disease "of which malignant nephrosclerosis represents the renal end-stage"

2 Clinically they were young persons (their ages ranging between 20 and 43), with marked hypertension (the average being about 250/150, a low Van Slyke clearance (20-30 per cent), and retinal angioathy

3 Without any attempt whatever at

drawing any conclusions, the following is set down just as an observation

(a) The lesions in the adrenals consist of marked thickening of the capsule and of the trabeculae, at times being very pronounced.

(b) The vessels, both in the capsule and in the periadrenal fatty tissue, as well as in the muscles and the kidneys show not the ordinary atherosclerotic changes but the thickening of the media, which, apparently, is not inflammatory but due to muscular hypertrophy. These apparently are the changes which are referred to as "productive endarteritis" ("accelerated form of arteriosclerosis" of Klemperer and Otani)

(c) No lesions referred to as "necrotizing arteriolitis" were noted

38 W 88 St

References

- 1 Crile, Geo W *Diseases Peculiar to Civilized Man*
- 2 Adson, Craig, and Brown *Surg, Gyn, & Obst* Vol 62, 1936
- 3 DeCourey *Ann of Surg*, 100 310, 1934
- 4 Idem *J.A.M.A.*, 102 1118, 1934
- 5 Idem *Amer Jour Surg*, December 1935
- 6 Rogoff *J.A.M.A.*, 106 279, 1936
- 7 Kummelsteil and Wilson *Amer Jour Path* 12 45, 1936

WHEN REAL DOCTORS ARE WANTED

"The Unsung Hero of the Great Flood" is the title of a three-page article in the April 1 issue of the *New York State Journal of Medicine*. This article is written from a description of Indiana flood conditions in our March JOURNAL, and it goes on to state that while the story is about Indiana, it applies equally well to flood conditions and medical relief in the states of Ohio, Kentucky and Illinois. The writer enthusiastically discussed the role of medicine in this, the greatest flood in the history of the Ohio Valley. We are grateful for the comment and wish that every member of our Association might read it. The

citizenry of this country occasionally wanders away from the beaten path and listens to the blandishments and "come on" arguments of the quack, the irregular, the patent medicine radio blah and the pseudo-healers, but we note that in times of stress and upon occasions when local and national disasters of various sorts threaten, the call is "Get the doctor," and they mean a physician, a Simon-pure M.D., a Man of Medicine! Never in the history of the profession has this call been made in vain in times of great need.

—*Journal of the Indiana State Medical Association*

HOW DO THEY DO IT?

Medals or ribbons or something seem due Rochester and Schenectady, which appear in the automobile death tables with actual reductions while other cities show a tragic increase. In the sixteen weeks ending April 10, Rochester had ten deaths due to motor accidents in the city, as against fifteen last year, and Schenectady had two

as against three last year. In contrast, Buffalo's fatalities rose from thirty-nine to fifty-four, New York City's from 226 to 302, Syracuse's from two to ten, and Yonker's from one to four. Albany kept level at four and four, and Utica at two and two. The figures are from the Census Bureau.

METHEMOGLOBINEMIA AND PRONTYLIN

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Does the use of prontylin tablets produce in the patient a methemoglobinemia?

* * *

G.H.P., a physician, was admitted to Post-Graduate Hospital on January 12, 1937, about 3 30 A.M. suffering from acute pain in left antrum region. Previous to admission patient had been taking care of himself at home, as he had been ill with influenza for nearly two weeks. Temperature on admittance was 100.4, pulse rate eighty, respirations twenty.

Treatment at home consisted of the following: January 2-6, patient stayed up and took three aspirins grv per day, three acetyl compound consisting of acetyl salicylic acid gr 3½, phenacetin gr 2½, caffeine gr ½—three per day, also took pill containing benzoic acid, one-two per day, and pill containing atropine—two per day—the amount in each case not known as it was an old prescription used previously. January 6-11 was in bed at home. Took aspirin grv, and acetyl compound tablets as described above three-four times daily. He took amytal grs 1½ at night. He used ephedrine inhalant as a spray, and took two-three of the benzoic and aspirin pills as described above daily.

The nose and throat intern was advised by me to give a four per cent cocaine and adrenalin pack in the left side of nose in order to establish better drainage from the left antrum. Ephedrine one per cent in normal saline was also given as a spray. Temperature at 7 A.M. was 101.4, pulse ninety-two, respirations twenty.

I saw patient first at 9 A.M. and found the left antrum extremely tender. Patient complained of severe pain in that area, in and about the teeth on that side, and in fact, the whole left side of his face. On examination of the nose, found inferior turbinate on the left side pressing over to the septum and filling the space, with pus oozing out of the middle meatus. The whole nose was so tender that I was unable to pack the left side, so I ordered gr 1/6 of morphine sulphate given, and began with the use of small tampons pressed out of a solution of ten per cent cocaine and adrenalin—half and half. After desensitizing the area, I did an antrum puncture on the left side, preferring this to irrigat-

ing through the natural opening, and washed out a fair amount of pus.

This was sent to the bacteriological laboratory for culture, the report coming back the following day, January 13, showing *Streptococcus hemolyticus*, of many colonies in one loopful of material.

At the time of admittance on January 12, I ordered aspirin gr x bicarbonate of soda gr x q 4 h, with forcing of fluids, and an ice cap to left antrum area to relieve pain, as needed for comfort. After the irrigation nose bled somewhat, and at 2 30 P.M. an adrenalin pack was lightly inserted. Later, at 5 P.M. a ten per cent cocaine pack was inserted in the left nostril and left there for ten-fifteen minutes.

I saw patient again at 6 P.M. and gave nasal irrigation. At that time, the returns showed a considerable amount of pus. The ephedrine spray one per cent in normal saline was used and this spray was used q4h throughout the illness. At 7 P.M. temperature 104.4, pulse 84, respirations twenty. At 10 P.M. nasal irrigation was given again. Temperature at that time 101.8, pulse 100, resp twenty-four.

January 13 At 4 A.M. temperature 101.4, pulse ninety, respirations twenty-four. Patient complained of great pain in left side of face, but refused medication at this time. At 8 30 A.M. nasal irrigation was given. These nasal irrigations were all given from right side forcing return through left side, thereby not carrying any infectious material backwards. At this time temperature was 102, pulse ninety-six, respirations twenty-two. At 12 P.M. codeine gr ¼ was given. At 4 P.M. cocaine and adrenalin pack was given, but area was so tender that gr 1/6 morphine sulphate had to be given in order to allow packing. A nasal irrigation was then given, and returns showed a considerable amount of pus. I then gave an argyrol pack, while mucous membranes were desensitized on that side, and left this in for thirty minutes. At 6 P.M., the patient complained of severe burning in the left side of the nose. Intern advised codeine gr ½ with luminal gr 1, at the same time a few gtt. of twenty per cent argyrol was instilled in left conjunctival sac, as patient complained of left eye irritation.

Prontylin was first used at 6 30 P.M., because the culture from the antrum irrigation had only been reported at 12 P.M. I discussed the use of prontylin with a professor of the nose and throat department who claimed good results in several cases, by using four tablets three times daily. This dosage was given.

At 7 P.M. nurse reported left eye swollen somewhat and reddened, with small amount of purulent drainage present.

January 14 At 12 A.M. luminal gr $1\frac{1}{2}$, triple bromides gr thirty was given for pain and sleeplessness, and prontylin tablets were again given. At 2 30 A.M., same night, temperature was 104.4, pulse 128, respirations twenty-six, patient became cyanotic, unable to breathe easily, rather frightened, and restless. Caffeine sodium benzoate half ampoule was ordered by his medical doctor, Dr. Currence, who had also been taking care of him, as I had been called to treat the sinus condition only.

At 9 A.M. a blood culture was ordered by a medical internist, and a bacteriologist began desensitizing the patient against serum. As soon as this was done, anti-streptococcus serum was given intravenously, although as yet there was no report of blood culture. Intravenous Streptococcus injections were continued for several days by the bacteriologist.

At 10 A.M. nasal irrigation was given, ephedrine spray was used, and argyrol grtt. twenty per cent. At this time all aspirin was ordered discontinued by me. At 12 40 P.M. codeine gr $\frac{1}{4}$ and luminal gr $\frac{1}{4}$ were given. Temperature 3 40 P.M. 101, pulse ninety-two, respirations twenty. Another medical consultant was called in at 4 P.M., and after careful chest examination nothing to indicate pneumonia was found. It was decided to discontinue any sedatives except codeine gr 1 with triple bromides gr 30, this to be given only when needed. Prontylin tablets were continued, nasal irrigation, ephedrine spray, argyrol grtt. twenty per cent, and ice pack to left antrum area also were continued. Patient remained cyanotic, particularly about the lips and seemed very exhausted. Sputum examination was ordered. Report showed sputum negative for pneumonia Types I, II, III, V, VII, and VIII. At 11 P.M. temperature 101.8, pulse 100, respirations twenty-six.

January 15 A roentgenogram plate of chest was taken, but nothing indicative of pneumonia was found.

January 16 The blood culture was negative after forty-eight hours, and was not positive at any time up to the time patient left the hospital. An oxalated blood specimen was sent to the laboratory for spectroscopic examination for sulphhemoglobinemia and methemoglobinemia, and returns showed methemoglobinemia. All prontylin was stopped by me at this time, although there was no literature known to us which stated this drug as a causative agent of methemoglobinemia. Also, all coal tar products were stopped.

Nasal irrigations were continued, patient placed on high caloric diet, and kept in oxygen tent, this latter for the purpose of trying to clear up cyanotic condition. Patient was kept in tent for two-three days. Temperature ran about 100, pulse about 100, respirations about twenty-two to twenty-four during this time.

The blood counts are as follows

		Erythrocytes	Leukocytes	Hemo globin %	Color Index
Jan 12	4,600,000	5,600	90	90	
14	4 350,000	13,800	85		
15	4 370,000	9,100	90	1 02	
19	4,220,000	7,450	77	90	

DIFFERENTIAL (count of 100)							
		Polys	Eosin	Bas	Monocytes	Sm. L	Large L.
Jan 12	87	0	0	2	2	2	
14	70	0	0	4	19	7	
15	85	0	0	4	12	5	
19	81½	0	0	1	14,	3½	

January 25 Another spectroscopic examination of blood was negative for methemoglobin. Urine throughout the illness was essentially negative.

Blood pressure on January 21 was 102/62. Temperature was normal from January 20 to 26, and patient was discharged on the latter date.

The questions are, has this patient an idiosyncrasy towards drugs, did the use of prontylin tablets together with the use of coal tar products before and after entering the hospital cause methemoglobinemia, does the use of prontylin tablets alone cause methemoglobinemia?

481 EIGHTH AVE., N.Y.C.
35-70 162ND ST., FLUSHING, L.I.

THE DOCTOR'S WIFE IS CELEBRATED IN SONG

A delightful feature of the annual meeting of the Woman's Auxiliary to the Medical Society of New Jersey was a

poem by President Herrman of the State Society, which he read at the luncheon of the Auxiliary.

PSYCHIATRIC TREATMENT IN AN INSTITUTION

Case of a Psychoneurotic Boy

SAMUEL Z ORGEL, M.D., *New York City*

Adjunct Psychiatrist, Mt Sinai Hospital, Psychiatrist Hebrew Sheltering Guardian Society, Pleasantville, N Y, and Hebrew Orphan Asylum, New York City

Charles S was nine years four months old when admitted to the Hebrew Sheltering Guardian Society at Pleasantville, in April 1929. Previous to his admission he had received psychiatric treatment at several hospitals. In 1927 at the first hospital, he was thought to be emotionally unstable and they advised removal from the home. In 1928 after a conference between the parent and the school, he was placed under observation in the Bellevue Psychiatric Hospital. He was under observation from March 31 to April 14, 1928, and diagnosed as emotionally unstable (postencephalitis?). A later neurological examination definitely ruled out the encephalitis.

The background of this boy is as follows

The father was born in Roumania in 1886 and came to U S when he was seventeen. He had always been in excellent health. At ten years he was obliged to work and help support the family. On his arrival in the U S with his mother and two sisters, he continued his education by attending preparatory school. His unhappy domestic life has prevented him from keeping up with his interests. Since the birth of Charles he has been playing cards and staying out late at night. His interest in his wife markedly diminished and his hate for Charles was expressed by repeatedly beating him. His lack of interest also extended to the other three children in the home. He admits that his wife does not know how to raise the children and has spoiled them by overindulgence.

The mother was born in Poland in 1894, and was one of seven children. She came to this country in 1911 and went to live with a sister who had previously migrated to the U S. She never had an opportunity to attend school, and supported herself by working in a sweater factory, earning about \$10.00 a week. She married to escape a life of drudgery and have a home of her own. She has always had a nervous stomach and

suffered from constipation. In 1924 and 1926 she had "nervous breakdowns" which she overcame by a short rest at home. She has never taken the medicines the doctors have prescribed for her nor followed their instructions. She has no interest outside of the home. She is attending the O.P.D. of a hospital where she has been diagnosed as a psychoneurotic. She is very much attached to Charles and caters to his every wish. Her overprotection of Charles and continual cursing has caused her husband to remain out of the home until late at night.

Marital relations of parents Mr and Mrs S kept company for three years before their marriage in 1916. During this time and before the birth of their first child they were exceedingly happy together. They regularly attended lectures, concerts, and the theater. With the coming of the children they could not go out together since the mother's freedom was almost entirely cut off. Mr S, although more intelligent than his wife, maintains the old-fashioned opinion that the full responsibility of the home and the children rests upon the wife. He feels that she is too devoted to the children and as a result he often stays away from home part or all of the night. He complains that his wife is a poor housekeeper and cook.

Siblings

Bella Born November 24, 1917, development normal. She has food fads and sleeping habits similar to Charles. Mother considers her easy to manage.

Charles His early developmental history was negative and he presumably got along well. He was thought to be a precocious child since he was able to sing songs when one year old. In his fifth year he suffered from several childhood diseases and his tonsils and adenoids were removed. He began kindergarten at five and school at six. His promotions were regular and he was thought to be a good student. He played truant frequently and would not attend school unless mother took him directly into the classroom.

Read before The Society for Clinical Psychiatry, New York Hospital, Westchester Division, October 15, 1936

The parents have found the boy difficult since infancy. He was always nervous, restless, and a nail-biter. His restlessness became more marked at bedtime so that it took him hours to fall asleep. He would refuse to go to sleep alone and cause a disturbance if made to do so. He slept with his mother until the eighth year and was then forced to sleep with father. Charles at nine years could not dress himself and was helped by his mother. He liked being treated like a baby and enjoyed sitting on his mother's lap and to be coddled like an infant. When he was thwarted he gave vent to violent temper tantrums which took the form of screaming, crying, kicking, throwing objects about the room, and smashing furniture. He would threaten to commit suicide by falling or throwing himself from the roof, and would make false attempts at carrying out his threat. He threw stones from the roof upon people passing in the street, breaking neighbors' doors and smashing windows.

The mother was very much afraid of him and acquiesced to his every wish. He would kick, hit, and pinch her. When he returned from school he would order his lunch and mother would immediately run out and buy it. Despite his attitude towards his mother, she enjoyed having Charles do the things he did. She was proud of the fact that he was known to the entire neighborhood and would recite the boy's latest escapades. Charles associated with boys older and bigger than himself and often fought with them as well as with younger boys. He was a poor loser and on such occasions would run home crying. The school could not understand his truancy since he got on well. In the classroom he was restless and talked excessively. This could be controlled by keeping him busy. He could not take criticism and became discouraged when he was told his work was not up to the mark.

Martha Born October 27, 1925, a spoiled child, drank from the bottle at the age of three years. She has the same food fads and sleeping difficulties as the other children.

Abraham Born 1929. Mother was pregnant with this child at the time Charles was being considered for institutional placement. It was shortly after this child's birth that Charles' behavior became more acute and he was finally placed in the Institution.

Paternal grandparents The father's parents were separated because they were unhappy together. His father remained in Roumania while his mother and the three

children came to the U S. His father was a happy-go-lucky individual who loved his freedom and did not want to assume any responsibility.

Maternal grandparents Both grandparents are dead. The mother's father died of asthma and complications when Mrs S was two years old. Her mother died of starvation during the war at the age of seventy.

Let us review the several factors considered as playing important roles in the development of Charles' problems. The mother found her husband adequate until the birth of her first male child, the patient. At this time she began to neglect her husband. The husband showed his reaction to his wife's neglect by complaining, neglecting her, and staying out late at night. In spite of the loss of her husband's love, we find that she was entirely given over to her child. He slept with her and displaced the father entirely as the mother's love object, thus completely infantilizing the child. This boy's real antisocial and destructive behavior began at the age of five when he not only suffered from several childhood diseases but also had his tonsils and adenoids removed. To this is added the fact that the mother gave birth to her third child, a girl. The mother's conflict in relation to these two children can be easily visualized—a boy whom she has constantly attended and slept with for five years, who has become ill, and a new born girl child, who because of her helplessness, must have the mother's attention. Charles evidently succeeded in holding his mother in spite of the newborn sister for he continued to sleep with her for the next three years. At about this time, mother became pregnant and then later gave birth to a male child. With the mother's acquisition of a new male lover in this newborn child, Charles was displaced from his mother's bed and made to sleep with his father. The child then began a new series of attempts to regain and hold his mother's love. He refused to dress himself so that his mother continued to dress him until his placement in the institution. This was an overt attempt to return to an earlier infantile period, as his rebellion against mother's pregnancy and later the newborn child. His behavior at home, at school, and in the neighborhood began to take on a more destructive and aggressive nature. Despite this, the mother fully glorified in and enjoyed the boy's notoriety. This was the time when the Bellevue Psychiatric Hospital made a tentative diagnosis of post-encephalitis. With the birth of the child, his behavior became unbearable and he was

placed in an institution where he could receive psychiatric treatment

The abnormality of the home setting and the major role it played in the production of this boy's antisocial behavior were readily recognized by all the agencies that contacted this family. The hospital that continued to treat this boy from August 1927 until his institutional placement, made a home visit to gain the mother's cooperation, but was so discouraged that they made no further efforts in this direction. It however, continued to direct its effort to the personal treatment of Charles. Other agencies that became interested evidently felt the same way about the mother and desisted in their attempts in this direction. It was for this reason that removal from the home and placement in an institution was advised where he could receive psychiatric treatment.

Parental Background

A proper understanding of Charles' problems necessitates a study of the parental background. From the meager information at hand we can deduct the following facts: we note that Mr S completely identified himself with his father. He, as his father before him, was uninterested in the children and home and only concerned with his own pleasures. We note too that at ten he was forced into the role of father and had to work to help his mother support the family. From the expression of the children it seems evident that mother had to play the role of both father and mother to them. Mr S did not have to compete with his father for his mother's love since father had definitely rejected mother. He was mother's love object and filled the place of father. Mr S in his own marital life continued this situation for they were happy until the birth of the children. He felt his wife had rejected him, especially for Charles. He began staying out late at night, playing cards and refusing to take any part in the bringing up of the children.

Mrs S identified herself with her mother who too had to bring up her family without the help of her husband. Mrs S's father had died when Mrs S was two years old. It therefore became necessary for her mother to play the double role of mother and father. Mrs S too had to play this double role in bringing up her own children for Mr S's attitude was that it was the wife's duty to bring up the children and care for the home, he was the provider. Mr S's inadequacy as a husband and lover to Mrs S is expressed in Mrs

S's complete absorption in her children, especially Charles, who slept with her for eight years. We also have a diagnosis of a psychoneurosis on Mrs S from the hospital OPD where she is being treated.

We can definitely see that the birth of the children instead of cementing the marriage bond tended to alienate Mr and Mrs S. The parents were unable to bring about the necessary rearrangement of affection and love called for by this event. Mr S rejected Mrs S and all of his children and sought his love in the outside world, while Mrs S overprotected and infantilized them, especially Charles, finding her love in her children. The reactions of both parents were neurotic.

Our early contacts with Charles plus a study of the foregoing factors made it evident to us that Charles' emotional development had been greatly retarded. He was still a very infantile child who had been overprotected by his mother and upon whom he looked as his personal property. His father he both loved and feared and justly so, for father beat and berated him. He hated his sisters and newborn brother.

We felt that Charles' reactions were protective in nature since they were based upon his feeling that mother had rejected him, that without her he could not hope to live. His being forced to sleep with his father after eight years in mother's bed must also have been accepted as a rejection for he was now at the complete mercy of the father whom he felt hated him. This complete rejection must have mobilized his fears and resulted in his aggressive activities by which he attempted to master his environment and so win back his mother to assure him of safety. These activities we consider adequate for one of his infantile emotional development.

This concept of Charles enabled us to plan his treatment upon his admission in April 1929 to the controlled environment of our institution. The psychiatric social worker's first contact was made with Charles at the reception house where he was tested mentally, his Binet rating was IQ 143. The cooperation of the school principal enabled us to plan Charles' program in accord with his high IQ. A cottage with the proper type of cottage mother was picked to facilitate his adjustment and evolution. Therapy at this time consisted of contacts by the worker about the institutional grounds and facilitating his participation in group activities.

Charles' aggressive behavior rapidly sank into the background. He seemed to have adjusted since he caused no trouble in the cottage or at school. The school reported

excellent progress and regular promotions. The cottage mother felt that he was a good boy, since he gave no trouble. A closer scrutiny, however, showed him to have become seclusive, most of his time being spent in reading or day dreaming. This seeming adjustment continued until the early part of 1931 when Charles, after a visit to the city developed scarlet fever and was removed to an outside hospital. He returned to the institution in April 1931, after three months' hospitalization. Several running away episodes then occurred, but only in the first one did he succeed in reaching home. His mother berated him and immediately returned him to the institution, as Charles said "without even giving him a hot meal." He now became the aggressive and destructive child he had been previous to his original placement in the institution. This necessitated the administration of a more active type of therapy by the Child Guidance Department.

During the early interviews we learned the reasons for Charles' seeming adjustment up to this time. He considered his placement at the institution an additional rejection by mother with a complete loss of her whom he had up to this time looked upon as a necessity for life. Mother had left him, life became an uncertainty, and as a result Charles withdrew himself and became mildly depressed, and it was this which was accepted by the cottage mother as an adjustment since he caused her no trouble.

The institution he evaluated as the hard, cruel, unbending father whom he could not rebel against without fear of punishment. The cottage mother he could not trust for she was identified with his own bad rejecting mother, while the harsh treatment he claimed he received from the first commissioner made him identify the commissioner with his father. In his reading and day dreaming he found an adequate escape in that he constantly thought of himself as the hero who annihilated the villain (father) and married the heroine (mother).

Our re-evaluation of Charles at this time made us feel that we were no longer dealing with a case of conduct disorder but rather a psychoneurosis in which anxiety, aggressiveness, a feeling of guilt, and a tic of the head as in negation were the outstanding symptoms.

At this point one might well ask what forces had produced so marked a change in Charles' behavior. Our material shows the following: the necessary infantilization during his prolonged illness plus mother's concern made him feel that he

has recaptured his former position of dominance in his family. As a result upon his discharge from the hospital and return to the institution he absconded only to find himself rejected by mother. Charles' prompt return to the institution by his mother must have been a shock, something he could not reconcile with anything in his past experience. Previously when ill mother had given him protection and love. He could not understand what had happened, and as a result anxiety made Charles react in the only way he knew which was by attacking. Charles felt himself exposed to an external danger, and in addition his narcissism had been injured. Charles' state therefore approximated that of a helpless child. Under such a sudden and violent transition the whole psychological structure loses its rigidity. This accounts for the sudden change of behavior from one extreme to the other where one group of feelings was replaced by another almost exactly the opposite.

Charles was taken on by the Child Guidance Department for active therapy, the worker was instructed to see the child every second day for one hour. Charles being a talkative and aggressive child, he was instructed to give his associations freely. The worker was to assume a friendly but detached attitude to the boy's associations. This friendly though detached attitude was supplemented by more active evidence of interest in Charles. He was helped with his school work, he played an occasional game of checkers with the worker, and was stimulated to take part in extracurricular activities about the institutional grounds.

Charles rapidly developed a compliant attitude towards the worker, and readily produced historical material, fantasies and dreams in which he expressed his overt fear of his father and sister whom he felt hated him and wished to separate him from his beloved mother. The mobilization of his fear of death, which the loss of mother meant, caused him to become aggressive and so to overcome the threatened danger in his environment. Charles was at this time expressing this same conflict in the cottage and school and attempting to solve it by his hyperactivity and aggression towards everyone. Great tact had to be exercised by the worker to gain the continued cooperation of the cottage mother and school teachers for Charles was very trying. In the interviews we had evidence of a growing attachment to the worker.

Transference manifestations soon appeared in the interview in which the worker was identified with mother with the ex-

pression of marked ambivalence and with father on a hate basis—Charles at this time expressed a death wish against the worker. The interpretation of this death wish on a transference basis caused a negative phase to appear. This resulted from so deep an interpretation being given too early in the treatment. His ego was not strong enough to accept such an idea in consciousness, so that it had to be repressed. His anxiety as expressed at this time was evidence of a mobilization of his fears, for he felt certain that he would be annihilated.

This impasse necessitated the use of a technic we have found most valuable in gaining the child's cooperation. It was evolved by Miss Julia Goldman, former head psychiatric social worker, now Executive Director of the Institution, and consisted of allowing the child to play the dominant role while the worker, pretending to be tired, reclined upon a couch. Charles soon became solicitous and inquiring, and before long assumed the role of a parent, revealing to the worker many long repressed difficulties. With a rapport thus established, and still in the recumbent position, the worker found himself able to ascertain and discuss freely many of Charles' long-suppressed difficulties, this in spite of Charles still retaining the parental role. This rapport then enabled the worker to continue the analysis by means of play technic.

Charles in his activity with the toys, worked off his aggressiveness in playing at destructive warfare. On other occasions he played house and helped mother raise the family. A change was noted in the boy's attitude towards institutional life. He became friendly and cooperative in the cottage and in school so that he was elected president of his class. He entered into institutional activities and excelled, winning many prizes for his cottage. He also became friendly with a girl and was pleased with the friendly attitude of the other children towards him. Charles had now ceased to be a problem in his institutional environment. Formerly he had acted out his conflicts in the outer world, but now this had ceased and instead took place in the therapeutic situation with the worker. These conflicts Charles expressed by historical production from infancy and childhood, in fantasies and dreams of his great powers and by acting out old love and hate situations by the use of toy materials.

A new phase had supervened in the treatment, the worker had now become identified with Charles' parents and Charles transferred on to the worker all of his in-

fantile strivings, his loves and his hates. This was the "transference" and the worker utilized it for the boy's good.

A new element entered when Charles' parents asked for his return home. We feared to allow this since we knew of the obstacles that had been encountered by all the agencies that had attempted to contact the home, before Charles had had to be removed to the institution. We were also aware of the fact that Charles' insight was superficial and that he was still a dependent child and in need of parental love and protection. In spite of our advice to the contrary Charles was discharged to his parents in October 1933.

For the first three months following Charles' return to the home, he was accepted into the world from which he had previously been rejected. His sister became jealous of the attention he was receiving and accused him of hitting her. Mother entered the picture too and once more tried to reduce him to the position of being her beloved baby. Upon his refusal and rejection of her she beat him and accused him of beating her. This increased father's wrath against him and finally led to actual fist fights between the two. He again became the talk of the neighborhood and played truant from school. The mother complained to the school and a conference was held at which the boy begged to be taken to court and returned to the institution. Charles was readmitted to the institution in June 1934, nine months after his discharge.

A period of maladjustment within the cottage followed his return to the institution in which aggressiveness was most marked against the cottage mother, and the other children. However therapy soon removed this to the analytic room and the interviews became the place for explaining his aggression and the worker the recipient. He once more proceeded to work through his hate for his father, mother, sisters, and brother with a great display of emotion and evident emotional insight. He was able to understand and interpret the material he produced and see the transference identifications. With the gaining of this new and deeper insight, his anti-social behavior ceased entirely both in and outside of the interview. He realized the futility of attempting to master his environment through aggression and destruction and began to face his problems and react adequately to them. He became the model of institutional adjustment in his cottage, on the grounds and in school.

The psychiatric worker in addition contacted the family and did intensive work

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SEPTICEMIA FOLLOWING ACUTE SINUSITIS TREATED WITH SULFONAMIDE COMPOUNDS

J COLEMAN SCAL, M D , F A C S , *New York City*

From the Otolaryngological Service of Dr S J Kopetzky, Beth Israel Hospital

Recovery

Sulfanilamide, Para-Amino-Benzene—Sulfonamide, (Prontylin) and Azo-Sulfonamide (Prontosil) have been in use now for practically three years. The remarkable results obtained certainly warrant its use in any streptococcic infection. Its action is derived from its ability to inhibit the growth of hemolytic streptococci by its apparent bactericidal effects on the blood. This is accomplished by stimulating phagocytoses to such an extent that they easily inhibit or destroy the streptococcus.

In the following case reported azosulfonamide in the form of Prontosil and para-amino-sulfonamide in the form of Prontylin were administered, the former intramuscularly and the latter by mouth

Case Report

M G, female, age forty-two, practical nurse by occupation. Family history irrelevant. Past history negative except for a nasal operation performed fifteen years ago. Present illness dates back to twelve days prior to admission to Beth Israel Hospital when she had been ill with cough, headache, temperature of 101° F, and nasal blockage and discharge. Two days later she developed an O.M.P.A. in the left ear and a paracentesis was performed. The acute upper respiratory infection had grown progressively worse until January 17, 1937, when she was admitted to the hospital with temperature of 104, frontal headache, nasal discharge together with profuse aural discharge from the left ear.

Examination of the nose at this time revealed both nostrils filled with pus, the mucous membrane congested and swollen, and the nose completely blocked. The right ear was normal but the left showed a perforation in the lower posterior quadrant which was discharging freely. There were no mastoid signs or symptoms.

Treatment consisted in adrenalization and gentle suction of the nose at frequent in-

tervals, inhalations of Tincture of Benzoin Compound and instillation of boroalcohol drops in the discharging left ear. The night following admission the temperature rose to 105° F and was followed by a severe chill with a drop in temperature to 99° (Chart I). A blood culture taken immediately showed three colonies of streptococcus hemolyticus per c.c. increasing to twenty colonies in the culture taken five days later (Table I).

The blood picture showed the red blood cells gradually decreasing from 5,000,000 to 3,000,000 and the hemoglobin from eighty-two to seventy-two per cent. At the height of the infection the polys and staff cells were very high. There were thirty staff cells with a poly count of eighty-eight and a great number of toxic polymorphonuclears the day after the first culture. The temperature fluctuated from 100 to 105° becoming normal on February 22, and remaining so until date of discharge.

X-rays taken on January 18 showed the frontal sinuses undeveloped while both antra, the ethmoids, and sphenoids showed an inflammatory involvement, more pronounced on the right side. The mastoid cells were of the small pneumatic type with no destructive changes present. X-ray of the lungs showed no pathological condition except for some slight thickening of the pleura of the left base. Further x-rays of the sinuses taken on February 2 showed the frontals rudimentary while all other sinuses were involved by a suppurative process.

Nasal treatment consisted of puncturing and washing the right antrum, suction of the right sphenoid and gentle suction of the nose followed by ephedrine instillation and short wave treatment.

On January 21 a complication occurred in the form of thrombophlebitic-metastasis of the right wrist. The wrist became swollen and painful and Dr Harry E. Isaacs was called in consultation. He said he believed there was probably some bony destruction present in the carpus which accounted for the severe pain. He suggested immobilization with a splint and later a plaster cast.

The aural infection present in the left

with them. At the end of ten months we felt they had developed sufficient insight for a partial change of attitude. This plus Charles' new insight made us feel safe in once more discharging the boy to the home, where he has continued to adjust.

It is self-evident from this case history that the family pattern of these parents played the major role in the production of this boy's behavior problems. The mother's intense and continuous infantilization of this boy prevented him from making the necessary adjustments to his environment. His instinctual urges persisted in their original state up to his eleventh year and were expressed in his overt destructive behavior against his environment. There was no necessity for him to live through an Oedipus conflict for there was none, he was mother's husband and slept with her

Father had willingly left mother to him. As a result the latency period was greatly delayed and only made its appearance with the production of the necessary identifications and sublimation while under psychiatric treatment. The psychiatric treatment gave this boy an opportunity of overcoming in part his faulty environmental development. He was given the opportunity of reliving some of his many conflicts and helped to solve them on a higher, more acceptable social plane. He was provided with adequate ideals to replace his own inadequate neurotic parents. This allowed him the necessary means of identification as well as the means of living through in fantasy a normal Oedipus conflict and to establish the latency period with the necessary sublimations.

667 MADISON AVE.

SERUM IN PNEUMONIA

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it.

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 8—Incorrect Use of Type I Serum

Report from the records of the Meadowbrook Hospital by George Jaspin, M D, Department of Pediatrics, Hempstead

A D white male, 8 years old, admitted with a story of sudden severe, right chest pain, fever and vomiting twenty-four hours before admission.

He was admitted at 8.20 P M and physical signs of early pneumonia in the right chest were found. Temperature 104.2, pulse 130, respiration 30. Typing revealed a few Type I pneumococci.

He was given 6250 units of type 1 State antipneumococcus serum at 10 P M, 10,000 at 3 A.M., and 10,000 at 8 A.M. The temperature rose to 105 by 8 A.M.

The patient was retyped and many Type V's and a few Type I's found.

The patient was then given Type V

Lederle Serum U10,000 and the temperature promptly fell to normal and stayed there.

X-rays taken two days after admission revealed right upper lobe pneumonia.

The above case illustrates an interesting point regarding the administration of anti-pneumococcus serum. The symptoms of only twenty-four hours duration favored an immediate response to Type I serum, which was not noted in this case. A retyping then showed a Type V pneumococcus.

In such cases where a definite improvement is not shown to Type I serum, the fault may often lie in attributing the etiology to a Type I organism instead of the correct one. It has been our procedure to retype any case where the response is not definite and the organism is usually found to be other than a Type I.

CASE RÊPORT—SÊPTICEMIA

June 15, 1937

ear cleared up by February 20 at which time the perforation of the drum was closed. No pain could be elicited on pressure over the mastoid.

Consultations were held with Dr S J Kopetzky who did not find the paranasal sinus infection sufficient to account for the character of the temperature, the chill, and the increasing staff cell counts. Dr L Friedfeld suggested that the symptoms indicated a thrombophlebitic condition without localization of the focus. He ruled out the chest findings as not sufficient to account for the present symptoms. Dr A. A Epstein was in accord with Dr Friedfeld's findings.

Treatment with the sulfonamide compounds were commenced on January 19 when five cc ampules of Prontosil were administered intramuscularly twice daily and Prontylin tablets of five grains each

were given by mouth every three hours. This treatment was continued until the patient's temperature reached normal. It was discontinued on February 20. At the time of discharge on March 4, the patient's wrist was improved but she was referred to the Physiotherapy department for further treatment. The left ear was entirely healed and the sinus involvement cleared up.

Conclusions

While this chemotherapeutic agent is being tried and exploited it should be borne in mind that it is not a specific for streptococcus infection. Sulfonamide compounds do not act directly on the organism but in some way influences the action of the body so that it produces a

TABLE I

	Vol c.c.	Sp gr	Reaction	Color	Albumen Gms %	Glucose Gms %	URINE		Ind.	Casts No. & type	R. B. C.	W. B. C.	Epi- thelium	Crys
							Dia	Benz.						
Jan. 17	0.14	1.014	Alk.	Yel.	0	0	Benz.	Neg	0	0	0	0	0	0
19	Cath.	1.020		Am.	Hvy tr	0	Benz.	Neg	Occa- gran	0	0	occ. sq	0	Mu- cous
	Eryth. (No. in cu. mm.)	Hb	Leuk. (No % in cu. mm.)	Total % Poly	Mono	Staf	BLOOD		Bas	Eos	Mono. S	Mono. Mon	Plate	Abn forms
							Poly	Seg.						
Jan. 17	5 02	82	10 800	85	15	6	79				6	9		
18	5 05	80	20 050	92	8	24	68				5	3		
19	5 00	84	20,450	88	12	30	58				11	4		
20	5 05	80	15 100	82	17	26	56				11	6		
21	4 92	80	9 300	83	17	21	59				6	9		
22	4 85	80	11,150	87	13	15	71				4	3		
23	4 80	85	10 850	90	16	9	78				13	2		
24	4 82	82	16 300	84	15	9	75				18	2		
25	4 85	84	15 250	85	20	11	69				17	3		
26	4 83	83	14 920	80	19	10	70				20	2		
27	4 78	80	17,785	81	20	10	70				16	2		
28	4 74	76	16 820	80	22	10	71				17	2		
29	3 76	69	12 500	78	18	10	71				16	6		
30	3 35	70	10 600	82	20	10	72				14	4		
Feb. 1	3 30	67	11,390	80	18	10	73				19	4		
2	3 42	72	14,220	82	20	12	70				17	6		
3			13 600	80	18	12	70				17	6		
4			19 250	82	21	9	71				20	5		
5			17,245	79	21	8	66				20	5		
6			14,225	79	26	8	67				20	5		
7			13 890	74	25	9	69				20	5		
8			13 500	75	22	4	78				20	5		
9			14 540	78	16						20	5		
10			10,900	84							20	5		
11											20	5		
12											20	5		
13											20	5		
14											20	5		
15											20	5		
16											20	5		

BLOOD CULTURE

Blood grouping Four (4) Moss

Jan. 18 Streptococcus hemolyticus 3 colonies per c.c.

22 No growth

23 Streptococcus hemolyticus 20 colonies per c.c. after 18 hours incubation.

25 No growth

Feb. 1 Streptococcus hemolyticus in one flask

Feb. 1 Icteric Index 12-9

CHART I—TEMPERATURE

DATE: JANUARY 1917

ROOM: 100

100°

95°

90°

85°

80°

75°

70°

65°

60°

55°

50°

45°

40°

35°

30°

25°

20°

15°

10°

5°

0°

-5°

-10°

-15°

-20°

-25°

-30°

-35°

-40°

-45°

-50°

-55°

-60°

-65°

-70°

-75°

-80°

-85°

-90°

-95°

-100°

-105°

-110°

-115°

-120°

-125°

-130°

-135°

-140°

-145°

-150°

-155°

-160°

-165°

-170°

-175°

-180°

-185°

-190°

-195°

-200°

-205°

-210°

-215°

-220°

-225°

-230°

-235°

-240°

-245°

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-255°

-260°

-265°

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-1010°

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-1040°

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-1100°

-1105°

-1110°

-1115°

-1120°

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-1135°

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look other symptoms which, on thorough examination, will prove to be those of a pulmonary process or cardiac disease. One may find some definite metabolic disturbance, diabetes, or arthritic changes where one expects them the least. Or the complaints are related to bad habits in sleeping, eating, and drinking. Or there is overwork.

In somatic cases a thorough search may clear up the cause, although it may be of partial help only in curing the patient's mind. In psychosomatic states, where the physical etiology is difficult or impossible to establish, the patient must be treated as a neurotic, attempting whether we want to or not, at the same time to correct his living errors. But even where we are certain that the condition is entirely mental or psychological, we cannot dismiss the patient—and he is ubiquitous, he is legion—as a “crank,” or tell him he is “only nervous.” Nor should we blame him for our incompetence. This will never solve the problem. In the first place he will remain unconvinced and doubt the doctor's ability. And, he will have the right to ask “Why not do something for my nervousness, then?” Or “What am I to do for my ache, or burning, or depression, or restlessness—real or unreal?”

The accident, near accident, or the healed sickness has left an imprint. It has released something that was latent, unknown and hidden. It has changed the well adjusted individual into an unadjusted person. It has made him unhappy, or as the case may be, rather happier if he enjoys his complaints and the attention he gets, and feels comfortable in this situation.

All illness makes us more selfish. In proportion to its intensity it separates us from the world. But adequately balanced—that is, optimistically inclined—the mind disregards and suppresses a good deal of physical ailing and limits its effects, so that emergence into a cure is possible and the joy of living accelerated again.

We may safely say that a *physical sickness is not cured until it is mentally healed*.

The pessimistic mind holds on to illness after it is gone. It throws a long shadow or a penumbra, from which the patient cannot or will not come out. He is tuned up to illness, he is inebriated with it. Inertia keeps him in it. Is not persistence in a state of rest or motion, unless checked by some force, a universal law? Why can we understand the continued production, and sometimes detrimental overproduction of bone tissue after a fracture, and not the mental disorder of the realm of a post-malady? This disturbance does not necessarily indicate a sick mind, but a mentality

full of ideas of sickness. Perhaps the word *nosopsyché* would describe it if the “soul” were not so vague, so loose a term, especially with its ancient, unscientific implications. *Nosopsyché*, sickness-mentality, is better.

A carpenter, large, powerful—“so strong,” he was described by an informant, “you couldn't kill him with a mallet”—fell from a scaffold but was not injured, which he could not believe. After many changes his complaints finally settled to epigastric pains. He had been examined and re-examined in institutions and by private physicians. He knew all the hospitals, and the gossips about them and the most famous doctors of the city. He was familiar with medical terms and looked with contempt upon any young interne who dared to ask him questions about his symptoms. From a diligent, responsible, self-supporting worker, he degenerated into a shiftless beggar living from his friends' alms and spending one night here and one night there. When this examiner saw him, the patient slept on the hard bare counter of a relative's store. He respected surgery, and for months insisted that he needed an operation until he succeeded in fooling a surgeon into an exploratory intervention, which revealed nothing. From then on the patient, proud of his scar, showed it to all of his acquaintances. His complaint, however, was the same as before. During our conversations, I learned that some time before his accident he was repudiated by a girl he loved. She married somebody who died long ago, but she remained a widow. He was advised to go and see her. At first incensed, he later agreed to my suggestion, and after various events she accepted him, and his problem was solved. He was cured and really metamorphosed into his former self.

A bookkeeper, who being unemployed had to work in a CCC camp, claimed to have been mistreated and beaten up by the boys. The camp doctor gave him some hypodermic injection. Since then he had “two kinds” of attacks,” one of unconsciousness and one of precordial pains which he claimed occurred at different times. They were treated separately, although they really belonged to the same condition, hysteria, the “pain” being the preliminary symptom or a sort of aura. Hypnotism, electric shock, the entire neurological-pharmaceutical-armamentarium, the whole gamut of physical therapy were administered. No result. No improvement was seen from a treatment for angina pectoris. Bodily, he was well but questioning revealed that he suffered from a sickness-

phagocytosis of streptococci in a few hours after administration and the blood assumes a strong bactericidal power

The dosage of Prontosil in a five cc ampoule can be injected intramuscularly three times daily. In extreme cases and in obese patients ten cc can be used with impunity. Prontylin tablets can be given at the same time to supplement the Prontosil. One or two tablets given every four hours are sufficient. The dosage should be reduced and the interval lengthened as the patient improves.

These compounds are quite safe in administration to humans as the toxicity is very slight, the dye appears in the urine

in about ten or fifteen minutes and stains it red. The only ill effects that have been reported are some renal irritation in the form of albumin and some epithelialized red blood cells as well as nausea and faintness. Saline laxatives should not be given during the administration of the dye. Overdosage and long continued administration may result in mild jaundice.

27 W 96 Sr

References

- 1 Domagk, Gerhard *Deutsche Med Woch.*, Feb. 15, 1935
- 2 Long, Perrin H and Bliss, Eleanor A. *J.A.M.A.* 108 32, 1937
- 3 Dodd, E. C. *The Practitioner*, Nov 1936.
- 4 Rosenthal, Sanford M. *Public Health Report* Jan 8, 1937

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, D R P H, *New York City*

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Nosophrenia

It is well known that after accidents, whether followed by injuries or not, some patients remain with a mental trauma from which they cannot recover. The situation is worse when complicated by trials and litigations.

But a similar condition develops in certain people after a physical illness, even after a complete cure. The somatic pathologic state, although temporary, has had the effect of injuring the mind of the patient who undoubtedly was neurotically predisposed, or whose life forced him to subconsciously get hold of an excuse for a neurosis. Very often the condition is so little of a disease that it does not deserve a name and it cannot be classified anywhere. It is not a true, rounded-out psychoneurosis, although it may belong as it were, to a sub-section of the latter. It is a slight transition case but by no means transitory, and it spells a great nuisance to both the patient and his immediate environment.

Just as the person who has fallen from the train and who cannot point to any injury, will not believe that nothing has happened to him, so the same type of indi-

vidual remains in doubt as to his healing after an acute sickness. Perhaps, after all, such patients are not entirely wrong. The body may be all right, but the mind may have been wounded. Why do so many men, after their return from the battlefield or trenches "without a scratch," suffer from no other consequences than that of just having been in the fire close to danger and death? Is not fear, fear of anything, whether based on true or imaginary facts, an important trauma or a factor in causing a mental trauma?

Of course, we have the hypersensitive person and the perpetual complainer who will be excessively frightened by any unpleasant event in their lives, or who will unduly exaggerate some real trouble.

It is not always easy for the physician to determine whether organic pathology is present or not. The very behavior and attitude of the patient may mask something very important. We should not judge him from mere appearances or impressions. He may persistently complain of some general vague aches, perhaps with an accentuation in the chest or dorsal region, and over-

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EDITORIALS

William A. Groat, President-Elect

At the recent meeting of the House of Delegates, Dr. William A. Groat, well known physician, clinical pathologist and educator, was elected to the position of President-Elect.

He graduated from Syracuse University College of Medicine in 1900. His advance in his chosen field was rapid and his contributions to medical science and medical literature have received international recognition. He entered the World War as a captain in the U. S. Medical Corps and was discharged from the Army at the end of the war as a major, and since 1921 is a lieutenant colonel in the U. S. Organized Reserves.

His manifold activities are shown by his appointment by Mayor Forbes of Syracuse to the secretaryship of the Syracuse Public Health Committee of which he subsequently became chairman.

He has been president of the Syracuse Academy of Medicine, the Central New York Medical Association and he presided at the Fifth District Branch Meeting of the Medical Society of the State of New York. He served a long apprenticeship in the State Society under the chairmanship of Dr. Thomas P. Farmer on the Committee on Public Health and Medical Education. He has been Chairman of the Committee on Scientific Work since 1933.

Thus another man has been elevated after long apprenticeship and work for the State Society. We congratulate Dr. Groat upon his election and look forward a year hence to his assuming the presidency with confidence that the great traditions of the past will be continued under his leadership.

Social Security Upheld

In the short time since the Supreme Court's affirmation of the Social Security Act, a strong movement has developed to extend its benefits to millions now exempt. What effect will this have on the prospects of compulsory health insurance?

In "Social Security," Maxwell S. Stewart, an outspoken advocate of social legislation, frankly admits that "insurance" in the true meaning of the word is not the goal. "Insurance not only implies the

impractical actuarial approach but may be easily used as a pretext for placing the entire cost of security on the underprivileged."

This is confirmation, from an unexpected quarter, of an argument that medicine has repeatedly advanced. Since compulsory health insurance is actuarially unsound and the worker overpays for what he receives, why preserve the pretense of an insurance system? In practice the

psychology due to a great frustration, a deep disappointment in his younger years. The facts that had led to his present condition were analyzed one by one and he was shown how foolish it was to let them mar his life. Then the attacks began to weaken, and although so far they have not disappeared, they have diminished much in frequency and intensity.

A young lawyer had an appendectomy performed, but as the trouble was elsewhere he was not cured. He suffered from headache and somnolence, and nobody seemed to make the right diagnosis or to find the proper treatment until one physician suggested some plain therapeutic measures that cured the patient as far as his symptoms were concerned. He entered, however, into a new phase of his illness. His mind refused to accept the cure. He somehow felt that his sickness was unfinished, first, because the treatment was modest and not spectacular, and second, because as he said "it was too good to be true." Only after being shown convincingly, in several sessions, that there was no disease and that he had remained in a mental state where sickness was a sort of necessity, did he understand his condition and consider himself healed.

A woman, otherwise in good health, suffered from a series of boils, a mild furunculosis, until she was well and stayed well. This, however, did not satisfy her. She feared that her blood was "unclean," which led her to other complaints and to suspicions of diabetes, cancer, and so on. After these were dispelled she claimed to suffer from "difficulty in swallowing," "her eyes were bulging out," "her pulse was rapid," and "she had an internal goiter." The truth of the matter was that she was close to fifty, her children were of an age when they did not need her, and she had nothing to do. She was unhappy. When she improved, I thought that was due to my treatment but I was mistaken. Meanwhile her husband had had business deficits and had to open a very small store without outside help where our patient's services were in demand. Now she was busy and useful, and she forgot her complaints. The economic depression had cured her personal depression.

Another patient broken down by the depression, was a magazine illustrator with

no orders. He was too proud for cheap and uncongenial work. At the first occasion he became nosophrenic (sickness-conscious). He had a pain in one sole due to callosities. He was sure, therefore, that he suffered from endoarteritis obliterans, about which he had read. He began to limp and refused to go out of the house. Meanwhile he and his family became poverty-stricken and were dispossessed. But nothing could change his convictions until he was persuaded to swallow his pride and to work as a commercial draftsman. As soon as he was able to make a living, he was mentally well. For a time his case was similar to the more celebrated American landscape painter Blakelock, now dead, who starved with his large family, and whose recognition came too late, when in an institution for the insane.

A woman had an appendectomy, and her surgeon told her afterwards that the operation had been unnecessary because the appendix was found to be normal. Of course, we owe our patients the truth, but once an error has been committed it cannot be repaired by another blunder. The surgeon should have been extremely careful in the first place, but if he failed he should have kept the secret to himself. In the case at hand he had to deal with the kind of patient who could not withstand the shock of confession. She developed a general fear of disease due to the lack of her healthy appendix and was sure that her future children were doomed. The psychiatric dispensary where she went, did not help. The two doctors assigned to her case in turn, provoked no transference or even simple confidence. One was a newly immigrated foreigner whom she could not understand. The other was an incompetent beginner in psychiatry. (And by the way, these transition cases coming to out-patient clinics deserve specialists with at least as much training as the experience of the inside workers.) As a result this patient was even more alarmed, "not even the men to whom I have been sent can cure me," she said. Only with the greatest difficulty and after the birth of a healthy baby, the conception of which was advised by the examiner, was she cured of her fears and anxiety.

. . .

Truth is relative, and under certain circumstances, harmful. When exaggerated in someone's mind, it becomes a lie.

611 W 158TH ST

of economic and educational opportunity, who will make the new discoveries that promise so much to surgical safety and comfort?

Anesthesia is still in its infancy. To realize its tremendous potentialities, requires the devoted, enthusiastic service of skilled practitioners. Today able men are discouraged from entering the field by the trespassing of nurse anesthetists, who compete on the basis of lower pay to compensate for their inferior qualifications.

Advances in anesthesia are an important factor in surgical progress. The future of surgery, no less than of anesthesia, demands that practice of the latter be limited by law to trained physicians.

Provision for Medical Care, Principles and Proposals

We desire, at this time, to call attention to the Report of the Special Committee to Consider Provision of Medical Care which was recently adopted by the House of Delegates of the Medical Society of the State of New York.

Both the principles and proposals with their qualifying clauses, and the Report of the reference committee to which they were referred are to be published in this JOURNAL. The recent meeting was so fruitful of many things, particularly as regards progress in paramedical affairs, that we will reserve comment on these matters to some future time. At the present time we desire only to call attention to their publication in the next issue.

Speaking of Diet

There has been thrust upon us, within our memory, the importance of realizing that what we eat may, and perhaps does, influence the comfort and duration of our sojourn on the planet Earth. The nephritic, the diabetic and all the other "ics" can prolong their stay by a strict adherence to a nutritional régime abounding in sacrifices. On the other hand, the tuberculous, the scrofulous and their allied "ouses" strengthen their toe-hold by indulging in a veritable orgy of foods.

What of us who belong to neither the "ics" nor the "ouses"? It would seem that even though we are up-and-about, we must take heed lest what we put into our stomachs does not impair, retard or in other ways modify our efficiency as members of the human race. According to Lusk¹ "carbohydrates are the most economical of foodstuffs, both physiologically and financially." Pollack and Dolger² tell us that mechanical efficiency is greatest with a high carbohydrate diet, and state furthermore that "a high protein diet is a luxury and in times of economic stress is an unnecessary indulgence." Heil, somebody.

But we want steak, preferably fillet mignon. If we can't have steak, any of the other proteins on the menu will provide an acceptable second choice. And economic stress be damned as long as hot-dogs and hamburgers are available to the protein-minded for a thin dime, a tenth part of a dollar.

However, the spirit of compromise tempers our belligerency. Having vented our spleen, we now feel like the millionaire who entertained his impoverished friend during an evening repast at his home. The poor devil, seeing his rich host served by his butler with a sumptuous steak, started drooling at the mouth. With the passing of time and hunger having conquered his better manners, he anxiously inquired—"Are you going to eat that steak alone?" Whereupon his monied friend replied, "Of course not! I'll eat this with potatoes!" And that's what we call a balanced diet!

CURRENT COMMENT

"* * * THE PROPONENTS of sickness insurance are social uplifters, or job perpetuating politicians, idealists, pseudo intellectuals or theorists who would wreck a nation in furtherance of a theory, even if it took a thousand years to prove they might be correct—or wrong * * *

"Has the State ever shown anywhere that

¹Lusk, *Science of Nutrition* 4th Ed., 1928

²Pollack, H., and Dolger, H. *N Y S J Med*, 37, 633 Apr 1, 1937

latter has always proven to be an excuse for an unnecessary, expensive bureaucracy and a cloak for political domination of medical practice

Once we frankly acknowledge that medical care for the indigent and near-indigent is a responsibility of government, the way is clear for consideration of the means of furnishing this service without recourse to the deceptions and fallacies of compulsory health insurance. The Medical Society of the State of New York has taken the lead in an attempt to formulate the principles of a suitable public health policy and establish cooperation with the governmental agencies concerned

Responsible public officials realize that compulsory health insurance would necessitate oppressive taxation without commensurate benefits in return. They have begun to understand that no system of medical service can promise success over the opposition of the medical profession. If, in spite of this knowledge, some of them have lent a responsive ear to propagandists for obligatory pre-payment, the failure of physicians to take an aggressive stand has given them an excuse for yielding to political pressure.

The action of the Medical Society of the State of New York at its recent Annual Meeting has taken away that excuse. It announces the determination of organized medicine to establish a public health policy which recognizes both the medical rights of the under-privileged and the economic rights of the private practitioner.

John D

The medical profession of the entire world is deeply affected by the death of John D. Rockefeller, senior. By his foresight and action, the peoples of this earth have been relieved of many of the pestilential diseases which wrought havoc among them. His generosity was responsible for the creation of the one outstanding force to combat the scourges which from time to time, descend upon us. Most of these, through the agencies he endowed, have been conquered.

Space does not permit us to itemize the innumerable accomplishments of the Rockefeller Institute, nor is it sufficient in scope for us to enumerate the distinguished medical men who so nobly gave of themselves that an ideal might be accomplished. Unhindered, unchallenged, and free to carry its work forward to even greater glories, the Rockefeller Institute will ever stand as a tribute to a great humanitarian.

Looking Ahead

The valuable studies in anesthesia presented at the Annual Meeting of the Medical Society of the State of New York justify the profession's demand for limitation of this branch of practice to qualified physicians. The constant discovery of new drugs and adaptation of old ones to produce or aid in the development of anesthesia, demand informed, discriminating medical opinion to sit in judgment.

It is not enough to know how much of a particular substance is commonly administered and by what technique. The skilled anesthetist must understand the effects of the drug he is administering on all the tissues of the body. He must be able to gauge the individual patient's response and detect the earliest signs of distress. If the anesthesia is borne poorly, his medical knowledge and ability must make up for the patient's constitutional weakness. A nurse, no matter how well trained, is not equipped for these onerous responsibilities.

It is not merely the present but the future of anesthesia that the growing encroachments of the nurse anesthetist threaten. The field of anesthesia is necessarily a limited one. If nurses usurp the employment opportunities of physicians in routine cases, how are skilled specialists to be developed for difficult ones?

Scientific progress in anesthesia has hitherto resulted, and can continue to result, only from the experience and research of medical men working in this field. If the development of creative specialists is prevented by the curtailment

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Neither Suggested nor Implied!

20 East 76th St
New York City

To the Editor—

In the May 15, 1937 issue of this Journal in the section devoted to correspondence, certain exceptions were taken to our recent review on protein requirements. The criticism was based upon a misinterpretation. It was not our purpose, (nor did we even intimate such an idea) to advocate a universal diet of 60 grams or less of protein daily for all people under all conditions of health or disease. We did not even remotely suggest by word or implication that high protein diets are not indicated in nephritis associated with hypoproteinemia. It was emphasized however that the ingestion of 60 grams of protein daily was sufficient under normal conditions to maintain nitrogen equilibrium. It was further inferred that the choice of a high carbohydrate diet by those on limited budgets was a happy one because of the definite and well known protein sparing action of this type of food-stuff.

During the past three years we have had occasion to see about 1500 patients of this class in the nutrition clinic. About half of these have been on "relief" for this period

of time or longer. Our problem was to instruct them to spend their money most efficiently. These people could not purchase a uniformly high protein diet because of limited funds. We accepted the standard of approximately 60 grams daily from the classical, time tested work in the field. Never once in this series have we observed the occurrence of nutritional oedema or other evidence of hypoproteinemia or the development of any other form of nutritional deficiency. The attendance in clinic did not vary even during the severe seasons when upper respiratory infections were prevalent. It was our impression that these people were not any more susceptible to infection than the general run of patients. Random hemoglobin in determinations and red blood cell counts have not shown the development of anemias. The only instance of nutritional deficiencies we observed were in post-operative feeding cases and among a few food "faddists."

Dr Bridges has read implications into our article which are quite unjustified by content.

HERBERT POLLACK, M.D.

HENRY DOLGER, M.D.

May 29, 1937

CHANCE FOR MORE NEGRO DOCTORS

A glittering opportunity for colored physicians is seen in the fact that for each 4000 Negroes, there is only one Negro doctor—which gives young men of the race a wide field for leadership and service. That advice was given at the fifth annual

Capital District Vocational Guidance Conference in Booker T. Washington Center in Albany in April by Dr. W. Adrian Freeman, secretary of the Manhattan Medical Society and staff member of Harlem Hospital.

GREAT HEALTH CONGRESS AT THE FAIR

Plans are being made for an International Health Congress during the New York World's Fair in 1939. This has been announced by Dr. Donald B. Armitstrong, President of the National Health Council. Advantage will be taken of the fact that hundreds of noted medical specialists and public health authorities, representing many countries, will be visiting New York City. American

and foreign specialists will be asked to deliver addresses on subjects of interest not only to professional groups, but to the general public.

The more you practice what you know,
the more shall you know what to practice
—Jenkins

it is capable of practicing scientific medicine? Perhaps they will tell you that under state medicine quacks, nostrums, and medical folly would be decreased. Instead, experience shows that these charlatans multiply under state system of control because the people, dissatisfied with what their government gives them, seek out the quacks in search of that personal consideration which all government systems lack." Another barrage against the same old foes, this time from the *Los Angeles Medical Bulletin* of recent date

WRITING OF THE TRAGIC STORY of the great dancer Nijinsky, "who was diagnosed as a schizophrenic by the psychiatrists Bleuler, Wagner von Jauregg, Kraepelin, Ferenczi, Freud, and Jung, (and) is now dreaming his dreams in the Bellevue Sanitarium in Kreuzlingen" the editors of *Medical Record* wonder if, perhaps "In a society differently ordered, could this splitting of a mind have been forestalled? Could the principles of mental hygiene have preserved this instrument of beauty which now is so utterly wrecked? Or is it inevitable that beauty which begins in suffering must end the same way?"

"* * * WHATEVER THE COST, the medical profession must proceed with its education of the public. Until such time as the public understands and accepts the basic truths of medical science, so long will quackery flourish. Undoubtedly there always will be those who believe in the impossible. For their safeguards should be set up by law." From the May Supplement to the *Bulletin* of the Medical Society of the County of Monroe.

"IT IS OUR BELIEF that these two volumes of American Foundation Studies on 'Ameri-

can Medicine' are, thus far, the most valuable contributions on the subjects discussed, and that they will be studied and referred to when other reports of much greater length, but containing the outpourings of theorizing laymen will have been almost forgotten, except for some of their statistical information

"Fact-finding studies and surveys have been much the vogue in recent years, so much so, that most folks are apt to view with suspicion many such efforts. Here in California, the sad experience of spending some \$35,000 of the California Medical Association's funds, under instructions from the House of Delegates, is still too vividly near not to make us share with others the mistrust concerning the value of some of these so-called surveys. For our part, we believe that, had the two volumes on 'American Medicine' been off the press at the time the California Medical Association embarked on its survey adventure, some three years ago, and had the House of Delegates ordered the purchase, and given to each member, for his own library, the two volumes on 'American Medicine,' then our Association would have had, for less than half the money it expended, twice or thrice of what we shall ultimately receive in either value of satisfaction from the California Medical-Economic Survey * * *" Additional words of praise for a splendid piece of work, voiced by the editors of *California and Western Medicine*, May, 1937

"SOCIETY HAS GOT TO PASS toward some better equilibrium, and the distribution of wealth has doubtless slowly got to change. But if any of you expect that such changes will make any *genuine vital difference* on a large scale, you will have missed the solid meaning of life, which is always the same eternal thing—the marriage, namely of some ideal with some courage and endurance." William James "On Some of Life's Ideals"

BOOST, DON'T KNOCK

You know how anxious some people are to open up a discussion which involves criticism of your confreres and how easy it is, by word or by acquiescence, to chime in with it. When we do this we do ourselves and our profession no good and afterward we have that uncomfortable feeling that we have surrendered to expediency and thereby failed to live up to the best traditions of our calling. I think the sum

total of our happiness in life will be greater if we make use of such occasions to come to a diplomatic defense of the profession as a whole, for we know only too well that the fortunes or misfortunes of medical practice are often regulated by factors over which we have very little control. The streptococcus is deadly, whether in our competitor's practice or in our own—B J Gallagher, M D, *Minnesota Medicine*

to chicanery or resorted to competitive standards of cheapness to attract patients to themselves, that when suspicion and envy, and disloyalty and hate, thrived among its confederates, the dignity and honor of the noblest profession was lowered, and with these went the surrender of its survival values. Yes, those old-timers knew, and wisely, that when we no longer adhered to the ideals and medical ethics, conceived in our forefathers' minds, given birth to live in the lives of their successors, society will hold us in disrepute, and in its wake we will blindly follow to self-destruction.

Don't ridicule or scoff because of the thoughts I dare express. The allegiance of medicine and society will ever remain perhaps known by a different name but always "preventive and curative" in purpose—shifting, drifting, continually advancing until life's end.

The profession's greatest fear is its traitors within, a greater menace than our enemies without. You can't evade or elude truth.

May I state that economics in its relation to medical ethics challenges your right to survival as individual physicians, practicing your art unfettered? Society, as a whole, is indifferent to your vibrant protests, not entirely without justification, and scheming politicians and legislators, abetted by social reformers, rejoice at your discomfort, hoping by ruse and misleading propaganda to so mold public thought that eventually the State will take over the control of medicine and direct your activities as physicians. While you growl and howl, they insidiously work. State medicine must not come with its standardized impersonal production methods to sever the personal and confidential relationship between physician and patient in order to achieve the optimum results in treatment. Socialized medicine must not come to retard the progress of scientific advancement in our America. However, I question whether society really appreciates the many sacrifices made in its behalf, or makes a tangible impression. Society likely regards it as just "tough luck" if you selected a vocation unsuited to your make-up, or one that doesn't bear the fruits you expected it to yield. Don't squawk or complain to society—it leaves a squeamish feeling, much to the delight of medical reformers. We can prevent State medicine becoming a reality

if there is unity, loyalty, and faith in well-organized medical societies, and by having able representatives go before the American people, speaking in clear understandable language, recounting the History of Medicine, citing proof of our capabilities to preserve unto them the protection and the best medical care available today, and they should also acquaint society with the high standard of medical ethics we aim to maintain.

The world knows that man is naturally lazy. Unfortunately society thinks the physician is no exception, especially when asked to make a call during the night. Society, as a whole, is as intelligent as you. It observes your attitude, senses your feelings of superiority, often wonders if your interest in them is rather one of remuneration than humanitarian service. Don't contemptuously blame the public and the spirit of the times because of the many and diverse economic phases effecting your welfare, but chide yourselves because you fail to read aright the trend of public thought.

Must the brief for our preservation as individual physicians be one of self-indictment by our own acts, to be subjected to trial and inevitable conviction by jurors not our peers? If so, what a plight for medicine and a pitiful plight for physicians. Awaken! Our quest in life should be not only for honors and sustenance, but also the search to eradicate the causes jeopardizing the future of medicine and your welfare, and the determination to safeguard the future to those who will surely follow you. Don't remain passive to these realities, while politics, economics, and art are indulging in an orgy.

Man is not born whom God did not endow with gifts or talents to develop and use wisely. Concerning the profession as a whole it is regrettable that some recognize the power of speech only when danger threatens them by agencies from without, and then likely, some secretly hoped for some invention to do their thinking. Today, we find men who through sheer fear of losing their freedom to pursue their vocation unshackled become panic-stricken. Yet only yesterday they basked in only the reflection of their diploma and license—serene, unafraid of molestation by outside agencies, believing they were safely protected by the combined forces, and concerted action of the able representatives of our nation-wide

Economics

Evaluation of the Ideals and Ethics of the Present Day Physician

GEORGE W UNSWORTH, M D , *Suffern*
President, Rockland County Medical Society

The Oath is the foundation of the physician's religion. The ideals and the Rules of Ethics of our profession are concentrated in the concise code known as the Hippocratic Oath. The various medical creeds that have come down through the years simply reflect different interpretations of the Oath. Today we find they have been scrambled together and given the name of Medical Ethics.

Ideals mean the highest standard of excellence—always approachable if not attainable, ethics treats of the principles of right conduct in our relations with society and is applicable as our guide governing our mutual relations as physicians.

The prime objective of medicine is the service it can render to humanity. The ethical ideal is the concrete expression of our responsibilities, sacred in the sense we are permitted to exercise our limited power over life and death. Our oath of allegiance to these principles is the dedication of our lives—our knowledge, our talents, and our physical being—to service for suffering humanity. Nothing else. Though the noblest vocation in life, yet the real drama of medicine, full of surprises, sacrifices, triumphs, and failures, the tragedies and comedies, has not been portrayed or told.

The Principles of Medical Ethics, adopted after modification by the American Medical Association were taken from the Percival Code, compiled by Dr Percival over one hundred years ago, who used the basic principle of the Hippocratic Oath. It is significant that the survival and development of these first principles is the final test and measure of the value which society, as a whole, throughout these many years, has put on these ethical principles.

Despite the evolution of our present Principles of Medical Ethics, with its re-

visions, additions, and changes of wording, essential to enable the physician to cope with the many and diverse economic problems ever confronting the profession, the basic principle still remains, that is, the physician's responsibility in service to humanity, and reward or financial gain a subordinate consideration. Read them thoughtfully and you will be amply rewarded in practicing its precepts.

Some of us forget that the "norm" or "ultimate good" on which medical ethics is based is primarily the resolve to maintain such standards and safeguards necessary for the best medical care and the protection of all members of the community. If this fundamental tenet is understood by both physicians and society, then traditional medicine, regarded as a science and practiced as an art, will survive the surging onslaughts of criticism by those who seek to destroy its individualism.

Our forebears in medicine had foresight when they adopted a code of medical ethics and the wisdom to revise them suitable to their time. They visualized the future of medicine, one far advanced beyond the best medical thought of their day. They thought of a more learned and cultured society ministered to by more enlightened and better trained physicians, yet they failed to foresee the importance of how economics would affect the future practice of medicine. Yet overshadowing their knowledge and experiences as physicians was that deep interest in future medicine and the practitioner. They knew that when "conquest of disease" was placed subordinate to reward or fee (and there were greedy and unscrupulous physicians then as there are now—worshippers of gold, and lacking in compassion for the misery and illness of man), that when physicians condescended

Read before the Rockland County Medical Society, Spring Valley, February 24, 1937

Medical News

Albany County

THE PROBLEM of anginal heart failure was the topic of the Medical Society of the County of Albany at its meeting on May 19. The chief speaker was Dr H M Marvin, associate clinical professor of medicine at Yale. Discussion was led by Dr James F Rooney.

Bronx County

THE PROGRAM of the Bronx County Medical Society on May 19 included addresses on Legislative Activities of the State Medical Society by H L Nelms, M D, Chairman, Committee on Legislation, New York State Medical Society and Joseph Lawrence, M D, Executive Officer New York State Medical Society, and on "Dental Care of Children—Its Effect on Later Health" by Louis Wack, DDS. Discussion opened by S B Gerstner, DDS.

Cortland County

DR. STUART B BLAKELY of Binghamton, spoke on May 21 at the meeting of the Cortland County Medical Society in the Cortland Free Library building, on "Some of the Common Gynecological Conditions—Their Diagnosis and Treatment." His address was illustrated.

Chemung County

A SERIES of post-graduate medical lectures on syphilis was given on Thursdays during April and the first Thursday in May at noon at Hotel Wagner, Bath and at 8 30 in the evening in Elmira. The lectures were arranged for the Chemung and Steuben County Medical Societies under the sponsorship of the Committee on Public Health and Medical Education of the New York State Medical Society.

Chenango County

DR. W LEE DODGE of Afton died at his home on April 3, aged 64. He was a well known physician and last year served as president of the Chenango County Medical Society of which he had been a member for many years.

Dutchess County

THE DUTCHESS COUNTY MEDICAL SOCIETY met on April 14 in Poughkeepsie. The speaker was Dr Herbert Mohan, chief neurological clinic, St. Vincent's hospital, New York city. His topic "Neurology from the general practitioner's viewpoint"

DRS MATHER CLEVELAND AND DAVID BOSWORTH of New York city read papers on "A Critical Analysis of 50 Consecutive Cases of Fracture of the Neck of the Femur, Emphasizing Certain Causes of Non-union" at a meeting of the Dutchess County Medical society on May 12 at the Amrita club, Poughkeepsie.

Erie County

THE WOMEN PHYSICIANS' league of Western New York honored the four women who graduate this June from the University of Buffalo Medical College at a dinner in the Town club in Buffalo on May 21.

This group of four includes Mrs Edwin J Lenahan, Mrs R Leshe Murray and the Misses Ellen Nicholson and Alice Challen.

An unusual feature of this graduating class is the presence of two married women, both of them with children, who have succeeded in carrying on their arduous studies while keeping on with their home making. Mrs Lenahan, who is a D'Youville college graduate, has four children and Mrs Murray, with two children, is a Buffalo Seminary and Vassar college graduate. Mrs Murray is following in the footsteps of a notable family, her father having been the late Dr Arthur G Bennett, noted eye specialist, her brother, Dr Arthur L Bennett and her mother, Mrs Alice Ross Bennett, both having doctorates.

Dr Louise Beamis-Hood was chairman of the dinner, with Dr March and Dr Margaret Warwick Schley assisting.

PHYSICIANS OF ERIE COUNTY, who bore a major burden of depression relief costs through free services to the indigent, ask that when the ERB is transferred to the County Department of Social Welfare in July, a reasonable plan of medical care and payment be adopted.

Their demand is embodied in a resolution unanimously adopted at a meeting of the

medical societies Little did they know that not science, not art, but emotions rule the world

Colleagues, the responsibility for the future of medicine rests entirely upon you! The true physician is honest and sincere, with a sense of true values in people, and a friendly courteous attitude towards every one. This is the heritage handed down to him by those pioneers who invaded virgin fields in the cause of medicine

Sometimes I wonder whether the majority of physicians really give thought to medical ethics Do they know that life can offer no greater gift than friendship, and that real friendship is founded on courtesy, kindness, and understanding One of the aims of our Society should be to foster friendship, to bring us into closer harmony and understanding Courtesy is worth cultivating It means a kindly considerate attitude toward every one It is an expression of good fellowship—a symbol of fine breeding It springs naturally from the kindly heart. Culture, too, unmistakably has its place in ethical relations There is nothing wrong with medicine, but with us Our harvest depends upon the quality of the soil and the kind of seed we sow Society justly complains that many physicians concern themselves more with what they think of them than giving expression of their own true selves Another accusation is that

some physicians are not immune from wearing the mask of pretense—the pretense of impressing others—their patients and their friends, and sometimes their colleagues—as to their abilities, often to deceive, and which sooner or later no amount of cleverness can conceal

We should not be satisfied to be right, unless we can prove others to be wrong Our medical knowledge may give weight, but accomplishments give luster, and many more patients see than weigh

Faith is the great lever of life. Without it man can do nothing, with it all things are possible Do we, as physicians, have that abiding faith in the integrity of each other?

Our ethics, the guiding symbols of the physician's life, is like some rich mosaic made up of many beautiful pieces Its glow is the reflection of friendship Its pattern is woven in our associations of unity, peace, and good-will

Always remember it is the things we do rather than the things done to us, it is your thoughts, your kindness, your interest in one another, your loyalty, your sincerity and your unbounded faith, your smile, and the grip of comradeship All of these united give strength to the bonds of fellowship—inseparable, always an imperishable monument to us, the living, and the dead

OLDEST MEDICAL SOCIETIES

New England is aroused when any other section claims to be more ancient or, shall we say, more antique A newspaper remark that the Westchester County Medical Society was the oldest county society in the United States, at its recent celebration of its 140th anniversary, prompts Dr Creighton Barker, Administrative Secretary of the Connecticut State Medical Society, to write to the New York *Herald Tribune* that this is "quite inaccurate." Not counting the Massachusetts Medical Society, founded in 1781, as it was not a county unit, he reminds us that the New Haven County Association was founded in 1784 Furthermore

There are eight county medical associations in the State of Connecticut, and each of them was founded before 1797, the date of the establishment of the Westchester

County association, and in 1792 they consolidated in the formation of the Connecticut State Medical Society, which was chartered by the General Assembly of the state in that year On July 23, 1766, fourteen gentlemen of New Jersey met in the town of New Brunswick and formed the Medical Society of New Jersey, this society antedates all others, but its activities were suspended from 1795 to 1807

HOW HE CAME DOWN

"Hullo, haven't seen you for some time."
 "Been in bed seven weeks"
 "Oh, that's too bad! 'Flu, I suppose?"
 "Yes—and crashed!"

—*Colorado Medicines*

gram included a discussion of pre-natal and post-natal care by Dr Raymond J Pieri of Syracuse. A conference on tumor was held at the House of the Good Samaritan at 5 30

DR S E SIMPSON, county sanatorium superintendent, was named director of the Jefferson county tuberculosis and public health association to fill the unexpired term of Mrs George Diefendorf, removed to Syracuse, at the regular meeting of the directors held at the Black River Valley Club on May 18

Kings County

THE PROGRAM of the Medical Society of the County of Kings on May 18 was on the subject "Lymphopathia Venerea" (a) General Considerations and Proctological Aspects—Collier F Martin, M D, F A C S, Philadelphia, Pa (b) Surgical Difficulties—Walter Estell Lee, M D, F A C S, Philadelphia, Pa, and Robert R Impink, M D, Philadelphia, Pa

CONTINUING TO COMBAT the fraudulent health talks and medical advertisements broadcast by radio to a gullible public, the Medical Society of the County of Kings offers four programs over Station WBBC during the month of June.

The society's publication for May directs an attack at "fake advertising" and speaking of its own programs, reports that "ours is to be a program of health promotion and disease prevention

"We realized that we had a tremendous problem on our hands, we also realized that we would not be able to convince or convert all of our listeners. We did know, however, being fairly good judges of human nature, that we would reach a good many people who were sincerely interested in a supervised medical broadcasting program which would be given by organized medicine," the article says

On June 7, "Care of the Hair and Skin" was discussed, on June 14, "Falling Hair," on June 21, "Pimples" and on June 28, "Moles and Blemishes"

DR TSUNE-CHI YU, Chinese Consul General in New York, was the chief speaker at the second annual luncheon of the Women's Auxiliary of the Kings County Medical Society in the Hotel Astor, Manhattan, on May 11

Speaking on "The Women of China," Dr Yu told the 650 guests that Chinese women had aided greatly in the advancement of peace and democracy in their native country

Among the prominent Brooklynites who

addressed the gathering were Mrs John L Bauer, president of the Women's Auxiliary of the New York State Medical Society, Dr Charles H. Goodrich, president-elect of the New York State Medical Society, and Dr Thomas A McGoldrick, president of the Kings County Medical Society. Another speaker was Mrs Augustus Keth of Altoona, Pa, president-elect of the Women's Auxiliary of the American Medical Association. She said in part "Doctors' wives are the unwept, unhonored and unsung heroines of the modern world—and they're bears for punishment

"There are 154,000 doctors in this country, and 72 per cent of them are married. Among that 72 per cent there are just 906 divorced—less than eight-tenths of 1 per cent. These figures show how well the doctor's wife is doing her job

"It's the hardest job of any wife today, for the doctor is the only man not master in his own house. He is at the beck and call of the world, and his wife must stand between him and the world if a tired man is to have any rest

"Being a doctor's wife is one of the hardest feats for a woman—but one of the finest and most rewarding for any woman who wants to leave the world better than she found it"

THE RIDGEBORO MEDICAL SOCIETY held its monthly meeting on May 20, at the Kings County Lighting Company, 67th St. and 4th Ave. Drs Condre, Kaiser and Windorf discussed three unusual cases of interest to the medical profession. Dr Kingsley Roberts of Manhattan discussed "Consumer Co-operative Control in respect to voluntary health associations"

THE REGULAR MEETING of the Bay Ridge Medical Society was held on May 11 at the Shore Road Academy. The scientific session was devoted to a paper by Dr James J. Stefano, of the Brooklyn Hospital on "Analysis and Treatment of Gastro-intestinal Hemorrhage with the Levine Tube." The annual dinner of the Society was held on June 8, at Lundy's Restaurant at Sheepshead Bay

THE ADVANCES which medical science has made in the handling of heretofore incurable cases were stressed in the clinical meeting of the Williamsburg Medical Society on May 10, in the Jewish Sanitarium and Hospital for Chronic Diseases, E 49th St, and Rutland Road. Among the doctors presenting papers were Meyer Ginsberg, Henry Joachim, Benjamin Koven, Bernard S Epstein, Milton G Wasch, Alexander Lew-

Erie County Medical Society in Hotel Statler, on May 17

Under the system that has prevailed, it was pointed out by the doctors, some of them gave much time to treating the poor without pay, while a few garnered more than a just share of payment from Federal, state, and county relief funds

The physicians estimate that since 1932 they have donated \$1,000,000 worth of medical service to the county's indigent, exclusive of City Hospital

Henceforth, they urge in the resolution adopted, indigent patients should be given full free choice of whom they shall call in when sick. Co-operation with the City Department of Social Welfare is provided for by the resolution, as well as an agreement among individual physicians to abide by regulations of the society's executive committee.

The resolution, introduced by Dr Joseph C O'Gorman, directs that an official representative of the society confer with Mayor Zimmermann to work out the new program

Another provision is that indigents shall be provided with a list of doctors in the ward in which they live, so they can choose.

Dealing with another matter, the society voted against asking the state for some \$7500 to finance continuation of a maternity mortality survey

Dr James L Gallagher argued that acceptance of the money would be "obligating this society to the State Department of Health and furnishing the entering wedge for state medicine to gain control"

AN "OBSTETRICS COUNCIL" will be organized by the Medical Society of the County of Erie to carry on educational and other activities designed to bring down Buffalo's maternal mortality rate.

Formation of the council was decided upon at the society's April meeting in Hotel Statler after Dr Marvin Israel, chairman of a special committee appointed on April 16, 1934, to make a local survey of maternal mortality, had recommended the move.

Under the plan each hospital in the city will be requested to appoint one of its obstetricians, who must be a member of the society, to serve on the proposed council

The group will then organize and elect its officers. The council's functions will be to carry forward the work begun by the Maternal Mortality Survey Committee, to promote public education along lines calculated to reduce maternal mortality, to act as a source of authoritative information on obstetrics, and to work to improve hospitalization and introduce and maintain

standard approved obstetrical techniques in all the institutions of the city

ABSENCE OF A PHYSICIAN on the citizens' advisory committee recently named by Mayor Zimmermann to survey the local relief situation was deplored by Dr Herbert R. Bauckus, past president of the Medical Society of the County of Erie, at a health officers' meeting in Buffalo on April 28

He declared the medical profession, sympathetic to and fully cognizant of the health and medical needs of the suffering and unfortunate through constant professional contact, should be represented on any such committee

Dr Bauckus was one of a long list of speakers at the State Health department's health education institute for Western New York health officers, conducted in the State building and attended by doctors from seven counties

Health officers, who should be the leaders in health education work, have neglected this phase of their duty, according to Dr Archibald S Dean, district state health director, who presided at the meeting

Burt R. Richards of Albany, State Health department director of public health education declared "If we had done more to bring health facts before the public the quacks would not have had such an easy time"

Fulton County

MEMBERS of the Fulton County Medical Society were guests of Dr B E Chapman at his Summer home on the Sacandaga reservoir on May 19 at the annual Spring outing of the society

DR J EDWARD GRANT was re-elected president of the Fulton County Tuberculosis and Public Health Society at the annual meeting. He has held the office a large part of the time the society has been in existence during the past eighteen years

Herkimer County

A SERIES of POSTGRADUATE LECTURES on the complications of pregnancy were given at the North School in Herkimer in May. The committee in charge of the program were Dr James F Gallo, Dr G A Burgin and Dr G J Frank

Jefferson County

THE REGULAR MEETING of the Jefferson County Medical society was held on May 6 in the Black River Valley club. The pro-

Nassau County

THE THIRD ANNUAL JOINT DINNER meeting and sports day of the Nassau and Westchester County Medical Societies was held Wednesday, June 2nd, at the North Country Club in Port Washington, Long Island. The program for the afternoon included team contests and individual play in golf, tennis, playground baseball with a ten-man team and horseshoe pitching. After dinner the Nassau and Westchester men vied with each other in a program of amusing entertainment, furnished by members of both groups, on the lines of an amateur hour program, singing, story-telling, yodeling, dancing, sleight of hand, and other types of entertainment.

New York County

DR. NATHANIEL ROSS, assistant clinical professor of psychiatry at the New York University College of Medicine, has been named physician in charge of the Committee for the Study of Suicide, an organization formed for the study of self-inflicted deaths which occur in the Manhattan area.

A comprehensive one-year survey of Manhattan's suicides is planned by the group, according to Dr John Wyckoff, dean of the College of Medicine, who selected Dr Ross as the head of the new organization.

Prof Karl M Bowman, director of the psychiatric division of Bellevue Hospital, Dr Gregory Zilboorg, director of research of the committee, and Dean Wyckoff, with about 50 psychiatrists and social workers, will participate in the project.

Oswego County

WITH ELECTION OF Willard J Hall as president of Oswego hospital, at a meeting of the Board of Trustees on April 19, steps were taken which, it is hoped by hospital trustees, will result in a speedy settlement of difficulties between the Department of Welfare, the Oswego Academy of Medicine, and the hospital authorities.

For more than a year, there have been differences between the city of Oswego and the hospital, although the latter was not in position to act conclusively, because of resignation of its medical and surgical staff.

Members of the medical and surgical staff of the hospital last year presented a demand to the city they be paid for treating and caring for city welfare cases in the hospital the total cost to be about \$16,000 a year. The staff proposed this sum would be divided equally among all staff members,

or, in effect, that each staff member, regardless of the work performed, would receive a fixed annual sum for services to the city. City Attorney Harry C Mizen ruled this was incompatible with decisions by the state comptroller, and that the city could not pay a lump sum for services, but could pay on accounts regularly rendered.

Resignation of the staff followed, and left the hospital virtually helpless to proceed. The city then started a plan of retaining, at regular fees, such physicians and surgeons as were needed for relief cases, and this has cut hospital revenues, and city costs.

A committee of physicians, representing the Academy, has been negotiating with city authorities recently, and it is expected an amicable arrangement will be reached which will be fair to all parties. It may be based on an increased sum per diem to be paid to the hospital per patient, with the hospital to reimburse the physicians for their work, which is the only basis, the city attorney rules, on which the city can make payments. The hospital receives \$4 per patient day now, and under the new plan this will be advanced to \$6.50 or about that sum.

Rensselaer County

DR. STANTON P HULL of Troy has purchased the three-story and basement building at 507 Broadway, adjoining his present property for the establishment of an institution of physiotherapy and fever therapy. Dr Hull will be assisted by Dr Vincent Laquidera.

Richmond County

AN APPEAL TO PHYSICIANS to help control scarlet fever on Staten Island has been issued by Dr William C Buntin, president of the Richmond County Medical Society. He also is Richmond Borough superintendent of the Health Department.

In his announcement Dr Buntin said, "Since January 1, there have been over 300 cases and, fortunately, only one death. Of these, too high a percentage have been secondary cases, some of which might have been avoided if the case of origin had been more promptly reported so adequate quarantine could have been established."

Suffolk County

A CARD PARTY was held by the Woman's Auxiliary to the Suffolk County Medical Society at Bay Shore on May 4, the proceeds to go toward the new equipment for the Boy Scouts' Infirmary at Camp Baiting Hollow.

tan, Abraham Walzer, William J. Zack, A. M. Rabiner, and Morton Hand

MEMBERS of the South Brooklyn Medical Society, at its meeting on May 13, listened to papers on "Psycho-analysis in General Practice Hypnosis explained and demonstrated" by Sándor Lorand, M.D., Psychiat, Mt. Sinai Hospital. Discussion Carroll Leja Nichols, M.D., Cons. Neur. Bushwick Hospital, and "Insulin improved by non-protein amines. A chemical discussion" by Raymond A. Warburton, M.D.

Madison County

THE ANNUAL COURSE OF LECTURES of the Madison County Medical Society are being presented at the Hotel Oneida. The program: May 12, The Treatment of Edema, Dr. Nelson G. Russell, Buffalo; May 19, Dyspnea and Its Treatment, Dr. E. H. Heath, Buffalo; June 2, Measures for the Relief of Distress Following Meals, Dr. A. H. Aaron, Buffalo; June 9, Results of Modern Methods in Treatment of Anemia, Dr. F. D. Leopold, Buffalo; June 16, How Shall We Treat Irregular Hearts? Dr. C. W. Greene, Buffalo; June 23, Diagnosis and Treatment of Unconscious States, Dr. E. A. Sharp, Buffalo.

MEMBERS of the auxiliary of the Madison County Medical Society heard a talk on "Cancer" at its regular dinner meeting on May 13, at Hotel Oneida. Dr. Lee S. Preston was the speaker. Mrs. Robert L. Crockett presided.

Plans for the June meeting were discussed and the next session of the auxiliary will be held the third Thursday in June instead of on the second as usual. It is possible the auxiliary will hold a joint outing with the County Medical Society.

Monroe County

THE ANNUAL MEETING of the Rochester Academy of Medicine took place on May 6, at the clubhouse, Prince Street. Following the business meeting, members were addressed by Prof. Henry F. Helmholtz of the University of Minnesota, president of the American Pediatric Society and former editor of the American Journal of Diseases of Children. He is a director of a section of Mayo Clinic. During his stay in Rochester, he was the guest of Dr. George H. Whipple of the University of Rochester Medical School. A dinner was given in his honor at the University Club by Dr. A. D. Kaiser, vice-president of the academy.

Montgomery County

DR. FRANCIS R. IRVING, of Syracuse, addressed the Medical Society of the County of Montgomery at the Elks Club in Amsterdam on May 13, on "The Hemorrhagic States of Pregnancy."

FOR LONG LIFE EAT LITTLE! That is the counsel of Dr. Henry C. Young, health officer of Hagaman, Montgomery County, who received a memorial scroll from Dr. Edward S. Godfrey Jr., State Commissioner of Health, in commemoration of 50 years of service, on May 3.

"More people die of overeating than starvation," the veteran physician declared, urging a "simple, wholesome diet, such as my own."

Dr. Young's breakfast, at 10 a. m., comprises the juice of a single orange and a half-cup of coffee. At noon he has a small cup of broth or soup, buttered crackers and another half cup of coffee. Dinner, at 6 p. m., includes a small portion of meat, two vegetables and weak tea.

"The best meal of the day for me is between midnight and 1 a. m.," he continued. "Then I have a cup of stale bread or crackers, in milk. Now there are many good arguments in favor of midnight lunches—light lunches, of course."

"In the final analysis we are all grown-up babies. Did you ever hear of a baby going to sleep on an empty stomach? No, of course you didn't. Babies are always fed before they go to sleep. By the same token, a little food taken before one goes to bed is conducive to a good night's rest."

Discussing the habit of smoking, Dr. Young said, "personally, I smoke only once a day—from the time I get up until the time I go to bed." He smokes both pipe and cigars, but admitted a preference for a 40-year-old meerschaum, battered somewhat from being emptied by tapping the rim on various surfaces.

"The curse of smoking is inhaling," he said. "If anyone wants to kill himself, slowly but surely, let him inhale while he smokes." As for women smoking, "it kind of hurts me to see them do it," he commented. "It might be a little bit of a moral thing with me, but I feel that women would be better off if they didn't smoke."

In presenting the memorial scroll to the veteran health officer, Dr. Godfrey addressed him as "young Dr. Young," and explained the parchment was "a slight token of our esteem for 50 years of faithful and continuous service." Last year Dr. Young was reappointed village health officer for another four-year term.

ing their files and buildings to the inspection of investigators. But the proprietary hospitals, institutions operated on a profit-earning basis, were less willing to cooperate. Of those approached, two refused to make appointments for the interview and in three no information of importance was obtained.

Too often the obstetrical nursing in the proprietary hospitals is done by undergraduate "practical" nurses. Each physician in

these hospitals makes his own policies and many of the hospitals are poorly equipped for maternity care. In one institution, the delivery room, which in well-run hospitals should be in a separate wing from the other departments of the institution to prevent infection, was part of the general operating room suite with only a utility room separating them. As yet, satisfactory control of these proprietary hospitals has not been established, according to the Association.

A Hospital Training School for Executives

THE HOSPITAL FOR JOINT DISEASES, in New York City, is making an interesting experiment in training graduates in medicine to become hospital executives. It was only after five years of careful consideration that the hospital authorities decided to create the position of "Resident in Hospital Administration," and the results have been so good that the program of training that was tried out has been definitely adopted.

Not everyone realizes the complexity and diversification of the task of directing a hospital. It touches in one way and another pretty much of the whole field of man's social and economic life. As Dr. J. J. Golub, Director of the Hospital for Joint Diseases, says in the *Journal of the AMA*, the hospital must interest itself not only in the patient's disease and its treatment, but in his social and economic influences, his home environment and background, his fate after discharge, and the situation of his family during and after his illness. In fact, he declares:

"Under the influence of this expanding concept of hospital aims, the work of hospital administration goes more and more beyond its walls. It now involves the articulation of the hospital with the community, government, central chests, federations, foundations and welfare agencies, and with the medical, dental and nursing professions. It is concerned with and affected by the problems facing the medical and nursing professions. Such questions as costs of medical care, economic burdens of the physician, hospital and out-patient department abuses, open or closed hospital policy, health insurance, periodic health examinations, socialization of medicine, legislation affecting medicine, specialization and the family physician, ethics, cults and the standards of medical education, all of which seriously engage the interest of the medical profession, are of vital interest to the hospital. Such questions

as nursing education, supply, demand and distribution of nurses, grading of nurses' schools, group nursing, nurses' and students' hours of work, nursing standards and duties, and nurses' earnings, which are of primary interest to the nursing profession, also deeply concern the hospital.

"A hospital executive must know all these fields."

So the requirements for candidates were set high. They include:

- 1 Graduation from a grade A medical school.
- 2 Two years general internship in a hospital with a bed capacity of at least 200.
- 3 Reliable testimony and observation as to personal qualities, such as aptitude for administration, character, capacity to learn, resourcefulness, vision, social mindedness, ability to work hard and well with others, and poise.
- 4 A desire to make hospital administration a life work rather than a means of finding temporary employment.

The course of study is laid out under a Three-Year Plan, as follows:

First Year

Junior Resident in Hospital Administration
Study and Supervision of Dept. Group A

- 1 Admitting department
- 2 House staff
- 3 Emergency and ambulance service
- 4 Deaths and autopsies
- 5 Record department and library
- 6 Surgical operating rooms, maternity delivery rooms and anesthesia service
- 7 Nursing service
- 8 Social service department

Second Year

Intermediate Resident in Hosp. Administration
Study and Supervision of Dept. Group B

- 9 Laboratories
- 10 X-ray service
- 11 Pharmacy
12. Other professional services

Hospital News

Serious Flaws Revealed in Maternity Care

LACK OF RESIDENT DOCTORS and nurses trained for the special care of mothers in childbirth is an outstanding weakness of governmental, voluntary and proprietary hospitals in the Metropolitan area, according to the Maternity Center Association in its study of obstetric facilities made for the Hospital Survey for New York, under the sponsorship of the United Hospital Fund.

In only half of the municipal hospitals visited in New York City has the resident physician had specialist training for the care of mothers in childbirth, the findings show. In the voluntary hospitals visited, three-fourths have no resident physician with previous special training in obstetrics. Of the hospitals with schools of nursing, two-thirds of the nurses in charge of student teaching of obstetrics have no special training in the subject.

In contrast to this lack of trained staff, the number of hospital beds for maternity patients in New York City is found to be sufficient. By 1940, it is estimated that there will be enough beds to care for 104,220 births or 7 per cent more than the total number of estimated births in that year, assuming that the birth rate will be 12 per thousand in a population of 8,109,000.

The Association found that 81 per cent of the total births in New York City, 70 per cent of the births in the five New Jersey counties included in the Metropolitan area, 78.8 per cent in Westchester County and 57.9 per cent in Nassau County occur in hospitals.

In virtually all hospitals offering maternity services, the nurseries have special consideration. Even in those institutions where patients' beds are crowded and wards disorderly, the nursery is roomy and apparently well-cared-for.

"Thirty of the thirty-four hospitals visited conduct prenatal out-patient services. In the majority of them, the space and equipment are not adequate for the number of patients registered. A few of the hospitals provide individual rooms or cubicles for the examination of patients. The majority of these dispensaries have curtains between

the tables, but in some the curtains are never drawn."

In only a few of the prenatal clinics is suitable provision made for the patient to undress for examination in privacy. Because of lack of facilities, patients are forced to wait long hours to be examined, the examination is hurried and the patients frequently feel poorly repaid for the effort they made to get to the clinic.

"While individual prenatal records are fairly complete," the Association found, "few hospitals could readily supply information about the volume of service or the month of pregnancy in which patients are registering and few prenatal clinics could tell how many of their registered patients were delivered in hospitals. On the whole, opportunities for the patients to secure the kind of care they need are few."

In addition to the clinics conducted by the municipal and voluntary hospitals, there are a number of unattached clinics conducted by the Department of Health and several unofficial agencies in New York. At the present time many of the patients attending these unattached prenatal dispensaries have no definite plan for delivery care, and often patients are sent at the last moment to a hospital which has no record of their prenatal condition or care. There is no plan which makes the records of patients who attend these dispensaries available to the physicians who deliver them and obviously there is no continuity in the care these patients receive.

"The number of patients delivered in their homes has rapidly fallen since 1930 and many of the services for the care of mothers in their homes have been discontinued or are being reduced in scope. In one section of New York, where a large home service has been discontinued, the one hospital in the district is unable to meet the needs of that district so that patients living there are forced to seek care in hospitals a considerable distance from home, which makes prenatal care difficult to obtain."

The governmental and voluntary hospitals as a whole cooperated in the Survey, open-

6th Ave., named for a famous Brooklyn surgeon. The proposed change does not affect this institution

A campaign is to be started for a fund to build a modern hospital on or near the site of the present Samaritan, to be constructed on the unit plan. Pending this work, no more bed patients will be accepted and cases at hand will be gradually eliminated. Day clinics will continue

ST JOHN'S HOSPITAL, Long Island City, has launched a drive for funds for new equipment.

ILION HOSPITAL is planning a new addition.

THE GLENRIDGE SANATORIUM at Schenectady contemplates building new living quarters for the superintendent and staff, to cost around \$200,000

THE ENLARGED AND MODERNIZED Bath Hospital opened on May 12. The improvements cost \$130,000

THE SIX-DAY DRIVE on May 10-15 to raise \$500,000 to build the new Glens Falls Hospital was so successful that it ran \$1,412 over the mark

GROUND HAS BEEN BROKEN for the new Good Samaritan Hospital at Suffern. It will be completed early next spring

EXPANSION of the State Institute for the Study of Malignant Diseases, better known as the Gratwick Laboratory, in Buffalo, is contemplated. Prospective plans provide not only for increasing the bed capacity from 32 to 100 patients, but also for the installation of one of the most powerful X-ray machines in the country, which is expected to be beneficial to the 7,000 patients who come for aid annually

THE SISTERS of the Poor of St. Francis, who maintain a retreat at Warwick, are contemplating the construction of a new hospital. A site has been acquired and it is expected that the new hospital will be opened in 1938

Newsy Notes

THE SECOND ANNIVERSARY of the Associated Hospital Service of New York, celebrated on May 7 at the Metropolitan Club, Fifth Avenue and Sixtieth Street, marked the attainment of an enrollment of more than 355,000, it was announced by Frank Van Dyk, executive director. Mr. Van Dyk said that in reaching this number in two years the service, a non-profit corporation which administers a plan of group hospitalization for earners of wages at 3 cents a day, had set a new world's record.

The London Hospital Savings Association, which now has an enrollment of 1,750,000 and is the largest in the world, had only 160,000 contributors at the end of its second year, he said.

The anniversary was also the occasion of taking over a second floor in the office building at 370 Lexington Avenue, for the 200 employees of the service, a number which is in sharp contrast to the staff of eight with which the service opened on May 7, 1935.

THE HOSPITAL SERVICE CORPORATION of Jefferson County was organized at Watertown on May 7, with Harvey R. Waite, president of the Agricultural Insurance Company, as president.

"THE LITTLE RED WAGON," a store on wheels, containing candy, cigarettes, stationery and newspapers, started on May 17, on its journey through the corridors of the Deaconess hospital, in Buffalo.

According to plans of the Women's board two members will volunteer each day to trundle the "Wagon" through the corridors right to the bedside of every patient. When the venture becomes self-supporting, the board will engage a permanent vendor.

THE PEEKSKILL HOSPITAL Babies Alumni Organization has been formed, with the approval of the Board of Directors of the Peekskill Hospital. The Alumni are being

- 13 Outpatient department
- 14 Dietary service
- 15 Housekeeping and laundry
- 16 Engineering and maintenance of plant

Third Year

Senior Resident in Hospital Administration
Study and Supervision of Departmental
Group C

- 17 Personnel administration
- 18 Accounting and finance
- 19 Purchase and issue
- 20 Medical staff organization
- 21 Board of trustees
- 22 Community relationship
- 23 Planning and construction
- 24 A thesis

The Resident receives \$50 a month during the first year, \$75 in the second, and \$100 in the third, with complete maintenance. Dr. Golub suggests

"In a large community where there is a university, several hospitals introducing thus or a similar plan of training may affiliate with the university for a course of supplementary lectures on the subject matters discussed here, leading to a degree of Doctor in Hospital Administration.

"When opportunities in residencies in hospital administration become generally known and widespread, they cannot fail to attract properly qualified persons. With this, the problem will arise of finding suitable places for them. It is not likely that even the most able would be ready to assume the responsibilities of executive work as heads of large hospitals, but they would be prepared to head small hospitals, or to become assistants to executive heads of large hospitals, or heads of dispensaries or diagnostic clinics, and to be advanced on their records to greater responsibilities and higher positions."

Improvements

PLANS HAVE BEEN FILED for the construction of a six-story hospital at 415 West Fifty-first street, New York City, by St. Clare's Hospital, Reverend Mother M. Alice, superior and president. Robert J. Reiley, architect, places the cost at \$255,000.

. . .

PRELIMINARY PLANS for a hospital building of twelve stories, and a penthouse, designed to be one of the world centers of cancer research and treatment, have been filed for the block bounded by East Sixty-seventh and Sixty-eighth Streets, York and First Avenues, New York City.

This will be the new home of the Memorial Hospital for the Treatment of Cancer and Allied Diseases, now occupying the Central Park West blockfront between 105th and 106th Street. Dr. James Ewing is director.

James Gamble Rogers, the architect, estimated the cost of the new hospital at \$2,800,000 in the tentative plans he presented to the Manhattan Department of Buildings, but officials of the hospital explained that the final cost and the final layout had not yet been determined.

Excavation work probably will start on the site within a few weeks. The construction of the buildings probably will require about twenty months. The site for the new building was presented to the Memorial

Hospital by John D. Rockefeller Jr. about a year ago. The General Education Board made funds available for the building.

A \$250,000 SUBSCRIPTION by the Commonwealth Fund of New York to enlarge the facilities of the Columbia School of Medicine has been announced by Dr. Nicholas Murray Butler, president of the university. The subscription covers almost one-half the cost of the \$600,000 building project.

TARRYTOWN HOSPITAL AUTHORITIES are campaigning to raise \$27,000, part to be used for general improvements.

A SIX-STORY HOSPITAL and dormitory, to cost \$750,000, is to be built at 43 St. Mark's Place, by the Warschauer Haym Salomon Home for the Aged.

SAMARITAN HOSPITAL, in Brooklyn, is again to be torn down and rebuilt. It stands at 4th Ave. and 17th St., in a building that was erected when the service demands of its predecessor structure were found to have outrun its facilities.

The hospital has a branch, known as the Skene Sanitarium, on President St., near

Alumnae of the Manhattan Eye, Ear, Nose and Throat Hospital

AN "ALL STAR VARIETY SHOW" was staged at the Waldorf-Astoria on May 22 for the benefit of Israel Zion Hospital's building fund

The hospital, now the fourth largest Jewish hospital in the country, will be the second largest when the new eight-story addition is completed.

THE BUFFALO STATE HOSPITAL Employees' association held a dinner dance on May 15 in Hotel Lafayette

THE WOMEN'S BOARD of the Leonard Hospital, in Troy, have planned a card party and food sale on the lawn of the hospital, Saturday, June 26, for the general hospital benefit fund

The board is composed of wives of the medical staff doctors, women's hospital auxiliary, general duty nurses and members of the Alumnae Association.

MEMBERS of the 1937 graduating class of the Samaritan Hospital Nurses' Training School, in Troy, were guests at a banquet and dance in observance of the 35th anniversary of the Alumnae Association, at the Hotel Troy on May 13. The "Twigs" No 1 of Samaritan Hospital held a fashion show and card party on May 3 in the living room of the hospital. The proceeds will go to the hospital. This organization of young ladies has for its per-

sonnel a group of students from the Emma Willard School

THE TRUSTEES of the Potts Memorial Hospital, at Livingston, gave a dinner at the General Worth Hotel in Hudson on April 29, to acquaint the people of Hudson more fully with the work being done at the hospital. Dr Harry A Patterson, superintendent, and Dr Charles Hatfield, president of the board, were the speakers. Motion pictures of life and work at the institution were shown. The dinner was the first of a series of occasions through which the work at the Potts Memorial Hospital is to be brought closer to the people of Hudson and Columbia county

THE TENTH ANNUAL BALL for the benefit of the Nyack Hospital was held on May 14 in the auditorium of the Rockland State Hospital at Orangeburg

HONORING HIS 32 YEARS of service as member of the board of trustees of the Hudson City hospital from which he recently resigned after having served as president for 31 years, the trustees of the hospital tendered Judge Samuel B Coffin a dinner on May 12 at the General Worth Hotel in Hudson

THE WOMEN'S GUILD of the Norwegian Hospital, of Brooklyn, entertained at a tea, reception and musicale Saturday afternoon, May 8, at the Sisters' Home, 46th St. and 4th Ave

At the Helm

ISAAC SIEGMASER was elected to his third successive term as president when the Council of Organizations of Beth-El Hospital held its annual meeting in the Terrace De Luxe, Howard Ave. and Eastern Parkway, on Apr 29

AT A MEETING of the physicians of the Village of Herkimer on May 7 an organization was perfected under the name of the Herkimer Memorial Hospital Staff. Officers selected were: Chief, Dr James W Graves, assistant chief, Dr J E Canfield, secretary, Dr H C Murray, treasurer, Dr F H. Moore

president of the board of managers of the Binghamton City Hospital

MR CARL P WRIGHT, JR., Assistant Superintendent of New Haven General Hospital, became Superintendent of the United Hospital in Port Chester on May 15. Mr Wright succeeds Mr Sidney J Barnes who has been Superintendent for the past eight years and who tendered his resignation last January. Mr Wright was, for several years earlier in his career, assistant to Dr Munger at Grasslands. Later he became associated with Dr S S Goldwater now head of the New York City Department of Hospitals and for the last two years Mr Wright has been Assistant Supt. at the New Haven institution.

Z BENNETT PHELPS has been reelected

sponsored by the Junior Auxiliary of the Hospital

Under the organization all babies born at the hospital will be entitled to membership at one dollar per year, which they may continue each year as long as they live

Funds collected by the association will be used to better equip the maternity ward. One of the projects contemplated is the purchase of a respirator for infants in need of artificial respiration at birth

AT A MEETING in Buffalo on May 14 the managing directors of the various group hospital plans in New York State cities formed a permanent organization.

The state body was formed to disseminate important information and to arrange for a standard accounting method to facilitate the compilation of actuarial statistics on hospitalization experience in the entire state. Benefits to the public participating in hospitalization plans are expected to accrue from the program of the organization.

Cities represented at the meeting included New York, Rochester, Buffalo, Albany, Syracuse, Jamestown and Elmira

SUPERINTENDENT ADRIAN S TAYLOR, M D, reports that on April 5th, as a result of

a campaign conducted among its clientele, the Clifton Springs Sanitarium was able to pay \$50,000 on its mortgage, and at the same time was able to sign a new mortgage agreement for the balance with the mortgagee, Mrs Grace Jones Stewart of Buffalo, whereby she voluntarily reduced the capital debt by an additional \$71,250, refinancing the balance at a lower rate of interest over a long period of years. Four new members have been added to the medical staff

SIR HENRY H DALE, Director of the National Institute for Medical Research, London, lectured on May 7 and 10 at the Mt. Sinai Hospital in New York City on "Acetylcholine as a Chemical Transmitter of the Effects of Nerve Impulses"

ACCORDING TO A RECENT RULING of the Executive Committee of the Medical Board of Beth-el Hospital, in Brooklyn, all members of the staff seeking promotion to the rank of Associate or Attending must pass their respective Board in the specialty in which they seek promotion and all members of the Attending Staff must have passed their Boards in their respective specialty by the Fall of 1939

Events

ST JOHN'S LONG ISLAND City Hospital, the second oldest hospital in Queens, held a reception and dance in the Hotel Commodore ballroom, the night of May 7. Proceeds from the dance will go towards the purchase of much needed hospital equipment

A DINNER was given by the medical staff of Greenpoint Hospital in honor of Dr Charles A. Gordon on May 12 in the Towers Hotel

Dr Thurston Scott Welton, president of the medical board of Greenpoint Hospital, was toastmaster. The Rev Paul J Faustman, assistant director Catholic hospitals of Brooklyn, Dr Frank L Babbott, president of Long Island College of Medicine, and Dr Sigismund S Goldwater, commissioner of hospitals, were among the speakers

THE BOARD OF TRUSTEES, medical staff and auxiliaries of Jamaica Hospital gave a dinner dance in honor of Mortimer Gold, chairman of the circus recently conducted for the benefit of the institution, on May 11, in the Pomonok Club, Flushing. "The success of the circus was due largely to Mr Gold's untiring efforts," said Thomas D Austin, toastmaster

LEADERS in the judicial and political world gathered on May 6 at the Hotel Astor in New York City for a testimonial dinner to Isidor S Schweitzer, President of the Jewish Memorial Hospital

A CARD PARTY for the benefit of the Post Graduate Nurses' Endowment Fund was given on May 20 at Schrafft's, 220 West 57th Street, by the Post Graduate Nurses'

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At the Helm

ISAAC SIEGMASER was elected to his third successive term as president when the Council of Organizations of Beth-El Hospital held its annual meeting in the Terrace De Luxe, Howard Ave. and Eastern Parkway, on Apr 29

AT A MEETING of the physicians of the Village of Herkimer on May 7 an organization was perfected under the name of the Herkimer Memorial Hospital Staff Officers selected were Chief, Dr James W Graves, assistant chief, Dr J E Canfield, secretary, Dr H C Murray, treasurer, Dr F H. Moore.

Z BENNETT PHELPS has been reelected

president of the board of managers of the Binghamton City Hospital

MR. CARL P WRIGHT, JR., Assistant Superintendent of New Haven General Hospital, became Superintendent of the United Hospital in Port Chester on May 15 Mr Wright succeeds Mr Sidney J Barnes who has been Superintendent for the past eight years and who tendered his resignation last January Mr Wright was for several years earlier in his career, assistant to Dr Munger at Grasslands Later he became associated with Dr S S Goldwater now head of the New York City Department of Hospitals and for the last two years Mr Wright has been Assistant Supt at the New Haven institution

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Libel and Slander—Physical Examination

A case decided a short time ago in the highest court of one of the Southern States is of interest since it shows the extent to which the Courts will protect a physician who has made a physical examination of a party to a lawsuit, and has given testimony with regard to his findings.*

One "A" claimed that without cause a certain "G" had kicked him and that he had sustained serious injuries as a result. He brought an action against "G," and against the "W" Baking Company in whose employ "G" was at the time. In his complaint he alleged that the kick had been the cause of various conditions including a hydrocele, a rectal fistula, and impotency.

The attorneys for the defendants in the action for personal injuries made a request that "A" submit to a physical examination, to which "A" consented. Dr "B," a physician of repute, highly esteemed by the members of his profession, who specialized in genito-urinary work made the examination, which was a complete one. Dr "B" embodied his findings in a letter written to the attorneys for the defendants in that action. Upon the trial of the case the doctor testified and his report was read into evidence. The report included the following statement: "I consider the patient's mental state decidedly abnormal for a man of 25, he is mentally undeveloped in my opinion."

"A" thereafter instituted a libel suit against Dr "B" based upon the said language contained in the report. He alleged in the complaint that the statements concerning his mental condition had no connection with the purposes for which the physical examination was made, and that said statements had been made by Dr "B" without just cause or provocation, and that they were false, malicious, and untrue. He charged that Dr "B" knew the statements to be untrue and had made them for the purpose of reflecting upon his credibility and to humiliate him, and to bring him into discredit as a witness in his personal injury action. He sought damages from the doctor in the sum of \$5,000.00.

The doctor defended the charges on the theory that his letter was a privileged communication both in respect to its delivery

to the attorneys and with respect to its introduction into evidence and being read in Court. Dr "B" contended that he had not intended his language to humiliate the plaintiff and to hold him up to ridicule, but that he had made his report in obedience to his conception of his duty. He claimed that everything he had reported was germane to the issues in the personal injury case, and that in so reporting he had acted in good faith, and with reasonable cause to believe his statements were true.

Upon the trial of the libel action there was very little dispute upon the facts. The defendant, Dr "B," testified that his examination of the plaintiff had been both subjective and objective, and that he had found little or no basis for the plaintiff's claim of extensive injuries and that he necessarily had to go into the plaintiff's mental condition to show the basis for the discrepancy between the injuries claimed as resulting from the kick and what he actually found.

The record of the testimony upon the trial of the libel suit showed no dispute or quarrel between the doctor and "A" during the physical examination, and failed to show any circumstance from which ill will, malice or prejudice on the part of Dr "B" could be inferred.

Upon the conclusion of all the testimony, the jury returned a verdict in favor of the doctor and judgment of dismissal was entered. The plaintiff appealed therefrom to the highest Court in the State, and the verdict was affirmed. In so ruling the Court said in its opinion:

"Privileged communications are either absolutely privileged or qualifiedly privileged. Qualified privilege exists in a larger number of cases than does absolute privilege."

"A communication made in good faith upon any subject matter in which the party has an interest, or in reference to which he has a duty, either legal, moral or social, if made to a person having a corresponding interest or duty is qualifiedly privileged."

"Within this rule defendant had a qualified privilege to make the statement of which plaintiff complains. He had an interest in the subject matter about which he was writing. He had been employed to ascertain plaintiff's physical condition and to communicate the result of his findings to his employers. He had become possessed of information affecting

* Oakes v. Walther, 154 So. 26

their rights and it was clearly his duty to give them that information. From which it follows, that in making his report to his employers defendant committed no actionable wrong, unless he acted maliciously, which the record shows was not the case.

"Plaintiff also charged that the alleged libel was published when defendant testified in plaintiff's suit against the baking company and its co-defendant. It appears that on the trial of that case, defendant testified that he wrote the letter containing the statement of which plaintiff complains.

"The testimony complained of was given by defendant when a witness in a judicial proceeding, in response to a question of counsel. The testimony was presumptively privileged and before this presumption can be overcome the plaintiff must show affirmatively that it was not pertinent and material to the issue. This plaintiff has not done."

Treatment of Arthritis

A woman who was employed as a lady's maid consulted a physician with respect to an arthritic condition of about two months duration. She attributed her condition to the fact that she had stumbled sometime before while coming down stairs and had wrenched her back. The doctor carefully examined her and found an indication of fever, tender, hot, swollen joints, especially the right knee and hip, left ankle, right wrist, and left meta-carpophalangeal thumb joint. He concluded that she was suffering from infectious arthritis. He treated her with salicylates alternating with neocinchophen. The doctor determined, that in order to seek all sources of infection contributing to her condition, her teeth should be examined. He had X-rays taken and referred her to an Oral Surgeon. The X-ray report indicated that certain of her teeth were dead and it was concluded that very probably they were the source of an aggravation of her condition. She had certain old bridge work in her mouth, and the removal of the bridge work and the dead teeth was advised by the Oral Surgeon. Such advice was confirmed by the physician. The patient thereupon consented to the proposed dental work and it was performed with no apparent ill effects.

Sometime later, the patient instituted an action against both the physician and the dentist in which she made the claim that the defendants were negligent in advising the removal of five of her teeth and the bridge work claiming that such dental work was entirely unnecessary. It was claimed that as a result of the extraction of the teeth and bridge work, the plaintiff sustained a severe, general shock to her nervous sys-

tem and was obliged to incur considerable expense in having the extracted teeth replaced.

Just as the case was about to be reached for trial, the attorneys for the defendant dentist disposed of the action so far as their client was concerned by a nominal settlement. An attempt was made on behalf of the plaintiff to bring about a further settlement whereby the defendant physician should make a contribution but no such arrangement was consented to on behalf of the physician and finally the plaintiff consented to discontinue the action so far as the physician was concerned.

Death Following Injection Treatment of Asthma

A young, married woman consulted a physician who specialized in the treatment of allergic diseases, complaining of difficulty in breathing. After a physical examination the doctor made a diagnosis of asthma and gave her certain pollen tests. Over a period of nearly two years he administered to her, at repeated intervals from time to time, subcutaneous injections of various pollen extracts prepared by him. No ill effects resulted from any of said injections and patient's condition of asthma was clearing up satisfactorily. Finally, the doctor in the usual manner administered to the patient an injection of 6 c.c. of tree pollen solution. The injection was made subcutaneously into the right buttock and there was no evidence of anything unusual about the injection itself. The doctor tested upon inserting the needle to find out that he had not struck a vein before injecting the fluid. As the patient was about to leave the treatment room, just after she had adjusted her clothes, she sat down on a couch and told the doctor that she felt badly. He helped her to lie down on the couch and as he did he noticed that she was having difficulty in breathing and that she apparently was becoming cyanotic. He made all possible attempts to revive the patient, including injections of adrenalin but the patient did not respond and in a few minutes died.

The medical examiner investigated the case and gave the cause of death as circulatory collapse and bronchial asthma.

An action was brought by the patient's administrator in which the doctor was charged with having negligently caused the death of the patient. The case came on for trial before a judge and jury. Plaintiff's witnesses testified that upon the occasion of an injection previous to the one preceding the patient's death, an injection had caused

a reaction consisting of vomiting and severe headaches. It was claimed that the patient had so informed the doctor, although he denied any such occurrence. This occurrence, according to a physician called as an expert on behalf of the plaintiff, was a warning signal to the defendant that further treatment should not be given or that the dosage should be reduced. The claim further was that the last injection was considerably stronger than any of the previous injections. A friend of the deceased, who had accompanied her to the doctor's office, testified that just before her death she exhibited

certain symptoms which were characteristic of an anaphylactic shock. The plaintiff's theory was that these symptoms indicated that the defendant had injected the substance into the patient's vein and thus caused death. Such manifestations were denied by the defendant.

At the conclusion of a five day trial the issues in the action were submitted to the jury by the Trial Court, and after some ten hours of deliberation the jury returned a verdict in favor of the defendant, thereby exonerating him of all charges of negligence and malpractice.

THE FIGHT HAS ONLY BEGUN

While it is true that the more frank discussion of syphilis in press and radio is "a considerable advance toward the goal of eradication of that disease," we must not "allow ourselves to be lulled into the complacent belief that the attainment of this goal is now an easy matter," declares Dr. Ezra A. Wolff, Chairman of the Editorial Board of the *Bulletin* of the Medical Society of the County of Queens.

The sophistry that we can rapidly eliminate a disease such as syphilis, for which we have a known etiology, reliable diagnostic criteria and a specific treatment, simply by educating the public to avail themselves of such medical knowledge, while pleasant to contemplate, he continues, does not bear up under critical analysis.

Examination of the individual points of this argument brings to light the rather disconcerting fact that none of them is as sound as we might desire. The establishment of the etiologic agent of a disease does not, of itself, necessarily lead to rapid elimination, nor even, in many instances, to marked reduction in incidence of that disease, as witness tuberculosis. Furthermore, different strains of the *Spirocheta pallida* may differ markedly in their action on their hosts, while different degrees of reactivity on the hosts' part may lead to extremely varied, and frequently obscure manifestations of the disease. The symptom-free, sero negative, passive female carrier of infectious spirochetes is but one bizarre clinical example explainable on the basis of such variable reactivity.

Diagnostic tests likewise leave much to be desired. Darkfield examination is a highly specialized procedure, has only a short period of real effectiveness, and can

hardly be expected to come into widespread use by the individual physician. Serologic tests are useless when they could be of greatest value—within the first ten days. They require, even in their simplest form, a considerably specialized organization and careful control in order to be even reasonably accurate. Universalization of their use would require, in the United States alone, their routine application to 7,700,000 annual hospital admissions of all kinds, to 3,000,000 new syphilis patients annually, of which 650,000 are fresh infections. Financial provision and personnel for such an undertaking are not to be had for the asking.

Treatment, properly applied, is approximately 80 per cent effective, but "proper application" requires persistence and co-operation on the part of the patient, overcoming of technical difficulties of administration and toxic reactions to treatment, and, sad to relate, bolstering of the knowledge of the average general practitioner concerning modern, accepted therapy.

That even education of the highest sort is not an impregnable bulwark against syphilis is attested by the all-too-frequent incidence of extragenital chancre in physicians, and by the infection of well-informed individuals whose education has been nullified by alcoholic excesses.

Such considerations as these, while not insurmountable, point at least to the campaign against syphilis as a necessarily prolonged and tedious one. They must not be allowed to create an attitude of futility. Contrariwise, however, they can be turned to a most useful purpose if they but act as a sobering antidote against the intoxicating opiate of overconfidence.

Across the Desk

The "Menace" of Automobile Trailers

NOW WE HAVE A NEW MENACE, a new worry, the automobile trailer. Our life, our health, our civilization, our sanity, our this and that, seem to be always "menaced" by something. If we were to believe all we hear, we should live in a perpetual fright, a continual tremor, with our knees playing a staccato tattoo like castanets. Reformers with furrowed brows scream that we must sterilize half the population or else in a hundred years we shall all be in jail or the madhouse. Thirty years ago "experts" said all the world's gasoline would be gone in ten years.

The latest peril to stalk us is the harmless-looking shed or shanty on wheels that trundles along behind the old car, jerking and jolting it this way and that over the bumps and around the corners. Lots of folks have had the idea that the trailer was a blessing instead of a curse, taking them away from home cares to the freedom of the open road, and gratifying the *wanderlust* that infects us all, from the freckled rascal who runs away from school for a day in the woods to the millionaire cruising the seas in his yacht. Now they are told that this is all a mistake.

A Two-headed Peril

Well, if the trailer is a menace, it looks like a full-sized one. Figures are presented to show that 400,000 trailers will be trailing along our automobile trails this summer, housing some 1,250,000 persons, most of them unconscious of the deadly peril to themselves and the rest of us, or perhaps inclined to treat it with a good-humored "yeah?" Miami alone is said to have 13 licensed trailer camps, with a population last winter of from 5,000 to 7,000 persons. If the peril is real, then, it is not something to scoff at.

The argument is that it is of two kinds—the danger that the trailerites will eat or drink things that are bad for them, and the danger that the garbage and human waste

tossed from the trailers in the twilight along the roadside will start local epidemics.

Let us examine these perils. The first one has nothing to do especially with the trailer. Our millions of motor tourists have been eating and drinking everything they could get, anywhere they could get it, for many years, from hot-dog stands, from "Ma's luncheonette," and from roadside farms and gardens, raided in the dark of the moon, without any widespread fatal results. Why will anything worse happen to them when they ride in the trailer?

Don't Forget the Domestic Animals

The other peril is the one that is stressed more gravely by our friends who feel alarm over the situation. The modern trailer is fitted with tight metal cans provided with chemicals which are said to disinfect the garbage and human waste thoroughly. As the trailers mount into the hundreds of thousands, the fear is that the disposal of more and more waste material will become a nuisance and a menace to health.

It is true, of course, that distasteful and unpleasant possibilities lurk here, but it may be equally true that we are needlessly alarmed. We are told that the reckless tossing of waste here and there will pollute the streams, overlooking the fact that practically all streams traverse lush and verdant meadows where the cows, horses and sheep show even less care than the trailerites about where they deposit their waste products. This has been going on for centuries, without eliciting any exclamations from guardians of the public welfare. Yet it is six of one and half a dozen of the other.

And when we come to the question of roadside deposits, we must remember old Dobbin, of horse-and-buggy days, who didn't even step to the roadside in his time of need. Streets with a large horse-drawn traffic were far worse than anything the trailers are likely to cause, all without any

outbreak of plagues or any outcry of alarm

Scared Before We Are Hurt?

So it is a question whether we are not scared before we are hurt. And even if our worst fears are well-grounded, we must remember our army of health officers, who are far from blind to this situation. Some state boards of health are contemplating the issuance of rules and regulations to cover health angles of trailers operating within their borders. The city and county of San

Francisco have issued a "Sanitary Code for Automobile Trailers," which could be copied to advantage by other towns. In one sense a trailer is a residence, and may be made to conform to local housing regulations of the town or city where it stops. At any rate, we can safely trust the vigilance of our health guardians to see to it that the fears of the alarmists are not realized, and, at the same time, if the warnings have helped rouse them to activity, we can admit that the alarmists after all have their useful place in the great scheme of things.

Birth of a Superstition

RURAL DOCTORS, and city ones too, meet strange superstitions—so fantastic, indeed, as to make one wonder how in the world they ever originated. In some parts of the South the dragon fly, which the children up here call a "darning needle," is known as a "snake doctor," and is supposed to minister healing to the cotton-mouth moccasin. The folks who believe that are equally sure that when bitten by a snake you should clamp on the wound the still-quivering halves of a young chicken which, while alive, has been split open with a hatchet or knife. Irvin Cobb relates this in his story entitled "Snake Doctor." Another superstition is that a porous white stone found in the bellies of rutting deer is the only cure for a mad dog's bite—clap it on the wound and it clings like a leech and sucks the poison out! If a snapping turtle closes his jaws on your flesh, he won't let go till it thunders. And so on and so forth.

How do these curious beliefs start? No one knows. But we do know the origin of a new one, playfully launched in an antic spirit by a Massachusetts physician who sends an account of it to the *New England Journal of Medicine*. He is Dr. Raymond R. Root, of Georgetown, who declares that "the tale is quite unvarnished" and "all happened exactly as related," and "might be used as an amusing explanation of the origin of the beliefs still prevalent even within a few years in rural New England."

The Story

It was Mrs. Reade's first baby, and the 80-year-old nurse, Mrs. Paine, was worried over the delay of the afterbirth. "Don't you

think its time it came?" she asked querulously every few minutes. "I imagine it will come along most any time now," the doctor would reply. Mr. Reade, short, cross-eyed and almost totally bald, fanned his wife nervously.

The doctor sat beside the bed, one gloved hand obscured in the folds of a sterile sheet on the mother's abdomen. He could easily keep informed of the contractions of the uterus while marveling at the gilt-framed chromo, sole work of art in this transformed parlor.

"Doctor, don't you think that if Mrs. Reade blew on the back of her hand it would make it come?" Mrs. Paine had remained silent as long as possible.

"No, I don't believe it would," replied the doctor. He knew from the condition of the uterus that the placenta had not become detached.

"Well, your father told me about that way more than fifty years ago, and I've seen it work a good many times."

"I know, but times have changed in fifty years, Mrs. Paine."

Silence for a few minutes. Then, "Well, do you mind if she tries it, Doctor?"

"No, go ahead if you want to, but it won't do any good."

Delighted to be in action again, Mrs. Paine instructed the willing patient in the exact manner of clapping her hands and how to blow on the back of one of them. All was ready, the patient blew hard and long, repeated the performance—all without result.

"You see, Mrs. Paine, it's just as I told you. Times have changed," said the doctor. Somewhat chagrined, she replied, "Well,

I've seen it work, over and over again I don't see why it doesn't now"

Mischief Germinates in the Doctor's Mind

While she was speaking, the doctor felt the uterus rise under his hand. He knew that he could probably express the placenta easily now.

"But I'll tell you what will bring it, every time," he said.

"What's that?" she asked.

"If the mother will blow on a bald head, the afterbirth will come every time. Never knew it to fail."

"You don't say so! I never heard of that," she said in an astonished voice.

"Well, it will," he replied.

"Why, look, Mr. Reade is baldheaded!" she cried.

"That's so, you're right," said the doctor, apparently surprised in his turn.

"Do you suppose it would work with him?" she asked.

"Don't see why not, he's certainly bald enough."

"Can we try it?" was the next question.

"Surely, if he's willing," agreed the doctor.

The new father proved more than willing to make an asset of what he had always considered a liability. He was carefully

instructed as to the exact position to place his head for easiest reach of the patient, while Mrs. Paine nearly lost her glasses trying to miss none of the technic at the head of the bed, which might be so helpful to her upon some future occasion, and at the same time to watch for results from this maneuver so new to her.

The Hokus Pokus Works

At last all was ready, and the patient blew directly at the bald pate. At the same time, with a motion imperceptible to all, the doctor's hidden hand pressed down firmly on the uterus.

Never was therapeutic effort more promptly rewarded. Cause and effect were here synchronous. And out popped Mrs. Paine's eyes, until it seemed they might push off her spectacles completely.

"Why, Doctor! I never saw anything like that in all my life," she exclaimed.

"Well, Mrs. Paine, you see now that we've made some progress in baby cases since you and my father started out nearly sixty years ago."

"Oh, if I'd only known about that all these years," she said regretfully.

"Well, you don't always find anyone as bald as Mr. Reade," the doctor consoled her, as he began to pick up his instruments.

WAS IT A CRADLE PHONE?

"Discovering that she was going to give birth before she could travel from her home to Chicago's Maternity Center, Mrs. Leonard Nelson telephoned there for advice. With the telephone receiver clutched to her ear, she then proceeded to do what the alert obstetrician at the other end of the line told her to do. After eight minutes of this Mrs. Nelson cried that she had

borne a son and started to hang up. A neighbor, however, snatched the receiver, yelled over the phone 'She's going to have a twin!' The doctor 'Let me talk to Mrs. Nelson again' For five more minutes Mrs. Nelson followed directions, bore her second son, sighed, 'Thank you doctor,' and hung up."

—*Time*, April 26, 1937

WHAT'S THE ANSWER?

"Great disappointment" is expressed by a prominent foreign woman physician visiting America because she finds that "fewer American women physicians than I had expected hold positions of honor in the medical world." She is Dr. Martha Bruenner-Ornstein, chairman of the Austrian committee at the recent International Conference on Fever Therapy, and one of the speakers at the meeting of the New York

Physical Therapy Society at the New York Academy of Medicine. She adds "We hear so much in Europe about the great opportunities for women in America that I had expected every woman of real ability here would have been advanced to distinguished positions. I thought about every other prominent doctor here would be a woman."

Books

Books for review should be sent directly to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Hay Fever With Special Reference to Treatment by Intranasal Ionization By Clive Shields, B M Octavo of 57 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$2 50

Health Questions Answered. By W W Bauer, M D Octavo of 368 pages Indianapolis, Bobbs-Merrill Company, 1937 Cloth, \$2 00

Operative Surgery By J Shelton Horsley, M D and Isaac A Bigger, M D. Fourth edition, volumes 1 and 2 Quarto, of 1387 pages, illustrated St Louis, C V Mosby Company, 1937 Cloth, \$15 00

International Clinics A Quarterly of illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc Edited by Louis Hamman, M D Volume 1, 47th Series Octavo of 310 pages, illustrated Philadelphia, J B Lippincott Company, 1937 Cloth, \$3 00

Light Therapy By Frank Hammond Krusen, M D Second edition, revised and enlarged Octavo of 238 pages, illustrated New York, Paul B Hoeber, Inc, 1937 Cloth, \$3 50

Preoperative and Postoperative Treatment. By Robert L Mason, M D Octavo of 495 pages, illustrated Philadelphia, W B Saunders Company, 1937 Cloth, \$6 00

The Diseases of Infants and Children By J P Crozer Griffith, M D and A Graeme Mitchell, M D Second edition, revised and reset. Octavo of 1154 pages, illustrated Philadelphia, W B Saunders Company, 1937 Cloth, \$10 00

Charterhouse Rheumatism Clinic Original Papers Volume 1 Quarto of 203 pages,

illustrated New York, Oxford University Press, 1937 Cloth, \$5 25

Aids to Pathology By Harry Campbell, M D & Kenneth Campbell, M B Seventh edition 16mo of 263 pages, illustrated London, Baillière, Tindall & Cox, 1936 (William Wood & Company, Baltimore) Cloth, \$1 50

Aids to Diagnosis and Treatment of Diseases of Children. By F M B Allen, M D Seventh edition 16mo of 329 pages London, Baillière, Tindall & Cox, 1937 (William Wood & Company, Baltimore.) Cloth, \$1 50

Materia Medica, Toxicology and Pharmacognosy By William Mansfield, A M Octavo of 707 pages, illustrated. St Louis, The C V Mosby Company, 1937 Cloth, \$6 75

A Handbook on Diseases of Children Including Dietetics, Welfare and the Common Fevers. By Bruce Williamson, M D Second edition 16mo of 329 pages, illustrated. Baltimore, William Wood & Company, 1936 Cloth, \$4 00

An Introduction to General Practice. By E Kaye LeFleming, M D 16mo of 150 pages Baltimore, William Wood & Company, 1936 Cloth, \$2 00

Experimental and Clinical Studies of the Spine of the Dog By Geoffrey B Brook, D Sc Octavo of 122 pages, illustrated. Baltimore, William Wood & Company, 1936 Cloth, \$2 00

Safe Childbirth The Three Essentials Round Brim, Flexible Joints, Natural Posture By Kathleen O Vaughan, M B Octavo of 154 pages, illustrated. Baltimore, William Wood & Company, 1937 Cloth, \$3 00

REVIEWED

The Diagnosis and Treatment of Pneumonia. By Campbell P Howard, M D (Reprinted from Oxford Monographs on Diagnosis and Treatment) Octavo of 373 pages New York, Oxford University Press, 1936 Cloth, \$6 50

Howard's monograph on pneumonia, bronchopneumonia and common cold is one of the most outstanding to date, and richly

deserves its reprinting from *Oxford Monographs on diagnosis and treatment*

The subjects are thoroughly treated and the compilation of facts and the digest of literature soundly handled The bibliography is excellent

The chapter on prognosis may be cited as evidence of the broad sweep of the volume. Herein are discussed the factors of social

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W 42nd St., N Y C.) postage prepaid. Order must be accompanied by remittance covering published price.

status, residence race, sex, age ("The old are likely to die, the young recover"—Sturges), occupation, habits and disease, alcoholism, obesity, and certain symptoms and signs—high temperature, rising pulse, falling blood pressure, rising respiratory rate, cyanosis, leucopenia, extent of the lung lesion, complications, the acquired partial immunity of previous attacks, and the virulence of the infecting organisms with the persistence of blood stream infection

Thirty-two pages of the 256 are devoted to treatment. Serum receives the emphasis that it deserves. The use of digitalis is thus stated,—“only when heart disease co-exists or when auricular fibrillation or some other evidence of serious myocardial change has made its appearance”

Alcohol receives the following *coup de grâce* “It is valueless, if not actually harmful, except to the habitual user, when regular moderate doses may prevent the development of delirium tremens, which is more apt to be precipitated by the sudden withdrawal of all alcoholic beverages”

FRANK BETHEL CROSS

Medical Classics Volume 1, Number 1, September 1936. Compiled by Emerson Crosby Kelly, M.D. Quarto of 78 pages, illustrated. Baltimore, Williams & Wilkins Company, 1936. Paper

This is the first number of a new publication, which “aims to awaken the interest of all medical workers in the historical side of their profession. The work will be useful, not merely ornamental.” The subject chosen for this first issue is Sir James Paget and his original observations on Osteitis Deformans and Paget’s Disease of the Mammary Gland. The author has given us a fine monograph, with a portrait of Sir James, a complete biography, and the details, with illustrations and photostats of the distinguished surgeon’s original work. As time rolls on, this new venture must prove a great stimulus to others in the field and an invaluable contribution to the cultural side of medicine. We wish for it all success.

J M VAN COTT

Bailey’s Text-book of Histology (Elwyn and Strong). Ninth edition, revised and rewritten by Philip E. Smith, Ph.D. Octavo of 773 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$6.00

This edition has been revised by the Professor, and four of his associates, of the Department of Anatomy of The College of Physicians and Surgeons, Columbia University.

Several chapters have been completely rewritten, and notable reorganization of

content contrasts this with the previous issue. The relationship of histology as a structural science to unit physiology and pathology has been maintained, and the book as a whole retains its feature of clear presentation of facts and, when necessary, opposing views. With no wish to detract from its scope, as “Bailey” certainly is not a simplified textbook, we believe that its services as a reference in histology for practitioners would be further enhanced by the inclusion of references. Its general worth is well known and assures it a place in the library of most physicians.

IRVING M. DERBY

Eugenical Sterilization: A Reorientation of the Problem. By The Committee of the American Neurological Association for the Investigation of Eugenical Sterilization. Octavo of 21 pages, illustrated. New York, The Macmillan Company, 1936. Cloth, \$3.00

This collective study on eugenical sterilization was undertaken by a committee of five members of the American Neurological Association, who have aimed to investigate this moot topic not as eugenic idealists but as critical practitioners. After a lengthy introductory consideration of the individual laws of each state, and the familiarly known arguments for and against sterilization, as well as the attitudes of different religious sects, the authors then proceed to the really difficult problem to which they were assigned. And whereas the real proof for their contentions may be the subject of controversy because the data is too generalized, they have raised a real issue which deserves the attention of eugenicist and clinician alike. Whereas formerly eugenics was beyond the scope of the clinician, it has now made its inroads through the negation of supposedly scientific data. In everyday parlance, it would mean gaining entry through the back door.

This group of physicians contends that eugenics has received scant support on any basis from genetics. They maintain that heredity in mental diseases cannot be classified on Mendelian principles especially because the most common psychiatric disorders are not clinical entities. Dementia precox is typical of these. Then again, diagnoses among different observers vary widely. Moreover, the genetic approach to crime has been unsatisfactory, because of the definite influence of education, training, and better health and economic conditions in the prevention and control of crime. And as long as human conduct and character are matters of too complex a nature, sterilization should be recommended only for

cases which cannot be controlled through other means

EMANUEL KRIMSKY

Diseases of Infancy and Childhood By Wilfrid Sheldon, M D Octavo of 738 pages, illustrated Philadelphia, P Blakiston's Son & Company, Inc., 1936 Cloth, \$7 00

Sheldons' book is written in the typically interesting British manner. It accomplishes quite well the author's purpose to make it more than a handbook of pediatrics and still not compete with larger works of reference.

We found it interesting more as the exposition of a skilled pediatrician's views on the whole general field of pediatrics than as a specific contribution of special merit.

CHARLES A WEYMULLER

Dietetics for the Clinician By Milton A. Bridges, M D Third edition Octavo of 1055 pages Philadelphia, Lea & Febiger, 1937 Cloth, \$10 00

This is the third edition of a volume which has found great favor with the medical profession.

The material assembled is physiologically sound and thoroughly practical. The author has added an important chapter on the analyses of food in the edible state. The literature on diet therapy has been extensively reviewed and the author has made a survey of the various dietary fads.

Recognized specialists in their respective fields have contributed to the excellence of the volume. This present edition should be of value, not only to the general practitioner, but to those employed in the dietetic departments of hospitals and clinics.

This book should meet with the enthusiastic approval of all

IRVING GRAY

Physical Diagnosis By Ralph H. Major, M D Octavo of 457 pages, illustrated Philadelphia, W B Saunders Company, 1937 Cloth, \$5 00

The illustrations in this work are many and excellent. The author's frequent reference to original descriptions of the masters, Biot, Skoda, and many others, make it most interesting. The book stresses and proves, in this age of apparatus, the fundamental importance of inspection, palpation, percussion and auscultation. The chapters on the heart, pulse and cardiovascular diseases are extremely interesting.

This book is indeed timely and is not only an invaluable aid to the student who will be stimulated to read and study the works of the old masters, but is also of equal importance to all practitioners of medicine.

CHARLES SHOOKHOFF

A Synopsis of Surgical Anatomy By Alexander Lee McGregor, F.R.C.S. Third edition Duodecimo of 664 pages, illustrated. Baltimore, William Wood and Company, 1936 Cloth, \$6 00

This is the third edition of a work which was first presented to the profession in 1932 by Dr McGregor and is essentially the same as the second edition, except that more data relating to nerves of the thyroid and adrenal glands has been added. There is also a more detailed description of hernia of the diaphragm. New terminology is used throughout the volume. This book fulfills in an excellent manner the object of the author, that is, practical anatomical facts for student and practitioner.

Black and white illustrations cover practically the entire book. It is divided into two parts, the first dealing with the normal and the second with the abnormal. This arrangement begins with the head in each part and goes on through the body, thus making an excellent opportunity for the reader to correlate the normal with the abnormal. The last chapter is an exceptional one where the author takes up in a practical way the anatomy of surgical approach.

One criticism that might be made is, that the text for the most part is too small for comfortable reading. The concise manner in which the black and white drawings have been executed adds a great deal to the work. This volume should be an asset both to the student and to the practitioner.

HEBERT T WIKLE

Childless A Study of Sterility, Its Causes and Treatment. By Sam G. Berkow, M D Octavo of 307 pages, illustrated New York, Lee Furman, Inc., 1937 Cloth, \$3 00

This is a popular Science treatise, not a sex book, which discusses sterility and the biochemistry of fertility. Normal forms are described, as well as various types of abnormal forms, such as gigantism, dwarfism, cretinism and the like, with their background and importance as factors in the problem of sterility given proper weight. All are warned of the dangers of birth control and abortion. That part of the public which is fortunate enough to be somewhat above the average educational level will find this a very interesting book. The author's style is smooth and liquid and his science sound.

This book is a welcome addition to the public's popular science library, and is absolutely free from the objectionable features so commonly found in these books today. Physicians without special knowledge of sterility will enjoy this book.

CHARLES A. GORDON

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THE SEQUELAE OF HEAD INJURY

ISRAEL STRAUSS, M D and NATHAN SAVITSKY, M D, *New York City*

We have discussed the subject of head injury in previous papers^{8,9}. In this paper we desire to make further comments on the subject of sequelae of head injury exclusive of traumatic epilepsy.

Until very recently, the problem of the remote consequences of head blows was sadly neglected by physicians. The alarming number of industrial and motor accidents has, however, resulted in a striking increase in the incidence of persons suffering from the effects of head trauma. The socio-economic implications of this problem are evident and the question of the evaluation of the clinical significance of the residuals of head trauma is engaging the attention of many investigators throughout the world.

The lack of thorough clinical investigation of the injured immediately after the accident has added to the difficulties inherent in the problem.¹ The injured are usually admitted to surgical wards where they are examined by physicians whose interests lie mainly in surgical therapy and management. These physicians have neither the time nor the training to study the patient carefully from the neurologic and psychiatric standpoints. There is no doubt that expert opinions regarding the meaning of the sequelae of head injury would be modified if it could be shown that immediately after the injury there was ample evidence of focal injury to cerebral tissue. The few autopsies obtained in patients who died from other causes long after a head injury have illustrated

the surprisingly extensive destruction of cerebral tissue with minimal or no clinical evidence of focal disease. A fair decision as to the meaning of these remote syndromes cannot be made without an accurate study of the patient during the first few days after the accident. An instructive example is that of a patient examined nine months after a severe head injury in whom a definite right homonymous hemianopsia was found. When the hospital records were examined there was no mention of this extremely significant finding. In the absence of other causes the examiner was forced into the position of correlating this present symptom with the other clinical changes and postulating that it was due to brain destruction at the time of the injury. On the other hand it might be objected, and justifiably so, that this condition may have been due to some unrelated cause or even to a second accident. In such a case a fair decision is difficult to make. This example is not at all exceptional.

The search for objective signs of focal and more diffuse injury to the brain continues.²⁻⁴ This emphasis on the importance of objective findings in forming an opinion regarding seriousness of injury is due to a pernicious though inevitable effect on our medical thinking of legal procedure and rules of evidence. They should not play so important a role in medical practice. The total behavior of the patient, his ability to think, his attitude towards reality, his affective re-

Address by Dr Israel Strauss at the Annual Graduate Fortnight of the New York Academy of Medicine, October, 1936

sponses, as well as the numerous subjective complaints are just as important in determining our diagnoses and opinion as mild reflex changes, disturbances in pupillary reactions or dyskinetic phenomena. There can be no doubt that many physicians prefer to use these objective neurologic signs as criteria of seriousness of injury because they are more practical, much easier to determine clinically, and do not require elaborate investigations and study. Such an attitude on the part of the examining physician is often obviously a defense reaction because of his ignorance of functional, psychic disorders, and his unwillingness to acquire the knowledge necessary to a proper handling of such problems. It is distinctly unfair to state that a patient has no thinking difficulty and that there has been no dilapidation of his personality because we are either too busy or not interested enough to spend the necessary time to establish such facts. The philosophy of the seeking for objective criteria needs a radical overhauling.

Because accurate neurologic studies of the injured before the accident are rarely available, great caution must be exercised in the evaluation of a particular objective sign which may very well be the sequel of numerous other noxious agents to which the individual may have been exposed throughout his life. A diminished ankle jerk may have been due to an old mild sciatic neuritis and a pathological reflex the result of a transitory encephalitis during an infectious disease of childhood. We are forced, therefore, in our ultimate decision to emphasize the importance of disturbances in total behavior, of alterations in the individual's ability to grapple with real problems and adjust at his previous level. The materialism of recent medical thinking and the reflexological tendency in clinical practice are evident schematizations and oversimplifications of the complex problems before us.

Further study of the post-concussion syndrome has confirmed its validity.^{6, 8} This symptom complex was originally described by Friedman in 1892 and its clinical significance emphasized by Pierre Marie⁷ in 1916. In our previous communications^{8, 9} we merely re-emphasized the importance and reconsidered the significance of this subjective syndrome following head blows. We stressed especially

its differentiation from the psychogenic response to trauma. The headaches in the post-concussion syndrome are usually true pains or aches, recurring paroxysmally, and becoming definitely worse in reaction to mental and physical effort and during inclement weather. These pains usually become less intense and recur less frequently as time goes on. They are often intensified by radical alterations in the position of the head and body. Attacks of unsteadiness and occasionally true vertiginous experiences may or may not be present. Ready fatigue, varied ocular symptoms, irritability, and emotional instability are almost always present. Discomfort with conjugate lateral or upward gaze is characteristic. The psychogenic headaches are usually described as sensations of tightness or constriction in the head and occasionally as burning paresthesiae. They are much less paroxysmal, are closely related to alterations in mood, and often become worse as the personal and socio-economic difficulties increase.

It must be borne in mind that the post-concussion syndrome is a purely clinical concept referring to the frequent persistence of subjective distress following a concussion. The term concussion itself is very unclear, but has for centuries been used to designate what happens to the brain following severe injury when no evident morphologic changes in that organ take place. There are only a limited number of ways in which the brain as other organs can react to trauma of any type. The only way in which the brain as a whole can respond to severe trauma is by loss of consciousness. The physiologic and morphologic changes may be very different though the clinical pattern is identical. A concussion in one case may be associated with numerous petechial hemorrhages, in another diffuse edema of the cerebrum, in a third significant interference with cerebrospinal fluid hydrodynamics, in a fourth widespread vaso-spasms with impairment of circulation and in others by a marked subarachnoid hemorrhage. In some cases multiple small contusions in silent areas of the brain are undoubtedly present.

If we are to continue using the term concussion we must bear in mind its limitations. Many have recently objected to its continued uncritical use.¹⁰ Every effort

should be made to determine as precisely as possible just exactly what happens in the particular instance of head injury. In such clinical investigations one must not forget that reversible alterations in functions and persistent physiologic disorders without gross tissue changes may exist and account for the distress of the injured. The demand of those schooled in the Virchow theories of pathogenesis for a morphologic substratum for all disease entities is no longer justified. Vasospasms, changes in tissue irritability, disturbances in meningeal permeability, and cerebrospinal fluid production are as important as the small hemorrhages, focal lacerations of brain tissue, and edema of the brain.

The encephalogram has been of some help in the study of the sequelae of head injury. It has proved especially useful in the diagnosis of those cases of traumatic epilepsy in which a retracted scar has caused homolateral dilatation of the ventricular system with a pulling of the ventricles towards the side of the lesion. The evaluation of the other changes must await the accumulation of more control observations. The normal range of variations has not yet been satisfactorily established. The encephalogram of older individuals is not that of the younger adult. Undoubtedly many errors in interpretation have been made through variations in the technic used by different observers. More rigid observance of a standardized technic is extremely essential. We are convinced that a revision of opinion is necessary in certain cases in which we previously stressed the significance of the presence of large accumulations of air over the cortex of one hemisphere or both. These aerographic changes are probably due to occasional collections of subdural air which one sometimes sees in normal individuals. The presence of this air is unquestionably due to some fault in technic, and no clinical significance should be attached to its existence. Pre-existing and previous disease such as transitory hydrocephalus, arteriosclerosis, and old unrecognized injuries make the interpretation of the encephalogram in the injured individual a difficult problem. The normal encephalogram does not at all rule out even diffuse intracerebral changes. The repetition of the encephalogram during the course of a protracted post-traumatic syndrome may

throw light on the pathogenesis of some post-traumatic complaints. This can only be of value if the same technic is used throughout. Like all instruments of precision it should be used judiciously. The aerograms must be considered in the light of the total clinical picture. It is evident that some clinicians have overemphasized the value of the encephalogram in the interpretation of the post-traumatic syndrome.¹¹ Lippens and Dejardin present two cases with similar complaints and reject one of them because the encephalographic findings are negative. Such a conclusion based on encephalographic findings alone is untenable. The encephalogram by itself should no longer be the deciding point in the crystallization of the opinion of the expert.

We objected in previous studies to the use of the term traumatic neurosis. It is, however, a convenient designation if it is used only as a generic term to include the wide range of psychogenic reactions to trauma and its sequelae. There is no characteristic traumatic neurosis. There is no neurotic symptom-complex which is found only after trauma to the head. The organic subjective symptom-complex which some have been calling the post-concussion syndrome has been erroneously called traumatic neurosis. The nature of the neurotic symptom formation in the particular case varies and depends partly on the premorbid makeup of the injured. The trauma may cause an acute reactive transitory terror neurosis or it may precipitate a psychoneurotic syndrome which may last for many years. The trauma may reanimate infantile memories and complexes and perhaps even by its organic effect on the brain interfere with successful repression. This often permits the emergence into consciousness of significant subconscious constellations. The neurotic syndrome in these cases is an effort on the part of the psyche to defend itself against anxiety. Careful study of neuroses following trauma reveals every type of reaction encountered in nontraumatic practice. We have observed phobia formation and obsessive thinking appear immediately after a head injury in individuals who showed no tendency to neurotic symptom formation before the accident. The most frequent reaction pattern is undoubtedly that of hysteria. The coex-

istence of hysterical manifestations and organic sequelae has been present in a very large percentage of the cases that have come under our observation. Such concomitance of psychogenic and organic sequelae creates a clinical picture which is often quite complicated.

We have on a number of occasions noted the persistence of the organic and the disappearance of the hysterical manifestations after a satisfactory money settlement was made. This was especially striking in a previously reported case of traumatic alexia with superimposed hysterical sensory changes. Such a course of events does not indicate that the desire for compensation was the only cause for the existence of the psychogenic symptom complex. It does show that removal of secondary gain in illness facilitates and hastens the healing of the psychogenic reactions to trauma. The persistence and even intensification of psychogenic symptom complexes after unusually satisfactory money settlements, although less common, is occasionally seen. We previously recorded such a case¹² and have since encountered others. In these cases the injury interfered with hitherto successful intrapsychic adjustments. Some type of equilibrium was destroyed making it necessary for the injured to resort to neurotic symptom formation. In spite of the unquestionable existence of other determinants one cannot deny the role which the trauma played in the development of the neurotic reactions. Among several striking instances we will cite the following example.

A forty-two year old housewife was seen for sudden complete weakness of the right upper extremity of two days' duration and double vision for one day. This diplopia did not disappear when one eye was closed. She had been in an automobile accident six months before. She was thrown forward and hit her lip against the handle which opens the windshield. She was then thrown backward and towards the side of the car striking the window frame of the door with her head. There was slight bleeding from the nose, contusion in the occipital region, and ecchymoses around the right eye. Double vision which followed the accident lasted for six weeks. Numbness of the right side of her body and head appeared after the injury with weakness of the right side of the body which persisted and had been becoming worse before the sudden complete

loss of power in the right upper limb. The examination showed a functional hemisensory syndrome on the right side with monocular diplopia. All the special senses on the right side were also involved. This progressive intensification of a hysterical syndrome came on after a very satisfactory settlement had been made. There was no pending litigation and no possibility of reopening the case.

Psychological study of this woman revealed many personal difficulties and frustrations. The nature of this continued intrapsychic turbulence has no bearing on the point which we would like to re-emphasize. These same problems confronted this woman before the accident. She was able to rally more normal defense mechanisms and apparently adjusted without any neurotic symptom formation. In fact fifteen years before she was seen, her children, husband, father, and mother were killed in an automobile accident and nothing unusual happened to her at that time. How can one deny that the injury to her head played a very significant part in the appearance and the persistence of severe hysterical symptoms even after an adequate money settlement?

The injury not infrequently impairs the individual's ability to tolerate and adjust to difficult situations. We had the opportunity of studying a man who dramatically insisted on his inability to remain in his home and continue living with his wife. Domestic infelicity based on conjugal incompatibility had been present for a long time. He was, however, able to more or less contentedly live at home. He found it impossible to continue in the same way after the injury. His anxiety at home was most intense and his hostility to his wife often resulted in assaultive behavior which ultimately made a separation necessary. The existence, therefore, of problems and personal difficulties before the accident does not invalidate the theory that the trauma, either by its organic or psychic effects can alter the individual's ability to handle them as adequately as before the injury. It is occasionally difficult to differentiate this impaired ability to solve one's problems, undoubtedly related to the injury, from the not infrequent capitalization of the injury to further other psychic ends. This latter reaction pattern borders very closely on malingering. An incompetent person hides behind an injury, accounting in this

way for his repeated failures, a neglected wife exaggerates her symptoms to recapture the affections of her husband. We recently studied the case of a man who following an industrial injury failed to improve though there was no monetary gain in further illness. This man apparently clung tenaciously to his symptoms because they made his adjustment to a distressing sexual impotence much easier. We believe that such capitalization of existing defects and symptoms because of their psychic economic value may take place subconsciously. It may take a long time to give these patients insight into the purpose of their continued invalidism.

Deliberate and conscious simulation and exaggeration of symptoms to aid in adjustment does also take place. In such instances we are dealing with malingerers. The injured will often seize the opportunity of obtaining money to help him out of financial straits. In these instances the cases should be settled only for the injury sustained. The nervous symptoms are unrelated to the accident.

The problem of the interference with existent compensatory mechanisms by trauma to the head has received very little attention. The capacity of the organism to adjust to psychic and somatic defects is striking. Refractive errors are overcome readily by more intense activity of the accommodating mechanism so that correction by glasses may not be necessary for a long time. A woman of forty-nine had to be given a pair of glasses to aid her vision for the first time after a moderately severe head injury. We have observed many instances of those who after a head injury became again aware of a hearing defect and even tinnitus due to an old ear infection. The most instructive instance of impairment of such a compensatory process was that of a twenty-seven year old painter who began to stutter immediately after his head was injured in an automobile collision. He was a left handed individual who had no difficulties in speech, reading or writing up to the time of the accident in spite of the fact that he had been forced to use his right hand all his life for writing and other dexterous movements. He was able in some way to master the difficulties which unquestionably accompanied this change of dominance. He was no longer

able to do so after the blow to his head.

Investigators of the subject of the neuroses following trauma frequently allude to the observations on the war neuroses to support whatever contentions they hold. We have previously commented on the fallacy of comparing war experiences with head injuries and the traumatic neuroses of civilian life. The simultaneous exposure of thousands of individuals to an identical constellation of harrowing experiences permitted the accumulation of valuable observations as to what happened to that large group of human beings under the particular circumstances. We wish to repeat that these war experiences cannot in any way serve as a control study. While the morbid manifestations of the war neuroses and the psychogenic reactions of civil life are similar the problems of psychogenesis are not at all comparable. Control studies of the natural history of the neurotic reactions in civil life are lacking. In evaluating the individual problem in private practice one has, therefore, to call upon one's own experience. We must give up this tendency to call upon the war experience in the interpretation of neuroses of civil life.

There is also no question about the fact that litigation is an added strain and undoubtedly tends to aggravate neurotic symptoms. Under our legal system the injured is unfortunately burdened by the necessity of defending himself against those who oppose his claims. He is supposed to be a plaintiff although he is really a defendant. It is inconceivable that any normal human being should not react unfavorably to this well-known complex of disturbing influences popularly known as a trial. The so-called litigation neuroses is a fiction. What is commonly called litigation neurosis is really malingering. If simulation does not exist we are dealing with a true neurosis perhaps aggravated by the litigation. Neurotic symptom formation is an unconscious response to intrapsychic maladjustment. The stress and strain of the trial is only one of many etiological factors. It is astounding to note the persistent prevalence of the notion that malingering is synonymous with the unconscious psychologic response to trauma.

The physician cannot and should never play the role of prosecutor or detective,

bent on uncovering intent to defraud. Such an attitude impairs the desired rapport between the physician and the injured and precludes successful treatment. It engenders resentment in the patient and encourages the flowering of psychogenic complications. The expert's opinion is based on evidence presented to him. He is very often not in a position to verify whether the injured was unconscious or did vomit after the accident. Such checking up of facts should be done by other agencies. The expert should readily alter his opinion if new, significant anamnestic data is presented to him. He also cannot but avoid the impression which the total behavior of the patient makes upon him. The accuracy of such an appraisal must depend on the keenness and experience of the particular physician. Hard and fast rules which will aid the tyro in detecting the simulator can hardly be made. Our added experiences since our last published studies confirm the previous impression that true malingering is extremely rare though exaggeration is not uncommon.

It is important to stress the fact that adequate motivation and incentive to ignore discomfort may operate unconsciously to raise the threshold for pain and distress in a particular individual. The polo and football players are pointed to as examples of those who in spite of severe head injuries rarely have the characteristic post-concussion syndrome. In the first place no accurate statistics are available indicating the percentage of these athletes who have no complaints following severe head blows. The isolated case is emphasized. There are unquestionably similar cases who are injured during work but who never report the injury and continue to work in spite of distress. The compensation physicians encounter only those workers who complain. In the second place it is important to emphasize that some individuals if adequately motivated can ignore even very intense subjective distress. The desire to be hailed as a hero and to avoid the opprobrium of being considered a complainer are relatively powerful determinants of the conduct of these athletes. They are bred in an atmosphere where the ability to suffer without complaint is praised. These demands of the social milieu of the injured

athlete have a significant effect on the threshold for pain. The injured football player has to choose between somatic discomfort and ego frustration. He usually chooses the former.

The following case illustrates the inaccuracy with which information regarding injured athletes is gathered.

A twenty-one year old college student was seen complaining of headaches and dizziness since an injury to his head during a football game one day before the examination. His head struck that of another player. Though there was no loss of consciousness he was confused for a short period following the impact. He vomited immediately after the accident. No evidence of focal injury to the nervous system was found. He told of another football injury four years before during which he was severely hurt. He bled from the nose and mouth at that time. He remained in a hospital for about thirty-six hours. He continued to have paroxysmal pains in the head up to nine months before the second accident. Dizziness with change of position persisted up to two days before the second injury. He did not report this continued subjective distress to the university physician or his athletic advisors. He admitted very readily that he was motivated by a desire not to be excluded from participation in football activities. He would not have been permitted to play until he was entirely free of post-traumatic symptoms.

The repeated assertion that the injured always deliberately exaggerate can only be made by those who lack understanding of the intricacies of the psychic mechanism. The subliminal and subconscious nature of many of the psychological processes involved in the reaction to trauma are not recognized sufficiently. The assumption that the average working man seeks consciously to lengthen the period of his disability to obtain money without working is not borne out by our experience. The monetary gain in illness is in most cases hardly sufficient to warrant such behavior in normal times. The role of the profit-motive in determining the conduct of the workman and those injured in industrial accidents has been overemphasized. Everybody seeks a state of well-being, and the forces impelling one in that direction are usually more powerful than temporary economic security. It must be admitted that in times of unusual economic insecurity the secondary gain in illness, the profit-motive may be of more

significance than at other times. It would be very illuminating to study the records of post-traumatic syndromes in the files of the Compensation Commission to compare the course of the cases during depressions with those seen during periods of relative prosperity. It must be re-emphasized that while intensifying the symptoms it is rarely the sole cause of their appearance. While it may lead to prolongation of illness, it is not the primary cause of the development of the neurosis.

The question of the differences in response to similar injuries has added to the perplexities of the problem before us. In evaluating an apparently serious response to a relatively minor injury one must take cognizance of the premorbid organization of the injured. While injuries may be approximately similar the precise dynamics of the nature of the impact of the head with the solid object may differ. One can very rarely accurately reconstruct exactly what happened during a particular accident. There are too many variables involved. It is occasionally difficult to explain why severe and incapacitating post-concussion symptoms follow relatively mild head injuries.

The relation of head trauma to brain tumor and general paresis deserves some comment. No cogent proof has yet been offered of a causal connection between trauma and brain tumor. In spite of the numerous reports in the literature emphasizing especially the aggravating role of head trauma in brain tumor and dementia paralytica, we have not been able to accept the hypotheses offered by these investigators. One cannot avoid the impression that in most cases the injury is entirely coincidental and that often the pre-existing tumor was responsible for the accident. The statements that the injured were perfectly well before the head trauma cannot be accepted as proof of the absence of intracranial pathologic changes. Very few of these claimants had been examined by competent neuropsychiatrists. Any other proof of the patient's being perfectly well cannot be accepted. Both brain tumor and general paresis may have an acute onset without any trauma in patients who had adjusted perfectly well up to the onset of the illness. The absence of increased incidence of brain tumor and

general paresis in large series of head injuries which have been followed confirms the clinical impression that no causal relation has as yet been established between head trauma, general paresis, and brain tumor.

The treatment of the sequelae of head injury is a sorely neglected subject. The injured are examined and re-examined. Signs of improvement or aggravation are noted carefully. Questions of disability are elaborately considered and discussed in conference. Relatively little attention is paid to the problem of the amelioration of the distress of the injured. They can be made much more comfortable and they clear up more rapidly when attention is given to the problem of therapy. An initial period of rest following every head injury is important. We have noted for a long time that those who have longer periods of rest immediately after the injury have less severe and disabling post-concussion syndromes. The headaches are not marked when the patient rests. Symptomatic therapy is indicated. Mild dehydration sometimes helps. When the headaches become particularly refractory a lumbar puncture should be done. The lumbar puncture occasionally rules out other coexisting organic disease. The patient is sometimes relieved by the removal of spinal fluid. We have repeatedly seen patients who had almost intolerable headaches for months completely relieved by the removal of ten or fifteen c.c. of spinal fluid. In some cases the endolumbar injection of air as recommended by Penfield results in gratifying alleviation of symptoms.

Psychotherapy is a very important adjuvant. The workman should be assured and reassured very early during the course of his illness that he has not sustained a severe injury to the brain. Investigations regarding the validity of claims should be made as speedily as possible and compensation due to the injured should be given without unnecessary delays. The examiners for carriers should treat the injured with as much care and consideration as they accord to those who come to them in private practice.

Attention should be paid to the personal life and problems of the injured and advice should be given to them if necessary. Occasionally the solution of some

other problem which intensifies the post-traumatic complaints may result in rapid recovery

In following the head injury one must be careful not to miss the occasional case of subdural hematoma. If headaches become unusually refractory; if the patient appears dull and somnolent, if weakness in a limb appears, and especially if a slow pulse is present with these symptoms, the patient should be hospitalized for further investigation. In the examination of large numbers of these patients the physician

will occasionally miss this type of case unless he is on his guard

The whole subject of trauma and the nervous system needs considerable housecleaning. We must divest ourselves of prejudices. Schools of thought have no place in medicine. We should all belong to one school whose aim is to seek the truth and alleviate the suffering of the injured.

116 W. 59 St.

1882 GRAND CONCOURSE

References

- 1 Esser, A. *Med. Klinik*, 31 1001, 1935
- 2 Rebucci, Uberto. *Il Polichinico*, 4 843, 1934
- 3 Weill, G. A. *Revue d'oto-neuro-ophthalmol.*, 12 786, 1934
- 4 Klat, J. *Klin. Monatsbl. f. Augenheilk.*, 94 500, 1935
- 5 Kuhne, W. *Monatsch. f. Unfallheilk.*, 41 12, 1934
- 6 Aubineau. *Annales d'oculistique*, page 205, 1936
- 7 Marie Pierre. *Rev. Neur.*, 23 453, 1916
- 8 Strauss and Savitsky. *Arch. Neur. and Psychiat.*, 31 893, 1934
- 9 Savitsky, N. *New York State Journal of Medicine*, 34 909, 1934
- 10 Hauptmann. *Arch. f. Psychiat. u. Nervenkrankh.*, 101 805, 1934
- 11 Lippens, A. and Dejardin, L. *Presse Med.*, 42 456, 1934
- 12 Strauss, I. and Savitsky, N. *American Journal of Psychiatry*, 91 189, 1934

"PART-TIME DOCTORS" IN THE SCHOOLS

Denouncing the present health service for physical defects among school children as "inefficient and ridiculous," Professor Jesse F. Williams, of Teachers College, Columbia, urges the employment of specially trained child health examiners rather than "part-time doctors."

Dr. Williams, who is chairman of the department of physical education, spoke at the annual conference of the American Physical Education Association in the Pennsylvania a few weeks ago.

"Part-time doctors," he said, are merely interested in "temporarily supplementing their incomes." These physicians, for the most part, he said, fail to "study the school problem, develop a professional attitude toward it and realize for children the full possibilities inherent in the service."

The ordinary physician lacks special training necessary for the job, because medical schools emphasize the diagnosis and treatment of a disease instead of preventive medicine," he said.

"For this reason it appears that a new worker is needed in the schools who will

be trained to recognize signs and symptoms of disease and defects and who will have the responsibility for conducting educationally sound health examinations. Such a person could be prepared in two years of a four-year undergraduate course."

Dr. Williams foresaw difficulties in the way of adoption of his plan, criticism by the medical profession and State laws that restrict health examinations to physicians.

But, Dr. Williams asked, "What is the sense of using someone in the schools who has spent all his professional training in learning things that don't function in the work he does, such as gynecology, obstetrics, pharmacology, legal medicine, microscopic diagnosis, surgery and pathology?"

Although the examination of children is now "miserably" done in the schools, Dr. Williams said the use of medical and surgical service is "even more unsatisfactory."

However, he added, with the health examiner plan in operation social health services for certain children could be inaugurated.

Dr. Irving Busch, of New York, has gone to Spain to relieve Dr. Edward H. Barsky, also of New York, as chief surgeon of the

American hospital established in Spain by the Medical Bureau to Aid Spanish Democracy.

SYRINGOMYELIA TREATED BY X-RAY

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From St Vincent's Hospital, West New Brighton

Syringomyelia has generally been considered a hopeless condition, and amenable to practically no form of treatment. The efficacy of roentgen ray therapy in this disease is not generally appreciated by the profession. Articles on this subject have appeared but little in American literature and almost exclusively in radiological journals. We have found this treatment to give a very gratifying result in a case as herein reported, and feel that its value should be brought to the attention of the profession at large.

Syringomyelia is a disease of the spinal cord characterized by dissociation of pain and temperature sensation, together with muscular atrophy. The latter usually begins in the interossei muscles of the hand since the cervical involvement is most common. It is a chronic progressive disease presenting a large variety of clinical syndromes since it may involve any part of the cord and medulla extending at times even to the pons, midbrain, and cerebrum. The cause of death is more often an intercurrent disease, tuberculosis having the greatest incidence. Because the sphincters and bladder are involved in the lumbar type, retrograde pyelonephritis is a frequent cause of death. Destruction of vital centers in the bulbar type with resulting death is rare. It must be differentiated from multiple sclerosis, amyotrophic lateral sclerosis, tumors of cord with spastic paraplegia, progressive muscular atrophy, central myelitis, syphilitic meningomyelitis, polyneuritis, leprosy, pellagra, Raynaud's disease, and ergotism.

The pathology is one of proliferating gliosis, with cavitation caused by softening of the central mass of glial cells. It may be limited, producing central gliosis, or infiltrative, resulting in diffuse gliosis. The cavity is usually posterior, small or large, single or multiple, sometimes extending

tending from equina to pons. It can be empty or filled with fluid which may or may not be under pressure. The thickness of the wall varies in different cases, in different segmental sections, and different cystic cavities of the same case. It is not believed to have any genetic relation to the central canal, hydromyelia having a uniform lining of ependymal cells. It must be differentiated from cavities due to hemorrhages—hematomyelia.

The effect of x-ray on young proliferating cells and on the vascular supply of tumors is well-known. The exact action in syringomyelia has not yet been explained. The glial cells are a young and almost undifferentiated form of embryonal tissue. Since these cells are overproductive in syringomyelia, they might be expected to be sensitive to the destructive effects of the roentgen ray. The other effect of radiation on this disease may be through its sclerosing action on blood vessels, thereby decreasing the vascular supply in the affected tissues. By these effects, radiation arrests the progress of the disease, and thereby decreases pressure on adjacent neurons and relieves irritation or destructive effects on them. Irradiation of cystic cavities may at first aggravate the symptoms, but on continuing the treatment, relief of symptoms appear. Clinical improvement appears first in the areas last involved because the neurons of these areas have been least affected. Where tissues have been destroyed, they are not regenerated.

Why pain fibers are restored more readily than temperature sensation cannot be explained, but it is a fact that while other cutaneous sensibility is re-established, temperature sensation is sometimes slowly or not completely restored.

Case Report

H V, colored, female, age thirty-nine, was admitted November 4, 1935

Dr Radding is instructor in Radiology, NYU Medical College.

Her chief complaints included weakness, difficulty in walking, and pain in back. Patient has become progressively weaker in the past six months. Her grip has become progressively weaker in the past six months. Her grip has become so bad that objects fall out of her hands. Four months ago, began to experience difficulty in walking. She attributed this to her weakened condition. Her difficulty in locomotion has become rapidly worse so that now she is forced to spend most of her time in bed. Her legs are stiff when she attempts to walk and she has trouble in keeping her equilibrium. Patient has complained of pain in the small of her back for the past two years. Pain at times is shooting or boring in character and is ameliorated by exercise. Her teeth had been previously extracted in an attempt to remove focal infection and thereby to relieve her back pain. Dyspnea and palpitation on exertion. No ankle edema. Dysuria in last four months.

Her past history was irrelevant. Had eight children. No miscarriages.

Physical examination revealed a well-nourished, colored female, weighing 134 lbs. Heart and lungs negative, pupils round, equal, react to light and accommodation, no nystagmus, extraocular movements, no facial weakness, tongue in midline, no rigidity of neck, abdominal reflexes absent, paresis of both hands, atrophy of interossei muscles, temperature and pain sensation increased in fingers, hands and forearms, more so on the left side, pectoral, triceps, biceps, ulnar, and radial periosteal reflexes bilaterally hyperactive and Hoffman sign positive, all reflexes of lower extremities are exaggerated, Babinski positive, Romberg negative, muscle, tendon and joint sense intact, more sensitive to pain on the right side, temperature sensation markedly diminished in the entire left calf, vibration decreased, indefinite area of hyperesthesia in supraspinatus areas beginning at level of second thoracic spine.

Laboratory

Hgb seventy-four per cent, erythrocytes 4,270,000, leukocytes 4,750, polys seventy-three per cent, lymphocytes, thirty-two per cent, monocytes four per cent, eosinophiles one per cent.

Urine albumin 2+, granular casts. Blood Wassermann 1+, repeated twice, negative.

Spinal fluid crystal clear, pressure twelve cm water, with jugular compression rises rapidly to sixteen cm, five cells per cmm, globulin increased, Wassermann negative,

colloidal gold curve negative, sugar 0.43 mgm.

X-ray of cervical, dorsal, and lumbar vertebrae negative.

Treatment

Patient received thirteen applications of 150 r each within a period of sixteen days. They were given to alternate sides of the posterior cervicodorsal spine, the beam being angulated toward the midline. Each portal was eight X thirty cm. The other factors were 200 KV, filter 0.5 mm Cu and 10 mm Al, FSD fifty cm.

Improvement began to appear after the first week of treatment. On May 6, 1936, patient was able to walk about without much difficulty although gait was still somewhat spastic. All reflexes were less hyperactive. Babinski reflex was now absent. Superficial abdominal reflex present. Paresis of hands had disappeared and patient was able to take care of her household duties. Sensation of pain had returned, temperature not completely, especially in fingers and left calf. On July 26, patient was again seen. She was able to walk more than a mile a day and stated that she had never felt better.

Fried, in the report of his case, gave a therapy of moderate intensity and at intervals of one week. O'Brien used relatively low intensity in his earlier cases, but in his later cases gave greater intensity and on successive days. Our case received approximately similar intensity and daily applications, but also to a larger total dose. It would appear to be safe to give the larger doses and greater intensity, and possibly obtain more prompt effect. A large series of cases would be required to establish whether this is a fact. The skin of this patient was found not to be hypersensitive to radiation. The history of the development of this method of treatment and a very comprehensive bibliography is to be found in O'Brien's paper in *Radiology*.

Acknowledgment

We wish to thank Dr Clarence C Hare who made the neurological examination and established the diagnosis. We also extend our thanks to Drs Herbert A Cochrane and Joseph H Diamond for permission to report this case.

PROGRESSIVE MUSCULAR DYSTROPHY

A Biochemical Endocrine Study

LOUIS BERMAN, MD, *New York City*
The Neurological Hospital

The pathological physiology and biochemistry of progressive muscular dystrophy still remain to be clearly elucidated. The following studies of certain of the biochemical characteristics of the disease, and the response to endocrine therapy intended to effect these biochemical abnormalities are offered as a more hopeful line of investigation and progress than any that has so far been at hand.

Pathologically not much can be gleaned as to the nature or causation of the disease process. There is an evident degeneration of the striated muscle fibers, and replacement by fat and connective interstitial tissue. The loss of substance and structure with replacement by fat and collagenous tissues are present to a degree proportional to the duration of the disease. Hypertrophied and atrophied fibers occur in the same section of the muscle, and the characteristic signs of degeneration, distortion, and splitting of the fibers, fraying or vacuolation and loss of distinctness of the striae—all point to a disturbance of the nutrition and chemistry of the muscle cells as the underlying process of the disease. Consequently attention was turned to the study of the metabolism and the regulators of metabolism, the endocrine glands, in these patients.

It was at first thought that the seat of the disease was primarily in the nervous system, but the study of the nervous system has failed to reveal changes comparable in extent or gravity with those in the muscles.

In the studies conducted by the writer, the following metabolic changes have been discovered to be constant characters of the disease.

1 A hypoglycemia more marked than that which occurs in any other form of myoneural pathology.

2 A disturbance of the blood sugar tolerance.

3 A hypocholesteremia.

4 A creatinuria, with a disturbance of creatine tolerance.

1 The hypoglycemia associated with the condition adds to the muscular weakness, if not being actually a primary case of it. Actively contracting muscle consumes blood glucose to the possible extent of six times as much as the resting muscle. Long ago Weiland¹ showed that in human beings severe muscular exertion would reduce the general blood glucose from 0.09 to 0.065 gms per 100 c.c. As the blood sugar diminishes, the muscular power of contraction decreases, but may be restored by the injection of sugar. The diminution of blood sugar and the enfeeblement resulting may be demonstrated definitely in the case of the perfused heart. The ability of the heart to contract decreases as the sugar of the perfusing solution is diminished. So introduction of glucose may start such a heart muscle preparation beating after it has stopped contracting. Normally the concentration of blood sugar is stubbornly maintained even through a prolonged period of starvation, the glucose being replenished from the glycogen stores of the tissues. The liver, of course, is the great locus of glycogen storage and the center of the glycogenesis-glycogenolysis mechanism. The blood sugar content and reactions can be affected by changes in the liver, the pancreas, the adrenals, the thyroid, and the parathyroid and the pituitary. In fact there is no better example of how the endocrine glands act as an interlocking directorate over the various metabolic processes than in this of the regulation of the sugar content of the blood and tissues. If the liver becomes badly damaged, its ability to synthesize and store glycogen may be impaired, and hypoglycemia results. Blood sugar may be decreased when the adrenals are removed, and increased by the injection of cortin or adrenalin or both.

After hypophysectomy, hypoglycemia results which may be corrected by the administration of the blood sugar raising principle of the anterior pituitary.

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July 1, 1937]

of interlocking chemical reactions by which the energy for the contraction of the muscle is liberated and the recovery from fatigue is facilitated. To these four might be added cholesterol, although its precise function in the chain of reactions is not known, for Berman has reported that certain cases of extreme muscular fatigability and wasting may be relieved by the innunction of irradiated lanolin, and he has called the condition *asthenia cholesteropriva*. These cases show a markedly lowered blood cholesterol without a hypoglycemia comparable to that occurring in progressive muscular dystrophy.

The adrenal glands, and more particularly the cortex, may be related to these disturbances of muscle chemistry in progressive muscular dystrophy. As mentioned, one of the characteristic accompaniments of adrenal insufficiency, experimental and clinical, is the lowered blood sugar. Recently it has been shown that the carbohydrate chemistry of muscle is disturbed after adrenalectomy. Moreover, the hypoglycemia of Addison's disease is accompanied by a hypocholesteremia. Though a primary function of the cortex seems to be a regulation of the sodium potassium balance in the blood and tissues, it does seem to have a definite relation to the carbohydrate metabolism of muscle dystrophy.

The relation of the phosphocreatine phase of the problem to the creatinuria has aroused the greatest interest. On the basis of the relation of creatine to the simplest of the amino-acids, glycine, which is amino-acetic acid, a relationship to creatine metabolism has been postulated. Very few studies have been made of the relation of the known hormones to the muscle phosphocreatine. Imrie² and his collaborators have studied the relation of the parathyroid glands to phosphocreatine and came to the conclusion that in parathyroidectomized cats, the concentration of creatine phosphate in the muscles is lower than in the normals. The administration of parathyroid extract to such animals results in a restoration of the phosphocreatine content and at a rate similar to that of the normal.

An attempt to influence the carbohydrate metabolism of the muscle in the

progressive muscular dystrophy was first made by Kure and Okimaka.⁴ They used adrenalin combined with pilocarpine upon the theory that the disease is due to disturbance of the autonomic nerve supply of the muscle. They reported favorable results in certain cases. Hough⁵ repeated their work and asserted that in four out of sixteen cases thus tested, there was marked improvement. However, no definitely objective criteria was employed to check the reports of subjective improvement in these cases.

A number of clinicians have considered the endocrine possibilities of etiology and therapeutic attack upon the problem of progressive muscular dystrophy. Endocrine stigmata have been frequently observed such as dryness and pigmentation of the skin, brittleness of the hair and nails, hypertrichosis or deficiency of hair development, disproportion of the skeletal relations, and so on. That muscular dystrophies have been observed in association with dwarfism, exophthalmic goiter, cryptorchidism, eunuchoidism as well as acromegaly, has also been considered additional evidence. However, it is also evident that it is not a monoglandular disease, but rather would have to be classified as a disease of disturbed endocrine function of at least two or more glands. Certain cases have been reported in patients with hyperthyroidism (Boveri, Von Werdt⁶). Richardson and Shorr⁷ have reported that there is decreased creatine tolerance in hyperthyroidism associated with creatinuria, which may be corrected with Lugol's solution. But the creatinuria, and decreased creatine tolerance of progressive muscular dystrophy are not affected by Lugol's solution. Involvement of the pituitary has been considered in certain cases presenting the bony changes of acromegaly. And other cases have been reported to show early calcification of the pineal and it has been claimed that the feeling of pineal produces improvement.

In 1925, I was studying the relation of the parathyroid glands to intermediary metabolism and I was struck with the prompt appearance of creatinuria in parathyroidectomized animals and its equally prompt alleviation by the administration of active parathyroid extract. At about this time, two children of the

Post-pituitary extract will produce hyperglycemia. Even the parathyroid glands are implicated in sugar metabolism, for after parathyroidectomy, the injection of adrenalin no longer causes enough of a hyperglycemia to produce glycosuria. And of course the pancreas through insulin exercises a fundamental regulating influence on the level of the blood sugar. The lowest degrees of hypoglycemia, however, are produced by adrenalectomy experimentally, and occur in Addison's disease, clinically. In Addison's disease, there is a fair degree of correlation between the degree of muscular asthenia and the hypoglycemia and in cases responding to treatment a definite parallelism has been found between the increase in blood sugar and the decrease of asthenia. That is what directed my attention to a study of the clinical and therapeutic possibilities in the employment of adrenocortical extract (cortin) in progressive muscular dystrophy, for in this disease there is a hypoglycemia of twenty to thirty-five per cent below the normal basic fasting blood sugar levels, and there is, moreover, a parallelism between the degree of muscular weakness and the amount of lowering of the blood sugar. This was first reported by McCrudden and Sargent² in 1916. They showed, too, that this hypoglycemia is not due to the wasting of the muscles nor to a lowered need of glucose by the atrophied muscles, for they found no such hypoglycemia in individuals with progressive chronic arthritis in whom rapid and marked atrophy of the muscles is striking. Nor did they find it in progressive muscular atrophy, nor in various other causes of secondary muscular wasting.

2 A change in blood sugar tolerance occurs in progressive muscular dystrophy, which is an increase in tolerance. After the administration of the glucose, the initial rise is abnormally large in relation to the fasting figure and there is a delay in the removal of the sugar from the blood (four to five hours instead of two for return to initial figure), and in a number of the cases the sugar spills over into the urine and transient glycosuria appears. This was first reported by Janney, Goodhart, and Isaacson in 1918.

3 Hypocholesteremia has been found to be the rule in progressive muscular dystrophy, accompanying the hypoglycemia. In general there is no necessary parallelism between the sugar and cholesterol content of the blood. There is one clinical condition in which there is a definite parallelism between the blood sugar and blood cholesterol and muscle activity and that is again Addison's disease, in which the hypoglycemia, hypocholesteremia and muscular asthenia run together, become worse together and improve together under the influence of adrenocortical extract or cortin.

4 Creatinuria is a definite accompaniment of true instances of progressive muscular dystrophy, large quantities of creatine being constantly found in the urine. Such creatinuria is entirely abnormal for adults, although normal for children and, during menstruation, in women. A relation between creatinuria and an abnormality of creatine metabolism was early noted. Creatinuria has been found by numerous observers in many diseases affecting the muscular system. There is also a relation between creatinuria and the amount of protein ingested. But with the protein kept fairly constant, creatinuria will appear where there is injury of some sort to the carbohydrate metabolic mechanism. Hydrazine and phloridzin poisoning, resulting in hypoglycemia, will, in dogs and rabbits, be followed by creatinuria. There is also a tendency to a reduction of the urinary creatine.

A disturbance of the urinary creatine creatinine ratio may be found in all conditions involving muscular wasting or dysfunction, being an indicator simply of the muscular efficiency of the individual as Shaffer first pointed out. The true creatinurias are accompanied by the decrease of creatine tolerance. While the normal individual has a definite capacity to store ingested creatine, the dystrophic will promptly and largely excrete ingested creatine and this may be made the basis of a definite creatine tolerance test.

These chemical disturbances in progressive muscular dystrophy must be related to the known facts concerning muscle chemistry. It is known that four sets of substances are involved in a series

test in the normal will show about the same ratio. In the pathological the creatine tolerance is disturbed in that the ratio falls even lower with the administration of creatine. The following tables show how in three cases there was a marked rise in the ratio, on a regular meatless diet and when creatine was additionally administered in the tolerance test. This demonstrates that accompanying the clinical improvement there was a marked change for the better in the chemical metabolism of the muscle cells, probably due to better phosphocreatine synthesis (parathyroid) and coordination with the sugar processes of muscle contraction (adrenal cortex).

Thus at the end of about four to six months of treatment the ability to retain creatine was improved by about fifty per cent. Accompanying this increased creatine tolerance, was a definite clinical change for the better, of which the patients themselves were quite conscious, and much greater than that obtained under other forms of treatment.

Summary

Upon the theory that the hormones

Table—CREATINE—CREATININE RATIO

During these creatine tests, patients are put on a meatless diet

CASE I BEFORE TREATMENT			
Creatine	233	Creatinine	700
"	225	"	650
"	505	"	920
	963		2270
Ratio 2.2			
2 gms creatine given each day for three days in A M			
Creatine	101	Creatinine	852
"	400	"	850
"	630	"	720
	1131		2422
Ratio 2.2			
AFTER TREATMENT			
Creatine	200	Creatinine	1080
"	171	"	1029
"	124	"	1140
	495		3249
Ratio 7.5			
2 gms creatine given each day for three days in A M			
Creatine	143	Creatinine	857
"	77	"	1163
"	285	"	1140
	505		3160
Ratio 6.2			

most definitely involved in the disturbances of sugar and phosphocreatine metabolism in progressive muscular dystrophy were those of the parathyroid and adrenal cortex, these were administered to twenty-two patients in various stages and ages of the disease. Accompanying marked clinical improvement in fifteen out of twenty-two, there was a rise in the blood sugar, and blood cholesterol, and a normalization of the blood sugar tolerance curve together with a reduction in creatinuria and an increased creatine tolerance signifying an increased ability

CASE II BEFORE TREATMENT			
Creatine	202	Creatinine	425
"	200	"	430
"	282	"	942
	684		1797
Ratio 2.7			
2 gms creatine given each day for three days in A M			
Creatine	260	Creatinine	800
"	475	"	600
"	490	"	578
	1225		1978
Ratio 1.6			
AFTER TREATMENT			
Creatine	94	Creatinine	600
"	82	"	818
"	70	"	630
	246		2048
Ratio 8.7			
2 gms creatine given each day for three days in A M			
Creatine	208	Creatinine	900
"	327	"	1200
"	240	"	720
	775		2820
Ratio 3.6			
CASE III BEFORE TREATMENT			
Creatine	62	Creatinine	458
"	70	"	500
"	166	"	511
	298		1469
Ratio 4.9			
2 gms creatine given each day for three days in A M			
Creatine	711	Creatinine	162
"	950	"	136
"	283	"	831
	1944		1129
Ratio 5			
AFTER TREATMENT			
Creatine	65	Creatinine	725
"	132	"	750
"	67	"	993
	264		2468
Ratio 9			
2 gms creatine given each day for three days in A M			
Creatine	219	Creatinine	981
"	218	"	282
"	212	"	1638
	649		2901
Ratio 4.4			

same family suffering from progressive muscular dystrophy came under my supervision, and among other things parathyroid extract was given hypodermically. Some diminution of the creatinuria was observed and some improvement of the general condition. However, there was no effect upon the blood sugar or the sugar tolerance curve or the fatigability or the size of the muscles. In 1927, I began using an adrenocortical extract with the hope of influencing the blood sugar and thus perhaps the utilization of the sugar by the muscle. After a period of treatment there was a definite rise in the blood sugar, and some effect, by no means as marked as the effect of parathyroid extract upon the creatinuria. It was decided to employ the combined effect of both parathyroid extract and adreno-cortical extract. I have thus treated twenty-two individuals—six children, ten adult males, and six adult females. Hypodermic injections of the standardized extracts were given regularly three times a week over a prolonged period of time. Of the twenty-two, ten were relatively in the beginning of their disease, with symptoms of two years or less duration. This group responded extremely favorable to the combined therapy. In a second group of five, with duration of two to five years, there was a markedly beneficial effect in two, with apparent arrest of the disease, and in the third group of seven, with history of more than five years duration, there was fluctuating improvement in some, with unmistakable gain in strength and decrease of fatigability. In two of these in whom the disease had hitherto been progressive, an arrest of the further progress of it seemed to have been produced.

Associated with the subjective and clinical improvement and apparent arrest of the disease with apparent restoration of such function, in fifteen out of the twenty-two here reported were marked and definite changes in the biochemical and metabolic manifestations of the disease. There was a rise in the blood sugar of about 25 to 40 per cent, the blood sugar tolerance curves changed to a more normal type of curve and there was also a definite rise in the cholesterol content of the blood in those in whom

it was lowered. In addition, there was a marked reduction in the creatinuria, with a reversal of the creatine-creatinine ratio. Creatine tolerance tests carried out in the last four years have also shown a decided increase in the ability to hold ingested creatine and to transform it into creatinine.

These objective metabolic-biochemical changes accompanying the clinical improvement in the early and relatively not so far advanced types of progressive muscular dystrophy taken together with clinical improvement exhibited in muscular ability to perform coordinated habit movements, increase in strength and size of muscles, and increase in resistance to fatigue and ability to recover from fatigue would seem to indicate a real influence of the combined parathyroid-adreno-cortical extract treatment upon the cause and the course of the disease. Neither parathyroid alone, nor adrenal-cortical extract alone produce as good effects as those obtained when both are administered together. Isolated case reports have appeared in the literature regarding the effect of adrenal-cortical extract alone or parathyroid alone, but there have been no studies of the effect of either alone or combined upon the metabolic and biochemical phenomena. The striking changes observed with the combined extracts warrants further use of them and continued exploration of their therapeutic possibilities. Where there is marked atrophy and loss of muscle substance relatively little can be expected. But in the earlier and more florid stages of the diseases much may be accomplished by this therapy.

The effects upon the creatine tolerance in these treated cases is quite striking. The results in three may be cited as illustrative of the general trend in those individuals who have improved under the treatment. The normal creatine-creatinine ratio in a twenty-four specimen of urine is ten. That is, the amount of creatinine excreted in that time is about ten times that of creatine. In disturbance of muscle chemistry associated with abnormality in the phosphocreatine metabolism, there is a fall in the ratio because an increased amount of creatine is lost through the kidneys. A creatine tolerance

ESOPHAGEAL OBSTRUCTION

Seventy-eight Hospital Cases

EINAR A. SUNDE, M D, F A C S, *Brooklyn*

The following cases are reported as being of interest to the profession because they show the incidence and variety of esophageal disease as it occurs in an average general hospital rather than as it occurs in special endoscopic clinics.

The average yearly admissions at the Methodist Episcopal Hospital, exclusive of the obstetric admissions, are about six thousand. The period covered is from 1921 to 1936. Several cases of pharyngeal carcinoma producing dysphagia have been omitted as not being strictly esophageal cases. Only cases seen by the endoscopic service are considered, and as there are undoubtedly other cases the actual figure may be higher. Considering this series alone, the incidence is one case to 1154 admissions.

Jackson lists twenty-nine conditions involving the esophagus which cause dysphagia, some of which are simple to recognize, while others may require the cooperation of internist, neurologist, radiologist, and endoscopist to reach a diagnosis.

This series of seventy-eight cases of dysphagia due to esophageal disease falls into eight groups, in order of frequency as follows:

Carcinoma	34
Foreign body	29
Cardiospasm	6
Diverticulum	3
Congenital stenosis	2
Acquired stenosis	2
Peptic ulcer of the cardia	1
Acute esophagitis	1

Due to its anatomic position, the esophagus cannot be examined by ordinary means, except possibly in the cervical portion, where palpation may be employed. Previous to the use of x-ray and the esophagoscope, examination was confined to the use of the bougie passed

blindly, a procedure abandoned today as dangerous to life. At present, x-ray examination with contrast media, and esophagoscopy offer a ready means of diagnosis, and every patient complaining of dysphagia should have the benefit of both procedures.

Esophagoscopy carries with it a certain risk unless skillfully done. In this series, 213 esophagoscopies were done with no fatalities due to the examination itself.

The only contraindication to esophagoscopy is the presence of an aortic aneurysm.

Foreign body. The twenty-nine foreign body cases in this series may be discussed briefly. The chief point to remember is that a negative x-ray means nothing. Very few of our cases were diagnosed by x-ray. In fact, with a definite history of swallowing a foreign body, and with the patient in obvious discomfort, x-ray may be dispensed with and immediate esophagoscopy done. Ideally, of course, an x-ray should be obtained in every case. Sudden dysphagia, with pain or discomfort, usually occurring during a meal, is enough to warrant a suspicion of foreign body. When in doubt, esophagoscopy should be done.

Of these twenty-nine cases, the foreign body was found and removed in twenty. In three cases, after temporary lodgement, the invader passed into the stomach spontaneously. In five, nothing was found. One case, a partial denture lodged in the esophageal wall, was sent to the Jackson clinic where it was removed by using a special cutter to break up the denture.

Cardiospasm. We have had six cases of so-called cardiospasm (a misnomer, for the reason that there is no demonstrable muscular sphincter at the cardiac orifice).

Read before the Quarterly Staff Conference of the Methodist Episcopal Hospital, November 18, 1936

of the muscles to handle creatine and apparently as a result of the treatment. These observations, correlated with recent findings concerning the relation of the parathyroids to phosphocreatine metabolism and of the adrenal cortex to sugar metabolism in muscle, would seem to in-

dicate that progressive muscular dystrophy represents a muscular dysplasia occurring upon a basis of an endocrine dyscrasia centering around a deficiency or imbalance of the parathyroid and adrenal glands

1050 PARK AVENUE

References

- 1 Weiland *Deutsches Arch f klin Med Leipzig*, 1908, *Zentralbl f d ges Physiol u Path d Storg wech*, Berlin 1910
- 2 McCrudden and Sargent *Arch Int Med*, 17 465, 1916
- 3 Imrie *J of Physiology*, 79 218, 1933

- 4 Kure *Klinische wochenschrift*, 9 1168, 1930
- 5 Hough *J A M A*, 101 2113, 1933
- 6 Boyer and Werdt, von *Frankfort Ztschr f Path Wissbaden*, 7 401, 1911, and 2 577, 1908.
- 7 Richardson and Shorr *Journal Clin. Invest.*, 12 966, 1933

Collateral Reading

Beard, Howard H and Tripoli Carlo J. The effect of Feeding Amino Acids in cases of Muscular Dystrophy, *New Orleans Med and Surg J*, 86 205, 1933

Berman, Louis. Asthenia Cholestropriva, *Med Journ & Record*, 137 133, 1933

Candler, B M. Progressive Pseudohypertrophic Muscular Dystrophy a New treatment and Report of a Case, *International J of Med and Surg*, 46 175, 1934

Frankel, F. On the Relations of Progressive Muscular Dystrophy to the Diseases of the Endocrine Glands, *Zeitschr f d ges Neurol u Psychiat*, 78 290, 1922

Freiesz, J. Contribution to our Anatomical Knowledge of Muscular Dystrophy, *Deutsche Zeitschrift fur Nervenheilkunde*, 112 318, 1930

Goralewski, Godehard and Engel, Elsbet. The treatment of Progressive Muscular Dystrophy with Adrenalin and Pilocarpine, *Deutsche Medizinische Wochenschrift*, 58 1169, 1932

Kostakow, S and Slauck. The Glycocoll Treatment of Progressive Muscular Dystrophy, *Deutsche Med Wchenschr*, 59 159, 1933

Milhorat, Ade T. Treatment of Progressive Muscular Dystrophy and Similar Muscular Diseases with Glycocoll, *Deutsches Arch f Klin, Med*, 174 487, 1932

Mettal, Howard B and Slocum, N K. Pseudo-

hypertrophic Muscular Dystrophy Preliminary Report on Treatment of 3 cases with Glycine, *J of Pediatrics* 3 352, 1933

Nevin, S. A Study of the Muscle Chemistry in Myasthenia Gravis, Pseudohypertrophic Muscular Dystrophy and Myotonia, *Brain*, 57 239, 1934

Reingold, J G Clark, J H Kingley, G R Custer and McConnell. The effects of Glycine (Glycocoll) in Muscular Dystrophy, with Especial Reference to Changes in Structure and Composition of Voluntary Muscle, *J A M A*, 102 261, 1934

Riggs, C Eugene. The Endocrine Type of Muscular Dystrophy, *Minn Medicine*, 9 98, 1926

Steherbak, A. The Pathogenesis and Therapy of Progressive Muscular Dystrophy, *Monatsschr f Psychiat u Neurol*, 70 279, 1928

Thomas, T H. The treatment of Progressive Muscular Atrophy by Parathyroid Calcium and Vitamin D, *Brit Med J*, 3 518 978, 1928

Tripoli, Carlo J, McCord, Wm M Beard, Howard H. Muscular Dystrophy, Muscular Atrophy, Myasthenia Gravis and Strabismus, *J A M A* 103 1595, 1934

1934 Muscular Dystrophy and Atrophy, *Archives of Internal Med* 53 435, 1935

Voshell, Allen F. Progressive Pseudohypertrophic Muscular Dystrophy, *Southern Med J*, 26 156, 1933

Westphall A. Contribution to the Question Progressive Muscular Dystrophy, and Extrapyramidal Syndrome, *Klinische Wochenschrift*, 6 198, 1929

WITHOUT GLOVES

The outspoken, vigorous English of our Illinois contemporary never leaves any doubt about where the editor stands. While other medical editors around the land are opposing state medicine firmly, perhaps, but more restrainedly, the *Illinois Medical Journal* speaks its mind thus:

The panel doctor finds himself a physician on the ten cent store idea. Austria, England, France and Germany reverberate to the same wail. Nickle and dime stores may flaunt their wares on the boulevards. Will American citizens have such service in their clinics, their hospitals, or their family sick-rooms?

Justice Oliver Wendell Holmes said "It has long been recognized that legislation is just as likely to follow public emotion as to be guided by scientific knowledge." Oliver was right! But in the case of the

Social Security Act legislation would seem to have followed the public destroyer, and the communist at the gate. If the Puritan ancestors of the late Justice were on the job today it is likely that scientific knowledge of the fowling-piece and powder horn would clean out a few of the warrens of Washington where bureaucracy breeds, communism concentrates, and the Constitution is regarded as lightly as last year's song-and-dance act in the vaudeville show of nations.

What has become of the Declaration of Independence? Where is the Constitution of the United States about to land? According to the present legislative tendency socialistic powers and bureaucratic ideas this sacred document will soon rest in the national garbage barrel.

x-ray series proved to be negative. Esophagoscopy showed the presence of a peptic ulcer of the cardia with moderate infiltration. No malignancy was present. She improved under medical treatment.

Diverticulum of the esophagus, or more properly, of the hypopharynx, occurred in three cases.

The first was a male aged fifty-four who had dysphagia twelve years. Regurgitation occurred, with an eight hour retention. A tumor was felt in the neck, enlarging after eating and diminishing in size in a few hours. X-ray diagnosis of diverticulum was confirmed by endoscopy. A Lahey two-stage operation was done with a successful result. After five years there has been no return of the diverticulum.

The second case, a male aged sixty, had a cough for one and a half years, dysphagia five years. X-ray and esophagoscopy showed a diverticulum. This patient was referred to Lahey at Boston, who operated on him with a successful result.

The third case, a male aged fifty-two had regurgitation one year. X-ray showed a diverticulum the size of a hen's egg. Esophagoscopy confirmed the diagnosis and Lahey operation was done. The patient died following the first stage, from mediastinitis due to accidental perforation of the neck at the sac at operation.

Carcinoma of the esophagus—our largest group—occurred in thirty-four cases. Jackson states that seventy per cent of esophageal stenosis in adults is due to malignancy. The average patient ignores symptoms until after solid food regurgitates, which may occur comparatively early. The duration of symptoms in this series is as follows:

Three cases	one year
One	ten months
Two	six months
Four	five months
Three	four months
Four	three months
Five	two months
Six	one month
Six	not stated in history

Thus it may be seen here that eighteen of thirty-four cases sought relief four months or less after the onset of dysphagia. Unfortunately by the time symptoms occur and the patient seeks relief, the malignancy is well-established and treatment can only be palliative.

The history, familiar to all of us, is one of painless dysphagia, followed by regurgitation. Usually no blood is seen in the regurgitated material. Loss of weight is marked and very rapid.

X-ray findings include (1) Obstruction to contrast media at any level. (2) Irregular lumen. (3) Slight or no dilatation above point of obstruction. The walls are more or less fixed.

Endoscopic findings The lumen is obstructed by either an indurated annular stenosis, an ulcer, or a fungating growth which bleeds easily on touch. The diagnosis is made on biopsy. Lues and tuberculosis must be excluded.

Location of growth Upper third of esophagus—thirteen cases, middle third—ten, lower third—ten of which five were at the cardia, one case refused examination and the growth was not located definitely.

Sex Male twenty-six, female eight.

Age Average sixty, youngest thirty-nine, oldest eighty.

Gastrostomy was done in eleven cases, five of whom died in the hospital, and six left improved as to their general condition.

Ten of the thirty-four died in the hospital, five of inanition, two of terminal pneumonia, and one each of hemorrhage, spontaneous perforation (mediastinitis), and cardiac failure.

Twenty-one cases left the hospital unimproved, the majority of whom were referred elsewhere for radiation therapy.

Three cases were discharged improved, two of whom received radon seed implants with slight temporary improvement. The other case, the most recent of our series, is the only one that has occurred since the installation of a new radiation therapy unit, and this case gives us hope of at least better palliative results than we have previously obtained.

This case was a male, age fifty-eight, who had dysphagia for two months. X-ray and esophagoscopy diagnosis was carcinoma of the cardia. Biopsy showed a grade two adenocarcinoma. X-ray therapy was begun, had to be interrupted by a gastrostomy and was resumed again. He received a total of 4000 r units over two ports. Esophagoscopy, two days after finishing this course of treatment, showed a

Jackson prefers to call it "diaphragmatic pinchcock stenosis." The abnormal closure of the esophagus occurs at the diaphragmatic level, an inch or more above the true cardia, and is caused by muscle bands springing from the crura of the diaphragm surrounding the esophagus at the under surface of the hiatus.

There is also a normal twisting or kinking of the terminal portion of the esophagus which aids in the closure. Mosher has demonstrated this on cadaver specimens and has shown that the left lobe of the liver impinges on the esophagus and may produce blockage by pinching the esophageal wall against the left crus of the diaphragm.

Normally also, the left lung tip presses on the esophagus and pinches it off during inspiration. This may be seen under the fluoroscope.

The etiology of cardiospasm is still obscure and is probably linked in some way with the nerve supply to the esophagus and the diaphragm.

These cases complain chiefly of regurgitation and may often mistake it for vomiting, particularly if a large dilatation is present. The fluoroscopic picture is typical. The contrast media descends to the level of the diaphragm without difficulty, but is stopped at that point. The esophagus is dilated above this point to a greater or less degree, the walls are smooth, and the contrast media presents a pyriform shape, tapering to a point at the diaphragm. Some of the barium may enter the stomach as efforts to swallow are continued. The greater amount is retained in the esophagus for a time and slowly trickles through into the stomach. If the closure is tight, the contents are retained part of the day and is then regurgitated later (twenty hours in one of our cases).

On examination, the esophagus is found dilated, and the walls smooth. A chronic esophagitis is present, the result of food stagnation. At the bottom, one finds the opening more or less tightly closed. Bougies are passed carefully and this procedure is repeated weekly until the lumen allows the passage of the tube itself. Permanent relief is usually obtained. Some cases recur, when the process must be repeated.

Of six cases, four were female. The

average age was thirty-eight. Five cases left the hospital improved after one or more dilatations. One case had a gastrostomy done and a finger dilatation from below through the stomach. The patient was discharged improved.

Congenital stenosis may be one of many varieties. If any lumen at all is left, bouginage is invariably successful.

Of two cases, one was a fourteen month old infant with a web just below the cricopharyngeus muscle. The web was divided with subsequent improvement. She returned at the age of two years with further obstruction. Dilatation was done with improvement.

The second case was that of a four year old boy with a history of dysphagia since infancy. A stenosis was found in the middle third of the esophagus. He has had about thirty dilatations. He is now ten years old and swallows normally. At first this was thought to be a lye stricture, but no history of a lye burn could be obtained, there were no scars in the esophagus, and he was finally classed as a congenital case.

Acquired cicatricial stenosis two cases, both in the middle third, were treated successfully with dilatation.

Acute esophagitis, usually caused by trauma or a lye burn, occurred in one case following appendicitis with general peritonitis.

A male, aged thirty-eight, began to have difficulty in swallowing two weeks after his discharge from the hospital following an appendectomy with drainage. He lost fifteen pounds. On admission he had some cough and considerable soreness on swallowing. During his first week in the hospital he ran a low grade temperature. X-ray showed a complete obstruction in the middle third of the esophagus. Esophagoscopy discovered an acute esophagitis with a marked narrowing of the lumen. Exudate on the wall of the esophagus showed pus cells, with pneumococci and streptococci predominating organisms. Improvement occurred with rest and dilatation. Complete recovery took four months.

Peptic ulcer of the cardia (one case only) occurred in a female, aged sixty-two, who was admitted exsanguinated from an occult hemorrhage. It was thought she had a gastric ulcer or malignancy. After transfusion and improvement in her condition, a gastrointestinal

not only because the child was a female, which is usually an important factor, but also because he was busy in his downtown office and was less at home than his wife. On such occasions it is ordinarily the mothers who bear the brunt of the burden. They feed and bathe, dress and put to bed the children, clean the teeth, nose and ears and wash the hair. They are the ones to go out with them every day, to hurry and admonish them. The father's walk with the child, on Sundays, is a holiday full of serenity. This father was "a good father," he came home early evenings and took part in some of the ministrations connected with upbringing. *Inde irae*, as Juvenal would say. That is why he did not escape his child's enmity entirely.

The grandmother also came to my office and acted as informant. She had arrived from Germany only ten years before and scattered words from her own language into her English. She denounced the parents frankly. They had spoiled the child, *das Kind*, and now they reaped what they had sown. The girl was not born bad. But now she was terrible. "Just as you cannot stop the wind, so you cannot check this *Kind*," she unconsciously rhymed.

Patient was fifty-three inches tall and weighed only 50 lb., which amounted to fifteen or more lb. underweight. The physical examination was negative. She was dark complexioned like her father, but otherwise she did not resemble him. She was extremely vivid, while he, when not aroused, was slow and deliberate and, according to the old lady, his mother, had apparently been so in childhood.

The child's face, framed in by a shock of jet black hair, her piercing glances from the shining, always moving and searching eyes, were disconcerting and discouraging.

Forever teasing and defiant, she seemed unconquerable.

When I began to talk to her, she turned her back to me, went to a corner of the room and covered her eyes with her hands.

I said "Oh, I like to talk to people without seeing them. I have friends whom I have never seen."

She became immediately interested and, forgetting her evident resolution not to speak to me, she turned quickly around and asked "How can you do it?"

"We only correspond," I answered. "By mail, you know. I get the best there is in them and I am sure not to disappoint them."

"What do you mean?"

"I mean they cannot see my weak points in my letters, although truthful, I am like

somebody dressed up in his Sunday best clothes."

But after a while she put her tongue out in my direction and made a wry grimace.

"I too can make faces," I said, "but I am making them in a funnier way when I am alone, in public I am ashamed."

"Let's see," she urged.

And I twisted my features as grotesquely as I could, which made her laugh.

From then on we were friends and the astonished parents admitted that they had never seen her so affable and cordial, specially with a stranger.

When I mentioned her slimness and gave her reasons why it was necessary for her to gain weight, she became serious and was willing to be examined physically. But she said she wouldn't want to be like me and I conceded that I was a little too stout. I showed her, however, that I could run and jump better than her. Try as she may, she remained behind in every contest, which enhanced her respect for me. She turned to her parents and said "He is like Foxy Grandpa of the funny page."

We spoke about the pictures on my wall and I made up stories about their contents as we went from one to the other. She said she could also paint and she drew a landscape for me—not bad. We conversed about many things and she was never aware that I was testing her intelligence and gauging her mental possibilities in an unconventional manner. Mentally she was normal if not above.

The parents had been silent witnesses. Before going home they both expressed the hope that from then on Louise would behave. But I told them they were mistaken and asked them to call without the child.

I had to lecture them, to point out their errors in upbringing from the moment the child was born and to plan for the future.

When I saw the little girl again many of her difficulties were still present. Several talks on the one side with her and on the other side with her parents were necessary. Serious blunders made by them, old faults, oversights, like creases in worn garments, persisted and continued for a long time and hindered the improvement. Nor did the child's attitude to them change overnight. Her misbehavior recurred again and again but her periods of adjustment increased.

While I do not think that a child who has been sinned against so much up to the age of nine or ten and who has adopted a distorted point of view of her surrounding world can ever correct it entirely, her conduct became and remained quite tolerable.

complete disappearance of the growth which had previously filled the lumen with a fungating mass. At this time, 100 mgm of radium, screened with $1\frac{1}{2}$ mm of platinum was placed in the cardia and held there for eighteen hours (1800 mgm hours). Following this treatment, he began to improve and after a time could eat solid food. Four months after treatment he died suddenly of heat stroke after having eaten a full meal. The diagnosis of heat-stroke was made by his family doctor who was fully aware of his previous condition.

Treatment of these cases is well-illustrated by the above case report.

Bouginae for temporary increase of lumen is contraindicated owing to the risk of perforation and possibility of spreading the growth. Intubation may delay gastrectomy but will not obviate its eventual performance. Gastrectomy should be done earlier in cases showing solid food regurgitation, thus preventing starvation acidosis.

Surgery has not yet reached the point where it can successfully attack this condition and so our main reliance must at present be placed on radiation therapy.

627 SECOND ST

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, Dr P H, New York City

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polytechnic Medical School and Hospital. The descriptions are not complete clinical studies, but will occurrent situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Father and Daughter

Man, sixty "Nervous Breakdown" since his only daughter married and left the house, a year ago.

Daughter is happy.

Patient otherwise healthy. Strong, tall, well-built.

"Melancholy," unable to continue his occupation, which is that of a bookkeeper in a large concern. Coming with his family physician, who has vainly tried all sorts of methods.

Questioning gradually revealed that he suffered from a subconscious—perhaps conscious—exaggerated love for his daughter which is a concomitant of and a compensation for his eternal fights with his wife and

hatred for the latter. He managed to find employment for the girl in the office where he himself was working and where he kept her as long as he could, so he might be in her proximity. But her marriage, although he did his best toward its success, proved to be a shock to him when accomplished.

Several talks. Carefully explained the situation to him. Shown how necessary it was for him to overcome his sentiments toward his daughter and that the pretexts for his bad feelings to his wife were founded on futile and foolish details and imaginary wrongs.

Improvement. Returned to work and became cheerful.

The Problem Child

Louise, nine, was a *behavior problem*.

She was restless, unadjusted, rebellious. She disliked school, had a bad temper, could not get along with other children. She was cruel and hit anybody who came near her, often even her mother. Her parents, both professional persons and above the average in intelligence, had lost their influence with this their only child and, what was worse, were also losing their patience. They too had frequent uncontrolled outbursts of anger which the child imitated, a fact that put them into a worse rage. Then they blamed each other and quarreled among themselves. Sometimes the old grandma

who was living with them mixed in and the uproar grew and grew until there was pandemonium.

The child ate badly and her food preferences were capricious and very limited. Almost from infancy, that is from the moment she understood that the mother was very keen on having her eat, she was opposed to eating. As it always happens in these cases the child, in her fight against the maternal tendency to overfeeding, had learned very early her opponent's weak point and had taken advantage of it.

The child's hatred for the father was less pronounced than that for the mother,

difficult task. Medical care, scientific research, and professional education are all functions of the modern medical institution. To be discharged properly, they demand integration of the hospital with other social and philanthropic movements, sound business procedure on the part of executives, familiarity with medical aims and methods, and a sympathetic understanding of the problems and needs of the professions associated in health services.

While it is possible for an intelligent, experienced layman to discharge the manifold duties of hospital administrator with distinction, there is no doubt that a medical education provides the most appropriate background for this work. It is not, however, enough. On it must be superimposed a thorough understanding of the numerous extra-medical problems of institutional management. Executive talents must be consciously developed.

The Hospital for Joint Diseases in New York City is conducting an interesting experience in training for hospital administration. It has established a three-year residency in this field, during which the successful candidate acquires practical experience in every phase of institutional management. He studies and supervises admitting procedures, the organization of the house staff, emergency and ambulance service, the house-keeping, engineering and business divisions, community relations—in short, everything pertaining to the planning, construction, and operation of a modern medical institution.

With hospitals assuming an increasingly important role in medical service, the quality of hospital administration also grows in importance. This work should be considered a career in itself by those who enter upon it, not a stop-gap in the absence of other employment.

To this end, accredited training facilities are essential. If the experiment of the Hospital for Joint Diseases succeeds, it will point the way for the development

of a group of experienced hospital administrators within the profession.

Choosing the Medical Student

Between now and the commencement of the Fall term, the personnel of all medical colleges is confronted with the difficult problem of selecting a class of students who are fitted to the study of medicine. The task is no easy one, and the responsibility is not light, for upon these schools the American people are dependent for their supply of future medical care.

A far greater number would become physicians than either the physical capacity of our schools could train or that the community can utilize. Consequently a system of selection must of necessity be enforced lest we be overrun by a vast number of misfits. That no system of selection is perfect goes without question and in some instances, unintentional injustices do occur. It is a hard problem to determine beforehand which one will and which one will not make a doctor who, besides being a source of pride to his profession, will adequately and honestly serve the public. One has but to read the minutes of the thirty-third Annual Congress on Medical Education and Licensure to appreciate how much thought is being given to this phase of medical education. Scholastic standing, while important is by far the least important, being overshadowed by personal qualities such as honesty, faithfulness in the performance of work, and the total lack of demoralizing traits.

To those applicants who fail to make the grade we extend no sympathy because they later in life will thank the medical schools for having had the foresight of avoiding for *them* an unsuccessful and monotonous career—a career for which they were not suited. To those chosen we recommend a careful and reverent study of the highest traditions of medicine throughout the centuries that they

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EDITORIALS

The A M A Meeting

Physicians who have derived their impressions of the recent A M A meeting from headlines in the lay press are far from an actual picture of what transpired. Organized medicine has not accepted socialization, as so many newspapers appear to believe. On the contrary, it has strengthened the status of private medical practice by bringing it into conformity with the needs and realities of the times.

The proposals made represent no departure from the policies endorsed by the membership at the recent State Meeting. They are in no wise revolutionary, as some journalists like to describe them. The profession has long urged government to acknowledge its responsibility for the health of the indigent and medically indigent. It has repeatedly expressed its desire to cooperate with responsible agencies to the end that suitable health policies be devised and carried out without political interference or control.

The fact that the A M A has declared such views its official policy is no basis for assuming that it has endorsed socialized medicine—unless we consider that we are living in a socialist state because the government supplies the needy with food and shelter and other necessities of life. Physicians consider medical service

one of these necessities—and believe it can best be furnished through the private practitioner, even when governmental aid is necessary to pay the bill.

In taking this stand neither the A M A nor the State Society has abated its opposition to compulsory sickness insurance by one iota. The compelling objections to this system still hold good. That the government realizes their validity, is indicated by the President's request for cooperation "in such methods as you (i.e., the President and the A M A) would jointly find would be to the service of the helpless and the afflicted, within such province as you felt government should undertake."

The popular response to the A M A's declaration of policy and the President's immediate acceptance of its offer of aid imposes an inescapable obligation upon the profession. If the latter ignores this responsibility and settles down into a "do nothing" policy, it cannot complain if more energetic agencies seize the opportunity it ignores.

A Good Apprenticeship

Even in comparatively small hospitals today administration is a complex and

difficult task. Medical care, scientific research, and professional education are all functions of the modern medical institution. To be discharged properly, they demand integration of the hospital with other social and philanthropic movements, sound business procedure on the part of executives, familiarity with medical aims and methods, and a sympathetic understanding of the problems and needs of the professions associated in health services.

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To this end, accredited training facilities are essential. If the experiment of the Hospital for Joint Diseases succeeds, it will point the way for the development

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A far greater number would become physicians than either the physical capacity of our schools could train or that the community can utilize. Consequently a system of selection must of necessity be enforced lest we be overrun by a vast number of misfits. That no system of selection is perfect goes without question and in some instances, unintentional injustices do occur. It is a hard problem to determine beforehand which one will and which one will not make a doctor who, besides being a source of pride to his profession, will adequately and honestly serve the public. One has but to read the minutes of the thirty-third Annual Congress on Medical Education and Licensure to appreciate how much thought is being given to this phase of medical education. Scholastic standing, while important, is by far the least important, being overshadowed by personal qualities such as honesty, faithfulness in the performance of work and the total lack of demoralizing traits.

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may preserve them in the midst of this rapidly changing social order

The Menace of "Nose Drops"

Since 1925 the profession has become aware of the dangers inherent in the use of oily preparations in the nasal passages. Especially is this true for infants under two years of age. The oil, aspirated into the lungs, produces a low grade pneumonia which most often terminates fatally. Postmortem examination frequently reveals large quantities of oil in the lungs and the tissues show the reactions common to foreign body irritation. Death results from a superimposed infection.

This form of pneumonia, called lipid pneumonia, has been on the increase in recent years due to the extensive advertising of commercial "nose drops." A well-intentioned mother, whose child has a "running nose," repeatedly instills oily drops into the nose in the mistaken belief that they are curative. Medical men know that any medication to the nose in the form of drops is at best a palliative but they are powerless in their attempt to combat the advertising of large patent medicine concerns. The situation has produced a definite health problem. According to Dr. Paul Klemperer, "the condition is now being found with increasing frequency at autopsy. Occurs in adults as well as children. The condition constitutes a public health menace."

The profession feels that an intensified campaign should be instituted by the health authorities to acquaint the public with the truth regarding the use of oily nasal drops. It feels that this problem should be made a part of the Pneumonia Campaign now in progress.

CURRENT COMMENT

"INSTEAD OF THE GOVERNMENT taking charge of directing the doctor as to what is to be done in the matters where his science

is of first application, I want the government to place the doctor in a position where he can direct the government."—Senator Lewis, speaking to the House of Delegates of the A. M. A. on June 10, 1937

ON A QUESTION OF LONG-STANDING we quote two standpoints—an editorial in *The New York Times* of June 4, and an elucidating letter from Dr. Edwin H. Shepard in *The Times* of June 7.

The editor states "In response to the public demand for medical news and in recognition of the part played by the press in combating disease, medical press bureaus have been established. Newspaper men are grateful for their aid in interpreting medicine. But the information supplied about a new discovery is second-hand. There are questions that the reporter would like to ask the discoverer and pictures of the great man that the public would like to see. Woe unto the medico who yields to importunities. He runs the risk of being ejected from medical societies as a publicity seeker. Cruel injustices are sometimes thus perpetrated. The great physicist who grants an interview on his success in driving some new particle of matter of the atom or permits himself to be photographed in his laboratory is certainly no more given to advertising himself than the man who becomes famous through his method of treating pneumonia or schizophrenia. In a democracy where speech is still free the physician is the one scientist who is muzzled."

"The medical bureaus of information have done commendable work in aiding the newspapers to suppress the quacksalvers who seek publicity. Yet only a beginning has been made in bringing about a better understanding between the press and medicine. The next step is to make it possible for men engaged in research to escape ostracism when they satisfy a legitimate demand for first-hand opinions of the kind that the public is entitled to hear."

Dr. Shepard, on the other hand, tells us that "as one who served his first apprenticeship in the newspaper profession and later became a physician, has with years of experience changed his ideas on what may or may not be medical news. Medical news itself is a proper public concern, which is already being recognized in practical co-operation by various county and State medical organizations. News of medical men has a deeper implication. Attractive as it may be to see the features of medical scientists or practitioners in public print, these men themselves know that a free rein in this regard would bring results far too seri-

ous to counterbalance the pleasure of the public in seeing their faces in print.

"I know from experience that almost all the desire and effort for publicity come from the quack and the charlatan. These are the men against whom the ban on publicity is aimed. It is these who have a new 'discovery' to announce always in a field in which there has been limited success by others. It is these who perform a new operation which sounds wonderful but to which no conscientious physician would subject a patient. Without a restraint on these men a vast amount of harm and grief comes to the public.

"The firm adherence of medicine to what it is convinced is right or for the public welfare is an idea which the bulk of social and public workers seem wholly unable to comprehend."

"OF COURSE, THE MONEY TO SUPPORT this plan (compulsory health insurance) comes from pay envelopes. If this goes on, all the worker will get each day is an envelope with a statement inside. He can't eat the statement."—From the *Lewiston (Maine) Journal*, of recent date.

"PHYSICIANS WHO KNOW FROM experience the value of economic preparation, have urged repeatedly that courses in medical economics be included in the medical curriculum.

A course in medical economics will not transport the tyro to Utopia. He will still have to face the lean, early years of practice and experience the painful process of waiting for his office bell to ring.

"At least, however, he will understand what is happening to and about him. The business side of his office will be efficiently run. If he prospers, he will know how to invest his savings wisely and how to secure himself against disability and old age.

"In his relationship with the rest of the profession, too, the influence of economic knowledge will be felt. *He will recognize the importance of strong, militant organization to further the interests of medical men as a whole. He will refuse to be swayed by the winds of spurious social theory* (Italics ours).—H. Sheridan Baketel, writing in the *June Medical Economics*.

SAID GOVERNOR LEHMAN RECENTLY "The State, in medicine and surgery, as well as in almost every other social activity, can do

only a relatively small part of the necessary and essential work. State activity, no matter how well administered, can never successfully take the place of the private practitioner, or the privately endowed institution. Government can never be substituted for the interests of the countless thousands of men and women, both professional and lay, who have given themselves without stint and without thought of self, to the social and technical services which people have come to expect and to demand."

"WHEN IMPATIENT, SELFISH FORCES are colliding violently and impeding the effort of democracy to improve the life of the average man it is like a breath of fresh air in a choking room to have the American Medical Assn., undertake of its own initiative a search for ways to spread the benefits of modern medical science more thoroughly over the population.

"Physicians do not want this problem to be manhandled by politicians, and therefore wisely initiate a movement in the hope that it can be directed by those who know something about the subject."—Raymond Clapper, writing in the *New York World-Telegram*, June 9, 1937.

UNDER STATE MEDICINE *The Sun Dial* thinks "It is even possible that while a doctor will be allowed to say 'Lemme see your tongue,' the actual inspection will have to be done by five Federal commissioners."—From the *New York Sun*, June 12, 1937.

"FOR SEVERAL YEARS PAST the medical profession has been subjected to microscopic study by a great variety of agencies. Some have been looking for evidence to prove that all medical care should be socialized, others have been bent upon showing that socialization would be demoralizing and ruinous. Lately doctors have become highly articulate. Among themselves they have evolved suggestions counter to state medicine.

"There first concern has been to forestall anything like 'socialized medicine,' 'state medicine' or compulsory health insurance, to all of which an overwhelming majority of our doctors are opposed, both as scientists and as good American citizens."—*New York Herald Tribune*, June 13, 1937.

HOUSE OF DELEGATES

MINUTES OF THE ANNUAL MEETING

May 24 and 25, 1937

The 131st Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Chamber of Commerce, Rochester, New York, on Monday, May 24, 1937 at 10 A M

Dr Samuel J Kopetzky, Speaker, Dr James M Flynn, Vice-Speaker, Dr Peter Irving, Secretary, Dr Edward C Podvin, Assistant Secretary

1 Committee on Credentials

THE SPEAKER The Secretary will make a report for the Committee on Credentials

THE SECRETARY There are no disputed delegations, and all those present as delegates are entitled to vote

THE SPEAKER I declare the 131st Session of the House of Delegates open for the transaction of its business

The Secretary called the roll by counties and stated "There is a quorum present."

THE SPEAKER Let us bear in mind those who have passed on since our last session Today we miss Luther A Warren, Daniel S Dougherty, George H Fox, James N Vander-Veer and George A Leitner The House will rise (The House rose for one minute)

2 Approval of the Minutes

On motion, seconded and carried, the reading of the minutes of the last meeting was dispensed with, and the minutes were approved as published in the June 15, 1936 issue of the NEW YORK STATE JOURNAL OF MEDICINE

3 Reference Committees

THE SPEAKER The Secretary will now announce the reference committees

The Secretary read the following Reference Committees

REFERENCE COMMITTEE ON REPORT OF THE PRESIDENT

Warren Wooden, *Chairman*, Monroe
William W Street, Onondaga
Herbert H Bauckus, Erie
Norman S Moore Tompkins
George A Newton, Nassau

REFERENCE COMMITTEE ON REPORTS OF SECRETARY COUNCIL CENSORS AND COUNCILORS

Gny S Carpenter, *Chairman*, Tioga
Coburn A L Campbell, Suffolk
Richard H Sherwood, Niagara
Albert H Gartner, Erie
J Sturdivant Read, Kings

REFERENCE COMMITTEE ON REPORTS OF TREASURER AND TRUSTEES

Terry M Townsend, *Chairman*, New York
William Klein, Bronx
James H Donnelly, Erie
Walter D Ludlum, Kings
Norman S Cooper, Greene

REFERENCE COMMITTEE ON REPORT OF LEGAL COUNSEL

Willard H Veeder, *Chairman*, Monroe
William B D Van Auken, Rensselaer
George S Towne, Saratoga
William C Treder, Schenectady
Floyd J Atwell, Otsego

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON PUBLIC RELATIONS

Robert Brittain *Chairman*, Delaware
Vincent S Haywood, Bronx
Frederic W Holcomb, Ulster
Robert F Barber, Kings
John J Clemmer, Jr, Albany

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

Robert Brittain, *Chairman*, Delaware
J J Masterson, Kings
J Stanley Kenney, New York
Anthony J Zaza, Madison
Ross F Wolever, Oswego

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON LEGISLATION

Horace M Hicks *Chairman*, Montgomery
James H Borrell, Erie
Walter P Anderton, New York
John J Bnettner, Onondaga
Clarence V Costello, Monroe

REFERENCE COMMITTEE ON REPORTS OF COMMITTEES ON SCIENTIFIC WORK AND ARRANGEMENTS

Arthur F Heyl, *Chairman*, Westchester
J Homer Cudmore, New York
Daniel C Munro, Essex
Henry W Miller, Putnam
William Hale, Jr, Oneida

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON ECONOMICS

James F Rooney, *Chairman*, Albany
Moses H Krakow, Bronx
Harry Aranow, Bronx
David J Kaliski, New York
DeForest W Buckmaster, Chautauqua

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON TRENDS

Louis H Bauer, *Chairman*, Nassau
Judson M Burt, Livingston
Clarence G Dandler, New York
Chas A Anderson, Kings
Daniel R Reilly, Cortland

REFERENCE COMMITTEE ON REPORT OF WORKMEN'S COMPENSATION PROCEDURE

Joseph C O Gorman, *Chairman*, Erie
Thomas M Brennan, Kings
Julius Ferber, New York
Andrew Sloan, Oneida
William A Peart, Niagara

REFERENCE COMMITTEE ON NEW BUSINESS (A)

Edward R. Cunniffe *Chairman* Bronx
 James Alexander Miller, New York
 Harry D. Mencken Queens
 David W. Beard, Schoharie
 Arthur S. Driscoll, Richmond

REFERENCE COMMITTEE ON NEW BUSINESS (B)

Thomas A. McGoldrick *Chairman* Kings
 Conrad Berens, New York
 C. Knight Deyo, Dutchess
 Reeve B. Howland, Chemung
 Samuel M. Allepton Broome

REFERENCE COMMITTEE ON NEW BUSINESS (C)

B. Wallace Hamilton, *Chairman* New York
 J. Lewis Amster, Bronx
 Harry C. Guess, Erie
 John L. Bauer, Kings
 Edward T. Wentworth, Monroe

REFERENCE COMMITTEE ON NEW BUSINESS (D)

Walter W. Matt, *Chairman* Westchester
 Frederic C. Conway Albany
 Lyman C. Lewis, Alleghany
 Adolph G. DeSancus New York
 James M. Dobbins, Queens

CREDENTIALS

Peter Irving, *Chairman*, New York
 Edward C. Podvin Bronx

4 Address of the President

THE SPEAKER The President has a supplementary report.

DR. WINSLOW This occasion furnishes me an opportunity to submit to you the good wishes of the Medical Society of the County of Monroe.

You may recall that at the beginning of my administration we emphasized four points which we thought necessary to try to accomplish during the past year. They were as follows:

1 To improve the relationship which exists between the everyday practicing physician and members, officers and committees of the Society.

2 To try to improve the efficiency of the Executive Committee.

3 To thoroughly revise the business methods of the Society.

4 To try to improve the relationship which exists between the doctor and the hospital.

Taking this up, point by point, during the last year the officers of the Society, the chairmen, and members of each of the standing committees have taken opportunity on every possible occasion to attend the meetings of the different branches of the State and County Societies and there present to them the activities of the Society thereby presenting an opportunity for discussion. We have earnestly tried to represent the Society in that matter.

In the attempt to improve the methods of the Executive Committee, we have attended the meetings and have met with the Board of Trustees and the chairmen of the standing committees. It has cost something to have

these men in, but we think it is economical because it has reduced the number of meetings of the committees.

A committee headed by Dr. Mitchell, has made very earnest effort in the last year to revise the constitution and by-laws of the Society. This revision will be presented for your consideration during this meeting, and whatever action you may take on it I wish you to thoroughly understand that this work represents the best thought of the leading members of our Society, and that these men have worked ardously and earnestly to do what they thought was best for the Society.

One of the gravest problems of the Society has been the relationship which the doctors maintain with the hospitals. This year, for the first time, we have had the opportunity of meeting representatives of the New York State Hospital Association so that the Committee from your Society could sit down with them at a table and present our problems and discuss them. As a result of those discussions we have settled nearly all of our problems. A few of these problems still remain because they will take a little more time. I recommend for your consideration that this committee should be maintained.

From the standpoint of legislation, the Society has enjoyed a peaceful year, thanks to the efforts of the chairman of the Legislative Committee and the members of his committee. Thirty-three pieces of legislation adverse to the Medical Society have been defeated and twelve constructive measures which we felt would promote the interest of the Society have been passed.

I am happy to tell you the most recent development in this field is the fact that the Governor has signed the Malpractice Act.

Your officers, chairmen and committeemen have earnestly endeavored to maintain, preserve, and advance a relationship which this Society maintains with the outside agencies throughout the year.

In closing, I again express to you the desire of the Medical Society of the County of Monroe, while acting as your host, to be of service to this House, and we hope you will have a successful meeting and that you will further advance the efforts of the Medical Society of the State of New York.

5 Address of the President-elect*Section 57*

DR. CHARLES H. GOODRICH, Kings Mr Speaker, Mr President, and members of the House of Delegates

These are crucial years for purveyors and consumers of modern medical service. Fate common to all is awaiting determination by public opinion. Public opinion awaits the adequate distribution of intelligence, truths wisely and clearly set forth by our profession. Moreover it awaits leadership which only physicians can give. Yet public opinion is often impatient—and the need is for prompt but unhasty

deliberation concerning vast matters far greater than any one revolutionary proposition such as Compulsory Health Insurance. Those laymen who for various selfish reasons would arrogate to themselves leadership in health and medical service repeat "when doctors disagree what can we conclude." Thus unity in thought and action are supremely desirable. Recommendations providing opportunity for such thought and action will shortly be offered by the Booth Committee, recently appointed by our President, Floyd Winslow.

The license to practice medicine implies greater obligation to the public than diagnosis of disease and treating patients for a consideration. What implications challenge our special interest during the coming year?

We often hear from members "What do I get from the County Society—or the State Society?" The answers are so many and obvious as to render repetition needless. The *spirit* prompting such remarks requires reformation. The questions of each and all members should be "how much can I *do* for my County Society or State Society, how much can I *put into* them?" Two to four per cent give generously of time and effort. Let us try to infuse this type of loyalty into the *entire membership* of our component county societies! Greater active constructive interest will produce enlarged influence.

In harmony with this let us ask, is our income adequate for our tasks? Are our dues in county societies and assessment in State Society for the realization and protection of our ideals commensurate with our income? The Union laborer pays from eight to fifteen times as much. The amount paid to New York State physicians as fees under the operation of the Compensation Law in 1936 was between eight and nine million dollars. Would two per cent of this be too much to expect?—\$160,000 to \$170,000? And how much per cent of the rest of our incomes? Altogether would ten, fifteen or even twenty cents a day be too much to dedicate to the maintenance of our position in the group relationships of the social structure? This is not only for our own sakes but for the public weal. This is something to think about and discuss. Limited funds in county or State may seriously limit accomplishment. We need more full time employees to be directed by our officers and committees and to place less dependence for detail work upon men whose careers are already overtaxing their hours and strength.

* * *

Four years is a brief time in which to provide a course in medicine. Graduating students have better technical education than ever before except in a department which includes *materia medica*, therapeutics, and pharmacology. It is often ridiculous and pathetic to watch a graduate of one to three years attempt to write a prescription. Sources of drugs, methods of preparation, physiological action, therapeutic application and dosages are all practically unknown to the otherwise up-to-the-minute rising

star. He is also unaware of incompatibles, symptoms and treatment of poisoning, Young's Rule, and like elementary information. Only the excessively detailed and abundantly sampled proprietaries and *insulin* are recognized. The principles of application of many forms of physiotherapy are unknown. We *recommend* that during the coming year considerable attention be given to *materia medica*, *therapeutics*, and *pharmacology* in scientific programs of our county and district meetings and county and state lecture courses. We further *recommend* that the Journal Management Committee be requested to establish in the NEW YORK STATE JOURNAL OF MEDICINE, a Department of *Materia Medica*, *Therapeutics* and *Pharmacology*, which may, in their wisdom, include articles by outstanding authorities in our profession, inquiries answered, therapeutic experiences, suggested methods of prescribing, and any other teaching by the written word which in its judgment will increase practical knowledge and skill in these subjects.

* * *

Although already initiated by your officers and committees, active *individual* cooperation with Health Departments and Health Officers seems indicated. In some large counties the Public Health Committees accomplish wonders. More wonders can be done by general membership insistence that all are live participants in the health projects of the community. The public expect this. Commissioners hope for it. Law implies our interest and cooperation. We are fit. There is much to be done. Behold what our Public Health Committee has accomplished under Dr Farmer. Every member can do his share in his own community. Every county society is urged to adequately enthuse its membership with the slogan "*Every Physician a Health Officer*"

* * *

Our profession is vocal concerning *Preventive Medicine*. Practically we have produced a certain few specific immunizing measures and have conducted campaigns to popularize them or to provide for required adoption by community or state. This is *specific* preventive medicine. Otherwise preventive medicine is a field so vast and so promising as to fascinate dreamer and worker. Ample reservoirs of information are reposing in our great libraries. What percentage of these are practically utilized? In what degree is the profession informed? How much have we taught our public?

When we say preventive medicine we mean all sorts of measures and provisions for preserving life and health. We include sanitation, hygiene, exercise, diet and drinkables, housing, ventilation, lighting, heating and, in general, the conduct of homes, schools, and institutions. We think of industrial diseases and injuries, street injuries, and accidents in sports. Also upper respiratory infections, epidemic and

endemic, precancerous irritations, focal infections of teeth and tonsils and their relations to arthritis and various infections of the respiratory and gastrointestinal tract. The degenerative diseases are increasing their toll of devoted tense workers especially among our own kind. Prevention of asphyxial deaths (including anesthesia) is an important item. Companion with this are the varying degrees of anoxemia suffered by many unconsciously and unnecessarily. We think of maternal welfare and the care of the healthy child. (In this we have made an appreciable start). Diseases of animals must be considered especially as transmissible to man. All of the infectious diseases can be reduced to a minimum, notably tuberculosis and syphilis. There is the physical welfare of the blind and deaf (ably studied by Dr. Hambrook's Committee). We think of the mentally deficient child and the too precocious child. Personal hygiene and mental hygiene are significant factors in complex living. Electricity including the x-ray menaces human safety. Also important is the hygiene of ports and ships that arrive and depart. Atmospheric pollution by smoke, dust, sand, carbon monoxide, and gases innumerable should be controlled. Moreover there are those numberless instances of acute infections and minor or major injuries in which prompt treatment in the hours of inception or reception may be *realistic* preventive medicine. Such treatment may prevent serious or critical illness, loss of time, earning power, and perhaps function, for the patient. As a corollary the physician would have many easy tasks instead of a few huge heartbreakers.

Preventive as well as curative medicine can be advanced by an increased percentage of recorded postmortem examinations. This may call for elaborate endeavor along special lines.

Thus is sketched all too incompletely the field of preventive medicine. Much of it can be cultivated for the *individual* by the masterly *complete* periodic health examination. This is an accepted procedure in theory but with low percentage in practice. If universally sought and practiced it would require the patient devotion of much time and great skill. In that day we must be ready with schedules, record blanks and equipment—material and mental—to do thorough work. When largely demanded by the people many specialists in this line will be needed. Therefore

We recommend that during the coming year in county and district branch meetings the subject of preventive medicine be actively presented, discussed, and that its practice by the profession be encouraged in every possible way, and

We recommend that contributions on preventive medicine to the STATE JOURNAL be offered by the membership and sought by the Journal Management Committee, and

We recommend that whenever and wherever possible lay audiences throughout the state be provided with addresses or lectures on preventive medicine, such provisions to be made by county societies, District Branch officers,

by the Public Relations Bureau of this Society, or by concerted action.

In connection with this last recommendation, may we remind you that preventive medicine can arrive at its goal only when an eager *enlightened public apply for it*. The enlightenment must come from us. We must convince them of the advantages obtainable.

I bespeak the valuable suggestions, sound advice, and cordial cooperation of the delegates and membership during the coming year.

THE SPEAKER This will be referred to the Reference Committee on the President's Report.

Since we last assembled this State has been honored in the National Organization by election to its highest office of one who has been very active among us, Dr. Chas. Gordon Heyd, president of the American Medical Association.

6 Address of the President of the American Medical Assn.

DR. HEYD Mr. Speaker, and members of the House of Delegates. I hope I am in no way changed from the time that you saw me at the last meeting of the House of Delegates except that I am possibly a year older, but still essentially unchanged.

It has been my good fortune to travel through many a state of this country and to see state societies working under the same conditions. I may say that the spirit that runs through organized medicine has never been so manifest as it is today, nor has there been a greater inspiration to preserve the best features of medical service in the practice of medicine. Therefore I feel that medicine is marching forward triumphantly and courageously.

It gives me very deep pleasure, Mr. Speaker, to bring to you personally and to the House of Delegates this very small implement of social organization. (*Presenting an inscribed gavel to Dr. Kopetzky*) Two thousand years of law and order are represented in this gavel.

On behalf of the American Medical Association we wish you a most successful session.

THE SPEAKER Thank you, Dr. Heyd. Since we last met there are two men who have been honored by the American Medical Association. One is the speaker of the American Medical Association, Dr. Van Ethen, and the other is Dr. Cunniffe of the Bronx who has joined an important committee on Judiciary in the American Medical Association.

7 Introduction of Guest

THE SPEAKER I want to welcome as our guest a distinguished medical man, Dr. William P. Waring, of Omaha, Nebraska.

DR. WARING Mr. Speaker and members of the House of Delegates. I am deeply appreciative of this honor. I know that you are going to have a busy session and I hope to gain a lot by watching this house in action.

8 Supplementary report of the Treasurer

Section 33

DR. GEORGE W. KOSMAK, *Treasurer* The audit of the Society's treasury is dated December 31, 1936, as this marks the conclusion of its fiscal year. As noted in my published report this indicates an excess of income over expenditures of \$17,646 55, which was transferred to the surplus account. This sum includes an item of approximately \$8,700 from interest on invested funds and of about \$2,400 of gain from the sale or calling in of securities. The actual margin between dues collected from the membership and expenditures during the fiscal year is only about \$6,300. Appropriations authorized during the current year since January first for additional committee expenditures and other purposes total a sum of \$4,000 and over.

Your treasurer desires to repeat a warning conveyed in his original report and which is now strengthened by the events of recent months, that your Society must assure itself of a larger margin between income and expenditure. Invested funds cannot be relied upon in the near or even distant future to yield an adequate return to meet whatever extraordinary demands may be made upon your treasury by a financial or other catastrophe. An organization of the size and importance of the Medical Society of the State of New York must assure itself of a larger cash surplus in particular, to meet such contingencies. It cannot be operated successfully or with dignity on such a narrow margin of safety. One of the ways to solve the situation is to scale down on expenditures by whatever laudable efforts your officers and delegates may find it possible to employ. Another is to increase the Society's membership and the final and least desirable is to levy an additional assessment. The latter should only be regarded in the light of a final resort.

This supplementary report is submitted for your respectful consideration and action.

THE SPEAKER Referred to the Committee on Report of the Treasurer

9 Supplementary report of Executive Committee

DR. PETER IRVING, *Secretary* To the House of Delegates, Gentlemen

The Executive Committee submits a supplementary report on certain matters brought to conclusion following its report of April 1, 1937

MEDICAL EXPENSE INDEMNITY INSURANCE

Study of this matter throughout the year led to the formulation, as indicated in the previous report, of the following resolutions passed on February 11, 1937

1 We define Medical Expense Indemnity Insurance as a form of insurance whereby an individual, by making payments of stated premiums, purchases a definite sum of money in cash, which is thus made available to him

for the payment of the individual's physician's charges for professional services. We recommend endorsement of such a form of insurance

2 We would add that in our opinion the physician's claims for his professional services should be a first lien on the cash indemnity

3 That the Medical Expense Indemnity Insurance Plan must be carried out on an actuarial basis

4 That philanthropy has no place in a Medical Expense Indemnity Insurance scheme or plan to deliver cash benefits to those who pay its premium requirements, so as to have funds to meet physicians' charges for services

At this time the Executive Committee instructed the Committee on Economics to formulate a model bill in detail complete on a non-profit Medical Expense Indemnity Insurance Plan and submit it to the Executive Committee for consideration. The Committee on Economics then drew up and submitted a proposed amendment to the Insurance Law for the purpose of legalizing Medical Expense Indemnity Insurance as follows

An Act

To amend the Insurance Law and the Membership Corporation Law, in relation to Non-Profit Medical Expense Indemnity Corporations

The people of the State of New York, represented in Senate and Assembly, do enact as follows

Section 1 Chapter thirty-three of the Laws of nineteen hundred nine, entitled "An Act in Relation to Insurance Corporations, Constituting Chapter twenty-eight of the Consolidated Laws" is hereby amended by adding thereto a new Article, to be Article Fifteen, to read as follows

ARTICLE 15

NON-PROFIT MEDICAL EXPENSE INDEMNITY CORPORATION

§ 470 *Definition and Scope of Article* Any corporation heretofore or hereafter organized under the Membership Corporation Law of the State of New York to be known as a Non-Profit Medical Expense Indemnity Corporation for the purpose of establishing, maintaining and operating a Non-Profit Medical Expense Indemnity Plan whereby members shall be indemnified to an amount not exceeding three hundred dollars in any one policy year, for amounts paid out or agreed to be paid out by them for medical and/or surgical care and treatment and nursing care, under the terms, limitations and conditions of membership certificates issued to them after the conditions, limitations and terms and premium rates of such membership certificates have been approved by the Superintendent of Insurance, shall be governed by this Article and shall be exempt from

all other provisions of the Insurance Law of this State, unless specifically designated herein, not only in governmental relations with the State but for every other purpose and no additions or amendments hereto, hereafter enacted, shall apply to them unless so expressly designated therein. The Superintendent of Insurance may require any such Non-Profit Medical Expense Indemnity Corporation to establish and maintain the same reserves for the protection of members as are required to be maintained by stock insurance corporations in relation to insurance of a similar class, except that the Superintendent may be governed by the provisions of subdivision one of subdivision B of section three hundred forty-four of this Chapter in setting up the reserves of any such corporation. The Superintendent of Insurance may require reinsurance in such form and amount in a stock insurance corporation as the circumstances of risk may require to assure solvency of a Non-Profit Medical Expense Indemnity Corporation confronted by unusual or catastrophic losses

§ 471 *Incorporation.* 1 Persons desiring to form a Non-Profit Medical Expense Indemnity Corporation shall incorporate under the provision of Article two of the Membership Corporation Law of the State of New York.

2 At least two-thirds of the directors of such corporation chosen at the first annual and each subsequent meeting at which directors are chosen, shall be selected from a list of persons nominated by a Committee designated for such duty by the local County Medical Society in which such Medical Expense Indemnity Corporation maintains its principal office, except when there is no local County Medical Society and/or when a local County Medical Society shall fail or refuse to designate such nominating committee, the governing body of the Medical Society of the State of New York shall designate such nominating committee, and/or when more than twenty-five percent of the membership of such Non-Profit Medical Expense Indemnity Corporation is resident in two or more Counties then the nominating committee shall be designated by the Medical Society of the State of New York.

3 Every certificate of incorporation of a Non-Profit Medical Expense Indemnity Corporation filed pursuant to the provisions of the Membership Corporations Law of the State of New York shall have endorsed thereon or annexed thereto the consent of the Superintendent of Insurance of the State of New York and the State Department of Social Welfare as provided in the Membership Corporations Law

§ 472 *Annual Reports of Corporations* Every such corporation shall annually on or before the first day of March file in the office of the Superintendent of Insurance a statement verified by at least two of the principal officers of said corporation showing its condition on the thirty-first day of December, then next preceding, which shall be in such form and

shall contain such matters as the Superintendent shall prescribe.

§ 473 *Examinations* The Superintendent of Insurance, or any deputy or examiner or any other persons whom he shall appoint, shall have the power of visitation and examination into the affairs of any such corporation and free access to all the books, papers and documents that relate to the business of the corporation, and may summon and qualify witnesses under oath to examine its officers, agents or employees or other persons in relation to the affairs, transactions and condition of the corporation

§ 474 *Acquisition Costs* All acquisition costs in connection with the solicitation of subscribers to Medical Expense Indemnity Plans shall at all times be subject to the approval of the Superintendent of Insurance

§ 475 *Funds* The funds of any corporation subject to the provisions of this Article shall be invested only in securities permitted by the Law of this State for the investment of assets of Life Insurance Companies

§ 476 *Dissolution and Liquidation* Any dissolution or liquidation of a corporation subject to the provisions of this Article shall be under the supervision of the Superintendent of Insurance who shall have all power with respect thereto granted to him under the provisions of Article eleven of this Chapter

§ 477 *Taxation* Every corporation subject to the provisions of this Article is hereby declared to be a charitable and benevolent institution, and all of its funds shall be exempt from every state, county, district, municipal and school tax other than taxes on real estate and office equipment.

§ IV Subdivision One-B of Section eleven of Chapter forty of the Laws of nineteen hundred nine, entitled "An Act in Relation to Membership Corporations, Constituting Chapter thirty-five of the Consolidated Laws" as added by Chapter three hundred twenty of the Laws of nineteen hundred thirty-five, is hereby amended to read as follows

1-B If Certificate of Incorporation specifies among its purposes the establishment, maintenance and operation of a Hospital Service Plan or a Medical Expense Indemnity Plan as permitted under Article fourteen of the Insurance Law, the consent of the Superintendent of Insurance and the State Department of Social Welfare shall be endorsed thereon or annexed thereto

§ 4 This Act shall take effect immediately

* * *

With the above draft the Committee on Economics submitted the following explanatory comments as a guide to discussion on Medical Expense Indemnity Insurance and its supervision and regulation

1 Medical care is a service and not a commodity. In the nature of its creation and maintenance it is unlike and apart from all other human relations in which materials and ser-

vices are exchanged It is a *necessity of life* which does not admit of variation of quality without serious prejudice to the interest of the receiver

Quality of Medical Care rests upon the physician's individual aptitude and intelligence, preparatory education and training, individual integrity, and environmental economic conditions The variable expressions of each disease disorder, and the variable reactions of each individual to injury and other conditions which influence the state of health, preclude inflexible standardization of procedure Medical care must always remain the practice of the art of adaptation of methods and principles to the personal problems as presented in an individual

Therefore, regulation and supervision of Medical Care must take into account inevitable humanistic vagrancies of personal conduct on the part of both the one who receives and the one who renders medical care.

In undertaking to establish ways and means of meeting the costs of good medical care, especially for the lower income levels of a community, thru some plan of collective action or organization of interests, such as by medical expense indemnity insurance, some provision for the general maintenance of the highest quality of service must be made

WHO SHOULD BE INVESTED WITH SUCH RESPONSIBILITY AND AUTHORITY? Can any layman or board of laymen successfully undertake such function? Without complete understanding of the sciences and technics of medical practice, and without the knowledge that arises from practical experience of intimate contact with the responsibilities and problems of medical practice, such authority must fail to serve the true interests of the injured and sick.

The question arises, therefore, by what practical program or plan can the conduct of medical care be safeguarded by the medical profession? Since the public, collectively and individually, trust their lives and health in the confidence of medical men, may they not well trust the general control of medical conduct in the collective action of the medical profession as represented in the organized medical societies?

CONCLUSIONS The first step in the establishment of a non-profit mutual association of laymen for the application of Medical Expense Indemnity Insurance should be the establishment of contractual relation between the insurance group of the local County Medical Society for the founding of cooperation of such local County Medical Society in the operation of the plan or, with the State Medical Society when the operations of the association extend into two or more counties

2 THE CONTRACT should include Articles on the following items

(a) Provision of a panel of physicians who agree to abide by rules of conduct prescribed by the Medical Society, who agree to abide by rules of conduct, and abide by arbitration

settlement of any disputes or differences which may arise out of the care of insured patients

(b) Acceptance by the Insurance association of the arbitration settlement of any differences arising out of the contractual relationships

(c) Definition or specification of health and medical care problems which are to be included under the insurance coverage.

(d) A schedule, or schedules, of fees for services which may be rendered under the terms of the insurance coverage, and provision for the revision of such schedules from time to time, that they may be adjusted to any change in general economic conditions

(e) Provision by the Medical Society of a list of nominees for the directorate of the insurance association

(f) The insured shall exercise free choice in the selection of attending physician, within range of the panel established by the Medical Society

(g) Exemptions for emergent care, for domiciliary care and needs of insured while temporarily resident outside the home community shall be defined.

(h) The association shall make no contract with the physician or group of physicians for medical care of insured members other than as herein specified

3 ORGANIZATION OF ASSOCIATIONS Each association should be required to file with the State Insurance Department a Constitution and By-laws which shall conform to the following standards

(a) *Size* The number of insured in any one association should be limited to 5,000 persons, and/or to the residents of one community (rural), to the employees of one industrial organization

(b) *The Officers* of the association should be limited to persons who by residence, occupation or otherwise are closely related or associated with the members of insured, and who by reason of which are personally familiar with the daily life and habits and general conditions under which the insured live. Officers shall be elected by vote of the insured

(c) The association shall be incorporated as a non-profit mutual association, and shall be self-reliant as to financial resource

(d) The association shall not contract to provide any form of medical treatment and/or diagnosis service

(e) The association shall contract with its members only to provide certain sums of money to satisfy the obligations of the insured for medical diagnostic or surgical care

(f) The association shall impose no obligation or regulations upon medical attendants of the insured except thru the agency of the local County Medical Society

(g) Two-thirds of the governing board of the association shall be chosen from the list of candidates nominated by the local County or State Medical Society

(h) The association shall require from the applicant for membership a certificate from any and all physicians who have attended or ex-

anned such applicant within the twelve months next preceding, attesting that there is no known pending need for medical or surgical care, and/or the applicant shall sign a waiver against such specific need, if there be a known need. A fraudulent or deliberate mis-statement by the applicant or a medical attendant shall void the obligations of the association.

(i) Extension or retrenchment of coverage shall be made only upon agreement with the local County or State Medical Society, and upon sound actuarial appraisal, and not without sanction of the Superintendent of Insurance.

(j) The association shall not contract to indemnify the expense of minor or trivial ills, nor for the initial expense of major ills. The exact limits of initial expense to be borne by the insured to be determined according to the premium benefit schedules agreed upon between the association and the Medical Society, and approved by the Superintendent of Insurance.

(k) Such association shall not agree to provide other benefits particularly it shall not provide any benefit in cash or otherwise for the loss of income incident to unemployment arising out of illness.

(l) The association shall not provide indemnity benefits for care of any insured in an institution not approved by the Medical Society.

(m) The association shall limit its membership and the participation in its benefits to persons of prescribed limits of personal or family income according to agreement with the Medical Society, and as approved by the Superintendent of Insurance.

(n) The association shall contract with the State Medical Society as a party of interest when twenty-five per cent or more of its members reside in another County than that in which the association has its principal office.

(o) The association shall protect its financial stability against unusual or catastrophic losses by "re-insurance" in a stock insurance company, in such form and amounts as may be required by the Superintendent of Insurance, according to the circumstances of each association.

4 AUTHORITY AND RESPONSIBILITY OF MEDICAL SOCIETIES (a) Panel Each County Medical Society shall designate a committee whose duty it shall be to list any duly registered physician who desires to participate in the professional care of insured members of the association, according to his qualifications and experience, and who agrees to abide by such rules and regulations as the Society may from time to time establish for the supervision and regulation of the conduct of physicians. The Society shall have authority to collect such reasonable annual fee for such listing as may be necessary for the costs of administration.

(b) The Society thru a designated committee shall have the right to investigate the conduct of any panel physician upon complaint of the association of an insured member, or by its own initiative.

(c) A physician shall be removed from the panel of participating physicians by the designated committee of the Medical Society when it shall find, after reasonable investigation, that said physician

(1) has been guilty of professional or other misconduct or incompetence in connection with medical care rendered an association insured patient, or

(2) has rendered medical or surgical service to a member of the association under the terms of this insurance for a fee less than the prescribed minimum standard of the schedule of fees, or

(3) has participated in the division, transference, assignment, rebating, splitting or refunding of a fee for medical service under the terms of the Medical Society—Association contract, or

(4) has solicited, or has employed another to solicit for him or for another the professional treatment, examination or care of an insured member of the association, or

(5) has been removed from the panel of physicians authorized by the *Local County Medical Society* to render medical care to injured workmen under the provisions of Chapter 258 of the Laws of New York State.

(6) a physician under disciplinary sentence may appeal for re-hearing by the committee or governing body of the Medical Society, and the decision of that body shall be final.

(d) The designated committee shall have power to negotiate and from time to time revise the schedule or schedules of fees for medical service.

(e) The governing body of the local County or State Medical Society shall establish rules of procedure for arbitration of issues of difference or conflict arising out of this contractual relationship between insured members of the association and members of the panel participating physicians.

(f) Issues of dispute or conflict between the association and the Medical Society shall be settled by arbitration under rules prescribed by the Superintendent of Insurance.

5 MEDICAL EXPENSE INDEMNITY INSURANCE COUNCIL. Under the Superintendent of Insurance, there shall be established an advisory body for the consideration of problems developing out of experience of organization or administration of Medical Expense Indemnity Insurance. The Council shall be composed of nine members, one representing the Superintendent of Insurance who shall be the Chairman, one representing the Department of Social Welfare two other than Society officers representing the association membership three representing local County Medical Societies and two representing the Medical Society of the State of New York.

The duty of this Council shall be to study the application of this principle of insurance to the social problems of medical care for the people of low income, and to make recommenda-

tion to the Superintendent of Insurance for the proper supervision and regulation under authority of the State Insurance Commission

The Executive Committee then gave permission to the Committee on Economics "to carry on negotiations in this connection with the State Department of Insurance with the provision that the Committee on Economics not commit the State Society to anything based on the negotiations until the Executive Committee has acted thereon" Pending the report of such negotiations the Executive Committee postponed action on the entire matter of Medical Expense Indemnity Insurance and legislation pertinent thereto

On April 8, 1937, the Chairman of the Committee on Economics reported in detail on the conference with Mr Taylor of the State Insurance Commission concerning the Enabling Bill previously submitted to the Executive Committee. It was clear from this report that the attitude of the Insurance Commission was apparently cordial to the idea of Medical Expense Indemnity Insurance as detailed above. It is known that in the administration of Insurance Companies the State Commission is primarily interested in their efficient operation at low expense and their continued solvency and ability to pay claims as well as their fair treatment of the Public

CONFERENCE WITH THE STATE HOSPITAL ASSOCIATION

Subsequent to the previous report a further conference of sub-committees was held and the following report is submitted which embraces certain definite Articles of Agreement. These Articles are to be presented to the State Hospital Association for its action on May 20, 1937

Article I

The Hospital as such should not provide Medical Care a Hospitals should not themselves hereafter enter into agreements to provide medical care for any groups, persons or associations

That the question of the definition of "Medical Care" be tabled until the members have an opportunity to consult a copy of the "Medical Practice Act"

b Before entering into any contract or agreement where medical care is provided, the medical staff of the hospital and the organized medical group of the community should agree as to the ethical and economic wisdom of the proposal.

c. Where agreements are reached as in (b) the fee schedule should be used as a standard and guide for persons of a like standard of living

Article II

Hospitals should, in agreement with representatives of the local County Medical Societies, set up financial eligibility standards for ward and dispensary care

a Indigent patients should be treated professionally without charge as at present. This rule will be altered at any time when provisions are made for remuneration of physicians

b All patients within the range of the financial eligibility standards agreed upon should be treated in the wards of the hospital. The hospital may charge a maximum *per diem* fee agreed upon for ward care

c All patients above the agreed eligibility standards set for ward care should be the private patients of the members of the staff of the hospital. In such cases the physician should render his own bill after making his own arrangements as to a fee.

Article III

Pay clinics should be abolished by all hospitals and clinics

(Left Open for Final Phrasing)

a The financial eligibility standards for outpatient departments should be rigidly enforced

b The outpatient department should not be operated in such a manner as to compete with private practitioners of medicine.

c. The fees for admission to outpatient departments and other fees charged for diagnostic and other service in the clinic should be minimal fees not designed to provide a profit to the institution and not competitive with the private practitioner of medicine

d For equal services these fees should be uniform for the community and set after conference with the local County Medical Society

Article IV

Hospitals should abide by the spirit and the letter of the Workmen's Compensation Law and cooperate with representatives of the local County Medical Society in all matters pertaining thereto

Article V

The scope of full time physicians in hospitals should be carefully defined

a Such physicians should not compete with private practitioners of medicine in the treatment of private patients in the hospital

b The relation of full time physicians to the volunteer staff should be defined.

Article VI

Hospitals should not for the purpose of creating hospital income provide diagnostic or therapeutic services, in the auxiliary branches, to the general public.

Such services, however, may be made available where necessary upon the request of local practicing physician.

Nothing herein contained should be regarded as forbidding or discouraging the rendering by the hospital, without profit, of needed technical services which private practitioners themselves are unable to supply

Article VII

Hospital groups in each community should set up a conference or coordinating council with representatives of the County Medical Society and local hospitals to discuss matters of mutual interest and to carry out the recommendations mutually agreed upon.

Article VIII

A code of ethics for hospitals should be developed. Hospitals should not advertise or utilize the work of their professional staffs to advertise the institution.

Article IX

Hospitals should adopt a uniform cost accounting and bookkeeping system for the determination of the cost of hospital service.

a. This is imperative in developing good cost accounting throughout the hospital system and in clarifying departmental costs and establishing their bearing on the costs of medical care, and such costs should be made available to any member of the staff

Article X

Agreements with organized medicine in relation to the Associated Hospital Service, or similar services, should be faithfully carried out in letter and in spirit.

a. What constitutes "ordinary" x-ray and laboratory service should be defined and made uniform for the entire region or state.

Article XI

In all matters of legislation and proposed legislation uniting the interests of the hospital or the medical profession, the hospitals and the organized medical profession should confer in advance and both parties should act in conformity with such agreement and within the range and scope of the principles agreed upon.

Article XII

Hospitals should urge membership in the organized medical group for all members of the hospital and dispensary staffs who are eligible for such membership and who are in the private practice of medicine, and should take into consideration any action by a County Society against a member for unprofessional conduct.

The above Articles indicate the studied and final conclusions of the conferees. There are other matters that have been considered but which have not as yet been decided. Among these are questions of definition of "ordinary x-ray and laboratory service" as described in the Associated Hospital Service Certificate. A sub-committee of three from each group will begin discussion of this problem on May 17, 1937.

Problems that have arisen in relationship of radiologists and hospitals await future solution in the light of opinions now under consideration by the Council of the American Medical Association and the Trustees of the American Hospital Association.

APPOINTMENT OF REPRESENTATIVES TO THE ANNUAL MEETING OF THE CONNECTICUT STATE MEDICAL SOCIETY

The Connecticut State Medical Society formally requested the Medical Society of the State of New York to appoint two representatives to attend its Annual Meeting on May 19 and 20, 1937.

The Executive Committee looked favorably upon this request and authorized the President to appoint two representatives.

SPECIAL COMMITTEE TO CONSIDER PROVISION OF MEDICAL CARE

On May 13, 1937, the Executive Committee authorized the President to appoint a Special Committee for the purpose of considering principles which should in the light of present knowledge govern provision of medical care. On notification by the President the following Committee was selected:

Arthur W. Booth, <i>Chairman</i>	Elmira
Andrew Sloan	Utica
Edward E. Haley	Buffalo
Edward T. Wentworth	Rochester
Thomas A. McGoldrick	Brooklyn
Samuel J. Kopetzky	New York
Floyd S. Winslow, (ex-officio)	Rochester
Peter Irving, (ex-officio)	New York

THE SPEAKER Referred to Reference Committee on Reports of Secretary, Council, Censors and Councillors

10 Definition of the Term "Ordinary X-ray"

THE SECRETARY I A sub-committee of the conferees of the New York Medical Society and the New York Hospital Association, appointed to define the term "ordinary x-ray" used in group hospital insurance contracts, are agreed that it would be better to exclude such service from future agreements as early as possible, or to provide in such contracts for

tion to the Superintendent of Insurance for the proper supervision and regulation under authority of the State Insurance Commission

The Executive Committee then gave permission to the Committee on Economics "to carry on negotiations in this connection with the State Department of Insurance with the provision that the Committee on Economics not commit the State Society to anything based on the negotiations until the Executive Committee has acted thereon." Pending the report of such negotiations the Executive Committee postponed action on the entire matter of Medical Expense Indemnity Insurance and legislation pertinent thereto

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pliable for all portions of the state, owing to the many varying conditions. The need for further regional conferences in other portions of the State is evident.

Maternal Welfare Postgraduate courses on Obstetrics have been sponsored by the Society in five counties and one course was arranged by a county medical society, aided by our Committee. The State Department of Health is appropriating funds for the payment of expenses for the courses in four counties. As a result of a lecture sponsored in St. Lawrence County, and of attendance of representatives of this county at a regional conference on Child Hygiene in Watertown, a maternal mortality study has been started in that county. In connection with all of the courses on Obstetrics, plans for an active maternal welfare campaign are being formulated in these counties. Undoubtedly, regional conferences in various portions of the state is the ideal way to further this work.

Miscellaneous The Committee has made available to the administration in one county, advice regarding physical examination of N. Y. A. youths. As a result of the aid of the Committee on Public Health and Medical Education in supervising the physical examinations of 4-H Club boys and girls at the New York State Fair in September 1936, the Committee has been requested to advise in the formulation of a plan for the physical examination of the members of the county organizations of this club.

The Committee on Public Health and Medical Education met in Auburn on March 31, 1937, at the request of the officers of the Cayuga County Medical Society to advise that Society regarding a program setting up a division of maternal and child welfare in the Auburn City Department of Health. Subsequent to this meeting, the Cayuga County Medical Society approved such a plan.

At this meeting it was moved that the following resolution be submitted to the House of Delegates

"WHEREAS, motion picture films are being offered both free of charge and on a rental basis, by organizations, commercial and non-commercial, for programs of county medical societies, and in some instances with speakers, and

"WHEREAS, some of these motion picture films carry advertising matter or propaganda to which objection might be raised,

"Be It Resolved that the House of Delegates of the Medical Society of the State of New York, in annual session convened at Rochester, New York, this 24th day of May, 1937, request the House of Delegates of the American Medical Association to make provision for the review and classification of films and other similar material offered for programs of county medical societies so that information regarding them may be available to county medical societies,

"Be It Further Resolved, that the delegates from New York State to the annual meeting of the American Medical Association at Atlantic City on June 7, 1937, be instructed to pre-

sent and to further the passage of the foregoing resolution"

THE SPEAKER Referred to the Reference Committee on Public Health and Medical Education.

12 Supplementary report of Committee on Medical Trends

Section 49

DR. TERRY M. TOWNSEND, *New York* To the House of Delegates, Gentlemen Since April 1, the date of preparing the formal report to you of the work of this committee, additional progress has been made which is deemed worthy to be called to your attention.

The committee has prepared and mailed two issues of the "Speaker's Service Bulletin" and three issues of its "Spot Speaker's Service Bulletin" as follows No 1, "Tuberculosis Is Still a Serious Problem" No 2 April 3, "Anything Can Happen!" No 3, April 24, "Mother's Day" No 4, May 1, "The Doctor and the Public", No 5, May 12, "The Battle is Not Yet Won."

Numbers 1 and 3 were regular Bulletins, numbers 2, 4, and 5, "Spot" Bulletins, the distinction being that the latter have a timely and immediate usefulness in a higher degree than the usual bulletins

It is planned by the use of this method of presentation to emphasize one subject at a time, taking advantage of current popular thinking to present our ideas at the time they will receive the most widespread acceptance. Thus is avoided the academic attitude of indifference to timely current events while at the same time nothing in educational value is lost.

The function of these bulletins may be indicated by quoting from the explanatory description printed on the cover of each issue

"Physicians as a class are more influential in their communities than any other group. They have little time to address themselves to the technique of utilizing their influence. This service will aim to offer concrete specific suggestions to make it more easily possible for the doctor to exert the power of moulding public opinion which he already possesses

"The service will provide

"1 Subjects for talks before groups or over radio, with outline of speeches, and sample completed talks

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"3 Suggestions for assisting the doctor in appropriately commenting on quasi-medical matters of timely public interest in the course of his usual day to day contacts at club, church or elsewhere."

Reprints were obtained of the article in the May issue of *Nation's Business* entitled "Uncle

the payment of hospital, of roentgenologist, of pathologist and of anesthetist for their services

II In the meantime, the conferees believe that the term "ordinary" now in current contracts should be understood to cover only that minimum of diagnostic x-rays and laboratory examinations required for institution of therapy for the ailment for which the patient was admitted to hospital

THE SPEAKER Referred to Reference Committee on Report of Committee on Public Health and Medical Education

11 Supplementary report of the Committee on Public Health and Medical Education

Section 77

DR. FARMER The Committee on Public Health and Medical Education begs leave to submit the following supplementary report for the year 1936-1937

Graduate Education

The following is the corrected list of county societies in which graduate courses have been sponsored by the Committee during the current year

Cattaraugus	Obstetrics
Cayuga	General Medicine
Chemung	Syphilis
Clinton	Gastroenterology
Franklin	Gastroenterology
Herkimer	Obstetrics
Jefferson	Obstetrics
Madison	Internal Medicine
Monroe	General Medicine
Montgomery	Obstetrics
Rockland	Obstetrics
St Lawrence	Miscellaneous
Steuben	Syphilis
Sullivan	Orthopedic Surgery
Tioga	General Medicine
Wayne	General Medicine

The courses now being given in Clinton, Franklin, Herkimer, Madison, and Montgomery Counties will not be completed until some time after the annual meeting of the State Society. Columbia, Greene, Otsego, and Schoharie County Societies requested courses. Information was furnished these Societies regarding available courses, but no selection of a course was made.

Public Health

Pneumonia Control As mentioned in the regular report, the program on pneumonia control was sent to county medical societies with a letter on this subject. Replies were received from several county societies indicating an active interest.

The Chairman appeared at a hearing before the Senate Finance Committee in Albany, in support of a bill to further appropriations for pneumonia control work, and on the same day

attended a conference called by the Governor to consider the same purpose. As a result of this hearing and conference, a bill was passed by the Legislature and signed by the Governor, appropriating \$400,000.00 for the purpose of providing to physicians all types of pneumonia serum and making further studies in pneumonia control.

Syphilis Control The Committee has sponsored graduate courses on syphilis which were given to the members of the Chemung and Steuben County Medical Societies. As a result of this activity the Committee has been advised by the State Department of Health that it will make an appropriation to cover graduate education in syphilis to be sponsored jointly by that Department and this Committee of the State Medical Society.

Cancer Control A bill has been passed by the Legislature, providing for a commission to study cancer. This commission is to be composed of three members of the Senate, three members of the Assembly, and three members to be appointed by the Governor, one of whom is to be the State Commissioner of Health. At a meeting of the Committee on Public Health and Medical Education at the time this bill was introduced, the following motion was made, seconded and carried.

"It is our opinion that, since cancer is primarily a medical problem, a Commission to study this problem should be composed predominantly of medical men, similarly to the methods used in the study of the problems of syphilis and pneumonia, which have been well handled by joint advisory commissions composed of members of the medical profession and health groups."

It was further moved, seconded, and carried in the event of the passage of a bill providing for a Commission to study cancer, the Chairman of this Committee is authorized to advise the House of Delegates of the desirability of designating the Committee on Public Health and Medical Education to represent the State Medical Society at hearings to be held under the provisions of the bill, also as to the desirability of providing funds which will be needed by this Committee to obtain the information necessary and which will be expected of the medical group.

The Committee in conjunction with the Executive Officer is already acquiring information which it will be in a position to present to this commission when and if appointed.

Child Hygiene The sub-committee on Child Hygiene has held regional meetings in Buffalo and Watertown, which have provided the Committee with much information and have undoubtedly promoted interest in this matter among the representatives of the various county medical societies. Consideration has been given at these conferences to prematurity, nutrition, preventive inoculations, tuberculosis, examinations of pre-school and school children, the need of nursing service and problems connected with Child health clinics. Apparently a standard program on Child health would not be ap-

MINUTES OF ANNUAL MEETING

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pliable for all portions of the state, owing to the many varying conditions. The need for further regional conferences in other portions of the State is evident.

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"3 Suggestions for assisting the doctor in appropriately commenting on quasi-medical matters of timely public interest in the course of his usual day to day contacts at club church or elsewhere."

Reprints were obtained of the article in the May issue of *Nation's Business* entitled "Uncle

Sam, M D" They were sent to the 23,000 names on the mailing list of important influential citizens which we have built during the course of the last year and a half, and which now represents a considerable financial investment. We were requested to supply to two other state societies copies of this reprint in quantity bearing the imprint of the other societies, these were furnished to the number of 9,000 and additional requests are expected.

In all, as of the date of this supplementary report, a total of 95,994 copies of the pamphlet "On the Witness Stand" have been sold to medical societies and individuals. This document shows a clear profit over all costs of preparation and printing, besides supplying for our own use without cost 24,006 copies, 16,800 of which are now on hand. The medical society of one state where the danger of the passage of a health insurance law was great, purchased a total of 36,000 copies. In all, 120,000 copies were printed of this document.

Work is now under way on a popular pamphlet to be entitled, "What It Means to be a Doctor." It is believed that to combat cultism with mere opposition to its false claims is a weaker approach to influencing public opinion than to build up among the people an increased understanding of the skill and experience which the physician has to offer the public—what it means to be a doctor—presenting the facts in an interesting and persuasive narrative style which will engage and hold the attention of all classes of readers. The manuscript of this document will be written by Mr Dwight Anderson, Director of the Public Relations Bureau of the Society. The printed pamphlet will be available for distribution early in the fall of 1937.

Since our report was rendered, the director of the bureau has attended standing committee meetings of the society and two meetings of a special group engaged in informal discussions with members of the Committee on Medical Jurisprudence of the Association of the Bar, he has made three trips to Rochester in connection with preparations for the annual meeting of the Society.

Reprints of Dr Winslow's article "The Best Doctor" and examples of our current popular pneumonia publicity have been mailed to our entire list of names. The usual advance releases to newspapers have gone out in connection with the annual meeting of the Society.

(Referred to the Committee on Report of Committee on Medical Trends)

13 Supplementary Report of the Committee on Economics

Section 68

DR. FREDERIC E. ELLIOTT, *Kings*. At the March meeting of the Executive Committee we presented for their attention a magazine called "The New York Woman" in which there appeared an article entitled "Babies C O D"

The very obvious purpose to prejudice public opinion against the private practice of medicine is evidenced by the alleged fees which are being charged. This exhibit is for the Reference Committee, and I have not read it in its entirety other than one or two items "The Specialist's Fees, \$5,000," and so forth.

Page 31 of this same issue contains a second article complementary to the c. o. d. article, and this was entitled "Where to have a baby in New York," and there are listed some sixteen of our outstanding institutions with their bill-of-fare of prices, and in this article it is made evident that these institutions are offering flat-rate fees for hospital care, which includes the services of a doctor.

In a subsequent issue of this same magazine appears an article "The Luxury of Illness," in which we are informed of the inevitable trend toward the absorption of the medical care of the patient by a State Department, State doctors.

Under the instruction of the Executive Committee, the Economics Committee made an investigation as to the source of this material and we have first-hand knowledge that it was written by a staff writer of this magazine from material provided to them by the United Hospital Associates of New York, and supporting that is a communication on the letterhead of that organization signed by Mr Frank VanDyke, calling attention to these articles.

We then set out to obtain first-hand information. A questionnaire to each obstetrician listed in our state directory in the hospital section. We sent out 513 questionnaires. 192 physicians replied, representing 153 hospitals. It is interesting to observe that 190 hospitals are not represented on our study due to one of two things: the physicians who received these questionnaires were either indifferent to matters which seriously concern them or, as we know in some instances, were fearful of making a reply to an official committee of this society else it might bring down the displeasure of the hospital administrators on their heads.

I shall not read the tabulation of this study unless someone requests it. The significant fact borne out by these answers is that fifty per cent of the births in New York State hospitals were accomplished with no recompense whatsoever to those who were responsible for the maternity care.

We have pointed out the fact that in many of these replies the intern or resident is given a very wide latitude in judgment as to when staff members who are there only supervising their work shall be called in in the event of complication.

This Committee on Economics recognizes that it is not within our scope to consider this, but we suggest that a competent committee of the Society should give it consideration.

The answers to this questionnaire further bear testimony that much of the so-called flat-rate obstetric service might be well returned

to domiciliary care and would be returned to a source of support to the medical profession

The Committee on Economics feels that it will be of no avail to rail at the wrong in this situation nor to adopt any kind of a resolution. We feel that this challenge can only be met by the creation of a constructive program which will meet the challenge of the various groups interested because not only is this dolo of free care being permitted in this field and in others, but we feel in the interest of getting good medical care for all of the people, that this points again to the necessity of constituting ourselves such an organization that we may properly construct and advance a program which will provide good medical care to all the people with a reasonable and proper economic support for those who render that care.

THE SPEAKER Referred to the Reference Committee on Report of Committee on Economics

14 Supplementary report of Committee on Legislation

Section 69

DR. HOMER L. NELMS, *Albany* Your Legislative Committee begs leave to submit the following supplemental and final report covering our activities and recommendations for the current year

The Legislature convened on January 1 and adjourned on May 8. During this interval, approximately six thousand bills were introduced. It should be remembered that these bills are not earmarked, but it falls to the lot of Dr. Lawrence and your Committee to determine the ones that have medical or public health aspects. This done, we come to the larger responsibility of determining policy and legislative strategy

A careful survey shows that thirty-three bills were defeated which we considered detrimental to the best interests of the public and the profession. These included bills on compulsory health insurance, anti-vivisection, anti-vaccination, and the extension of osteopathic and physiotherapy practice, together with a host of other impractical proposals

Twelve of the constructive measures which received our approval have passed both Houses of the Legislature and, with one exception, are now awaiting the Governor's signature to make them law. These include provisions for the creation of a cancer commission and also a commission for the hard of hearing

Special mention should be made of Senate Bill Int. No. 838, introduced by Mr. Esquirol and known as the "Malpractice Bill," which was passed by both Houses but is not yet signed by the Governor. This bill will relieve physicians doing gratuitous work in municipally supported hospitals or sanatoriums from suits for malpractice, and in this State will have a

far-reaching effect. It is hoped that at a later time its provisions can be extended to cover all gratuitous work in charity clinics, whether municipally or privately owned

One of our greatest legislative needs is for a physicians' and surgeons' lien law for liability cases. The principle of the lien is well-established in law. The services of undertakers, lawyers, hospitals, and mechanics have all been recognized and protected by fairly effective lien laws. There is nothing in reason nor logic that should deny this same right and privilege to physicians, and, yet, for seven consecutive years the Legislature has denied us our inalienable rights under a lien law. Your Committee has made a special effort to analyze the causes back of these legislative failures. We have encountered the almost unanimous opposition of the legal profession and groups representing insurance carriers. In legislative chambers these interests are powerful. Your Committee has studied carefully all the objections offered to the various lien bills introduced through the years, together with the reactions of the Legislators to these proposals. In view of this experience, and realizing the urgent need of a physicians' and surgeons' lien bill, we make the following specific recommendation

That the Legislative Committee be authorized to negotiate and attempt to reach a mutual understanding with the proper and responsible officers of the State Bar Association, representatives of insurance carriers, and other interested groups in formulating a sound public policy, based on the principle of equal rights for all and having for its object the drafting of a physicians' and surgeons' lien bill to be presented at the next session of the State Legislature in 1938

After careful deliberation your Committee is of the unanimous opinion that this procedure is the shortest and best route to the early enactment of a lien law in this State

THE SPEAKER Referred to the Reference Committee on the Report of Committee on Legislation

15 Committee on Maternal Welfare

Section 41

DR. KOSMAK WHEREAS the constantly increasing interest in maternity by professional, lay and governmental agencies demands the cooperation of the organized medical profession in formulating plans and procedures,

Therefore be it resolved that a special committee of three members of the State Society be appointed by the incoming president each year, to be known as the Committee on Maternal Welfare to which shall be assigned the study and consideration of whatever activities are related to this field that may come within the province of the work of the State Society

THE SPEAKER Referred to Reference Committee (A)

Sam, M D" They were sent to the 23,000 names on the mailing list of important influential citizens which we have built during the course of the last year and a half, and which now represents a considerable financial investment. We were requested to supply to two other state societies copies of this reprint in quantity bearing the imprint of the other societies, these were furnished to the number of 9,000 and additional requests are expected.

In all, as of the date of this supplementary report, a total of 95,994 copies of the pamphlet "On the Witness Stand" have been sold to medical societies and individuals. This document shows a clear profit over all costs of preparation and printing, besides supplying for our own use without cost 24,006 copies, 16,800 of which are now on hand. The medical society of one state where the danger of the passage of a health insurance law was great, purchased a total of 36,000 copies. In all, 120,000 copies were printed of this document.

Work is now under way on a popular pamphlet to be entitled, "What It Means to be a Doctor." It is believed that to combat cultism with mere opposition to its false claims is a weaker approach to influencing public opinion than to build up among the people an increased understanding of the skill and experience which the physician has to offer the public—what it means to be a doctor—presenting the facts in an interesting and persuasive narrative style which will engage and hold the attention of all classes of readers. The manuscript of this document will be written by Mr. Dwight Anderson, Director of the Public Relations Bureau of the Society. The printed pamphlet will be available for distribution early in the fall of 1937.

Since our report was rendered, the director of the bureau has attended standing committee meetings of the society and two meetings of a special group engaged in informal discussions with members of the Committee on Medical Jurisprudence of the Association of the Bar, he has made three trips to Rochester in connection with preparations for the annual meeting of the Society.

Reprints of Dr. Winslow's article "The Best Doctor" and examples of our current popular pneumonia publicity have been mailed to our entire list of names. The usual advance releases to newspapers have gone out in connection with the annual meeting of the Society.

(Referred to the Committee on Report of Committee on Medical Trends)

13 Supplementary Report of the Committee on Economics

Section 68

DR. FREDERIC E. ELLIOTT, *Kings*. At the March meeting of the Executive Committee we presented for their attention a magazine called "The New York Woman" in which there appeared an article entitled "Babies C O D"

The very obvious purpose to prejudice public opinion against the private practice of medicine is evidenced by the alleged fees which are being charged. This exhibit is for the Reference Committee, and I have not read it in its entirety other than one or two items "The Specialist's Fees, \$5,000," and so forth.

Page 31 of this same issue contains a second article complementary to the c. o. d. article, and this was entitled "Where to have a baby in New York," and there are listed some sixteen of our outstanding institutions with their bill-of-fare of prices, and in this article it is made evident that these institutions are offering flat-rate fees for hospital care, which includes the services of a doctor.

In a subsequent issue of this same magazine appears an article "The Luxury of Illness," in which we are informed of the inevitable trend toward the absorption of the medical care of the patient by a State Department, State doctors.

Under the instruction of the Executive Committee, the Economics Committee made an investigation as to the source of this material and we have first-hand knowledge that it was written by a staff writer of this magazine from material provided to them by the United Hospital Associates of New York, and supporting that is a communication on the letterhead of that organization signed by Mr. Frank Van-Dyke, calling attention to these articles.

We then set out to obtain first-hand information. A questionnaire to each obstetrician listed in our state directory in the hospital section. We sent out 513 questionnaires. 192 physicians replied, representing 153 hospitals. It is interesting to observe that 190 hospitals are not represented on our study due to one of two things: the physicians who received these questionnaires were either indifferent to matters which seriously concern them or, as we know in some instances, were fearful of making a reply to an official committee of this society else it might bring down the displeasure of the hospital administrators on their heads.

I shall not read the tabulation of this study unless someone requests it. The significant fact borne out by these answers is that fifty per cent of the births in New York State hospitals were accomplished with no recompense whatsoever to those who were responsible for the maternity care.

We have pointed out the fact that in many of these replies the intern or resident is given a very wide latitude in judgment as to when staff members who are there only supervising their work shall be called in in the event of complication.

This Committee on Economics recognizes that it is not within our scope to consider this, but we suggest that a competent committee of the Society should give it consideration.

The answers to this questionnaire further bear testimony that much of the so-called flat-rate obstetric service might be well returned

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21 Dismissal of Hospital Physicians Without Hearing

Section 55

DR. SIMON FRUCHT, *Kings* WHEREAS, physicians serve on hospital staffs of municipal and voluntary institutions for long years without compensation, and,

WHEREAS, these physicians oftentimes, after many years of faithful and diligent service are summarily dismissed without being granted a hearing by the Board of Directors of these institutions,

Be It Resolved, that the House of Delegates of the Medical Society of the State of New York go on record as opposed to any such dismissal on the part of the directors and boards of these institutions without a hearing

THE SPEAKER Referred to Reference Committee B

22 Recommending a Penalty for Delayed Payment of Compensation Medical Claims

Section 45

FROM WESTCHESTER COUNTY SOCIETY, WHEREAS, the 'Minimum Medical Fee Schedule for Medical treatment and care of injured employees,' as established by the State Industrial Commissioner under the Compensation Law, applying to the "Metropolitan Area," provides under line 23 that a discount of 5% may be deducted from all medical bills in amounts of \$1500 or more if paid within 30 days of receipt by the insurance carrier, and

WHEREAS, the expressed purpose of this provision is "to facilitate prompt payment of medical bills", and

WHEREAS, certain insurance carriers permit many of their uncontroverted claims to remain unpaid many months after the discount period despite the provision of Section 15-g, paragraph (1) of the Workmen's Compensation Law which states that "Unless within thirty days after a bill has been rendered to the employer such employer demands an impartial examination of the fairness of the amount claimed the amount claimed shall be deemed to be the fair value of the services rendered" and

WHEREAS, it is deemed both desirable and fair that the 5% discount for early payment should be balanced by a reasonable penalty for delayed payment, therefore

Be It Resolved, by the Medical Society of the County of Westchester, that the House of Delegates of the Medical Society of the State of New York be urged to memorialize the State Industrial Commissioner to the effect of this resolution and to request, in the name of the State Medical Society the line 23 of the "Minimum Medical Fee Schedule" be amended to provide that when compensation claim is

can Medical Association, the Radiological Society of North America, the American Roentgen Ray Society, the American College of Radiology, the American College of Surgery, the American College of Physicians, and, locally, the New York Academy of Medicine, as well as all hospitals operating throughout the country, and municipal hospitals, Federal agencies, Public Health Service and the Army and Navy,

Be It Resolved, that the Medical Society of the State of New York adopt the necessary measures to the end that the practice of radiology, comprising the practice of diagnostic and therapeutic roentgenology, including the use of radium, be recognized as a special branch of medicine.

THE SPEAKER Referred to Reference Committee D

20 Regulating Child Labor

Section 43

DR. KRELL, *Bronx* 1 WHEREAS, the several states have coped unsuccessfully for over one hundred years with the problem of regulating child labor, and have so far failed to pass uniform laws affecting such regulations,

2 WHEREAS, child labor, by reason of its cheapness is a powerful weapon in the struggle for industrial markets and therefore its tolerance in one state jeopardizes such regulations as may exist in another,

3 WHEREAS, the experience of this country with three previous attempts by the Federal Government to regulate child labor has proven the feasibility of such legislation as well as its effectiveness and unquestioned superiority over the efforts of individual states, its lack of bureaucracy and interference with individual liberty,

4 WHEREAS, with the death of the N.R.A. and consequent frustration of the last national attempt to curb child labor, the return of that evil is ever more disturbing and menacing

5 WHEREAS, we as physicians are peculiarly fitted to estimate the hazards of industrial employment upon the health and development of growing children that by reason of this knowledge, we, as physicians, should be remiss in our duties as citizens if we stood aloof and failed to urge a measure which will affect the future health of our nation,

Be It Resolved that the New York State Medical Society go on record as favoring the adoption of the Child Labor Amendment to the Constitution of the United States

And *Be It Further Resolved*, that copies of this resolution be forwarded to the Governor and Chairmen of the Senate and Assembly Judiciary Committees

THE SPEAKER Referred to Reference Committee (A.)

16 Section on Orthopedic Surgery

Section 47

DR. MASTERSON, *Kings* WHEREAS in most of the medical schools in the State of New York there is an independent chair of orthopedic surgery, and

WHEREAS, at the New York Academy of Medicine there is an independent section on Orthopedic Surgery, and

WHEREAS, there is in the State of New York a very large number of surgeons limiting their practices exclusively to orthopedic surgery, and

WHEREAS, in all of the larger cities and in many of the smaller cities in our state orthopedic surgery is definitely recognized by the profession as an independent, well-established, specialty, and

WHEREAS, the orthopedic surgeons of the State of New York take a very active part in the programs of the Orthopedic Section of the American Medical Association, the American Orthopedic Association, the American Academy of Orthopedic Surgeons and in the American Board of Orthopedic Surgery, and

WHEREAS, the orthopedic surgeons of this State have in the past participated but to a minor extent in the scientific sessions at the Annual Meetings of the New York State Medical Society,

Therefore, be it resolved that the House of Delegates approve and authorize the formation of an independent section on Orthopedic Surgery in the Medical Society of the State of New York.

William Ward Plummer
Frank N Potts
Albert A Gartner
Edward T Wentworth
Joseph B L Episcopo
Jacques C Rushmore
Donald E McKenna
Herbert C Fett
Samuel Kleinberg
Arthur Krida
Alan D Smith
Mather Cleveland
Armitage Whitman
Lewis Clark Wagner
Joseph Beckman
L Gaston Papar

Buffalo
Buffalo
Buffalo
Rochester
Brooklyn
Brooklyn
Brooklyn
Brooklyn
New York City
New York City
New York City
New York City
New York City
New York City
New York City
Brooklyn
Brooklyn

THE SPEAKER Referred to Reference Committee C

17 In Memoriam—Daniel S Dougherty, M D

DR. WIGHTMAN WHEREAS, there has been removed through death, since the last meeting of this body our former esteemed and beloved secretary, Dr Daniel S Dougherty,

Be it resolved, that at this, the stated meeting of the Medical Society of the State of New York, we spread upon its minutes our tribute to Dr Dougherty

His long service was devoted to constructive thought and the strengthening of our organization He zealously and unselfishly carried on,

even with diminished strength and health, counting the welfare of the State Society above his personal good

We hereby record our testimonial and affection for his many years of devoted service.

THE SPEAKER Obviously this need not go to a reference committee.

THE SECRETARY I move that this be spread upon the minutes and a copy sent to the family (Motion seconded and carried)

18 State Medicine

Section 52

DR. KRELL, *Bronx* WHEREAS, the NEW YORK STATE JOURNAL OF MEDICINE in a leading editorial of May 15, 1937 acknowledges the existence of State Medicine in a limited form, and

WHEREAS, the same editorial ventures the prediction that the trend for state medicine, if left unguided, will, by a series of progressive encroachments, completely displace private practice, and

WHEREAS, it is the opinion of organized medicine, as expressed in the above-named editorial, that the medical profession should assume leadership in that movement with a view to obviating any injustice that might be suffered by the profession or by the public through precipitate action,

Therefore, be it resolved, that the Speaker of the House of Delegates be authorized and instructed to appoint a committee at this session for the immediate study of this question, and

Be it further resolved, that this committee shall report from time to time its findings in the STATE JOURNAL, and

Be it further resolved, that no definite recommendation of this committee shall be acted upon by the State Society without first submitting the question to a referendum of the entire membership of the State Society

THE SPEAKER I am willing to send this resolution to Reference Committee B, but with the understanding that I declare out of order the recommendation that the Speaker shall appoint any committee that has a continuing action, because that is contrary to our constitution and by-laws. Appointments to continuing committees reside in the president and not in the speaker. That being understood, the matter is referred to Reference Committee B

19 Radiology

Section 71

DR. KOVACS, *New York* WHEREAS, the practice of roentgenology, entailing the utilization of chemicals and armamentaria for the production of electro-magnetic waves for diagnostic and therapeutic purposes, is recognized as a special branch of medicine by the Ameri-

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profession is ready to aid them in health as well as in disease,

(Inform the Public)

Therefore, *Be It Resolved*, (1) That each physician and every association of organized medicine be called upon to renew their efforts to inform the public of the need for personal preventive medicine and the benefits that may be derived therefrom

(Aid the physician)

Be It Resolved, that (2) the medical profession take energetic steps to assemble the whole resources of the medical and social sciences in personal preventive medicine and to place them at the disposal of the family physician, thus to strengthen him anew in understanding and helpful aid in the problems of life and living, and personal prevention of illness

(Physician's Service is Basic)

Be It Further Resolved that, each physician and every association of organized medicine be called upon to seek ways to give service to all worthy welfare, social and educational organizations, which may be of aid in personal preventive medicine, especially in making his basic health examination reports available (with discretion) for use in school, camp, settlement athletics and other kindred fields where, under socialized conditions, health examinations are now being conducted under conditions less advantageous than in the office of the family physician.

(Uninterrupted Service through life)

Be It Further Resolved, that all physicians and every association of organized medicine be called upon for medical guidance and health promotion throughout the lives of the individuals and families under their care. This will provide a continuing medical service and a continuing medical record, to the end that every one may be better served in his own lifetime and future generations may profit by the accumulation of the scientific record of whole lives

THE SPEAKER Referred to Reference Committee B

26 Socialized Medicine

Section 46

DR. FISCHOFF, *Kings* WHEREAS, the remarkable progress and achievements of modern scientific medicine and modern medical education make possible medical facilities and personnel sufficient and competent to provide adequate care in health, illness and disability for all our people, and

WHEREAS, despite this medical science, facilities and personnel, millions of the people still receive inadequate medical care, and frequently no such care at all, while, at the same time, tens of thousands of our doctors and associated

workers are insufficiently employed in their calling and insufficiently remunerated for the professional services rendered by them, and

WHEREAS, the fundamental cause of this public and professional state of affairs is caused by the inability of most of our people to purchase adequate or any medical care for themselves, and primarily due to the private individual or institutional method of rendering medical care on a commodity or fee-for-service basis, and

WHEREAS, the people's health is essentially the people's concern, not less important than education, property protection, or any other public service, and therefore fundamentally is a social or state interest and obligation, no longer to be left to the economic and medical uncertainties of our mercantile methods of securing or providing medical care, with all the evils that necessarily follow therefrom,

Be It Therefore Resolved by this House of Delegates that we approve the reorganization of medical care and practice so as to provide all the medical care needed by our people, and so as to realize in full the true functions and purposes of medical science and art, at the same time assuring to the medical profession and the allied workers concerned in medical care with economic security and adequate conditions needed for the proper pursuit of their professions and

Be It Further Resolved that we endorse the following plan as a suggestive basis for such medical reorganization and for appropriate legislation

Program

1 Adequate medical care of the sick and injured as a social function right and duty, and not as a private or public charity Curative as well as preventive means, measures and agencies to be included

2 A socialized system of medical care in health, illness and injury free of fees

(a) Under the auspices and with the subsidy of the state

(b) Financed by taxation, similar to the public educational system or other governmental functions

(c) Operated and regulated by the organized medical and allied professions, the medical and dental colleges, and the officials of existing public health agencies

(d) This system to include all dental, pharmaceutical nursing and allied services, and personnel

3 All hospitals clinics laboratories, pharmacies, etc to be publicly owned and operated institutions accessible to the sick free of charge The hospitals and clinics to be the medical centers for ward and ambulatory cases, and to be properly organized coordinated, and geographically distributed. House sick calls to be received at these centers and to be assigned to local or neighborhood physicians designated to cover specific local territories

neither paid with discount nor controverted within 30 days, a cumulative penalty of 1% per month shall be added to the face amount of the claim as rendered until full settlement has been made

THE SPEAKER Referred to Reference Committee (C)

23 Employment of salaried physicians on contract by municipalities for medical service to home relief clients

Section 74

FROM WESTCHESTER COUNTY SOCIETY

WHEREAS, there is a strong tendency among public officials and welfare officers to favor the employment of physicians on salary to render medical service to welfare clients rather than to permit the patient to be attended by the physician of his choice with payment of the physician on a fee-for-service basis, and

WHEREAS, this manner of providing medical relief makes medical service for the poor a distinctly separate type of service from that available for those who are self-sustaining, constituting an intolerable discrimination against the unfortunate poor and denying them their elementary American right to choose their own medical attendants, and

WHEREAS, such economies as may be claimed to result from such a contract system of medical relief are made possible only by exploitation of the physicians in a manner that must inevitably produce a sub-standard quality of service, and

WHEREAS, physicians serving under such contract systems are clearly violating the Principle of Medical Ethics of the American Medical Association which forbid contracts where "free choice of a physician is prevented", where "compensation is inadequate to assure good medical service", or where "there is interference with reasonable competition in a community", now,

Therefore, *Be It Resolved*, that the Medical Society of the County of Westchester does hereby recommend that the Medical Society of the State of New York condemn the employment by municipalities of physicians on salary to attend home relief clients, and that the State Society sponsor legislation to amend section 84 of the Public Welfare Law in such a way as to require that medical relief be furnished by the physician of choice and compensated on a fee-for-service basis and to delete the present section enabling medical relief service by contract, and

Be It Further Resolved, that the Medical Society of the State of New York sponsor such legislation as may be necessary to establish control over the medical aspects of medical relief service in the same way as the medical aspects of Workmen's Compensation Service are controlled

THE SPEAKER Referred to Reference Committee D

24 Recommending a memorial to the American Medical Association urging a New Policy for Medical Publicity

Section 75

FROM WESTCHESTER COUNTY SOCIETY

WHEREAS, proponents of compulsory health insurance are making every effort to create a public demand for its establishment in the United States, and

WHEREAS, the general public throughout the United States is almost completely uninformed regarding the financial costs of such an experiment, the inevitable effects of such legislation upon the quality of medical care, and the psychological and technical obstacles which almost certainly would render compulsory health insurance deleterious to health and unsound as insurance, and

WHEREAS, the facts concerning the economic and psychological foundations of quality in medical practice and a realization of the vital public interest in the preservation of these foundations must be widely publicized to the laity, therefore

Be It Resolved, that the Medical Society of the County of Westchester does hereby memorialize the Medical Society of the State of New York, recommending that it in turn immediately and urgently memorialize the American Medical Association, recommending that the American Medical Association establish a Department of Public Relations whose function it shall be to engage the most expert and talented professional public relations counsel available, this Department of Public Relations to be equipped at once with adequate financial resources to carry on a permanent campaign of publicity and advertising through the most obvious media reaching the masses of public opinion and setting forth dramatically and accurately, the story of medical progress in the United States, revealing and explaining the foundations of future progress and creating an informed public will to preserve those foundations, and

Be It Further Resolved, that this resolution be introduced in the House of Delegates of the Medical Society of the State of New York at the meeting of the House, May 24, 1937

THE SPEAKER Referred to Reference Committee A

25 Preventive Medicine

Section 53

Resolution presented by the Medical Society of New York County

(Personal Preventive Medicine)

WHEREAS, many lives are lost and many persons suffer needless illness, because the public does not sufficiently understand that the medical

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WHEREAS, there is no justification, social, ethical or professional, for this economic discrimination against the physicians who constitute a most important part of such personnel,

Be It Therefore Resolved, by this House of Delegates that it hereby record itself in favor of compensation for all medical services rendered in all medical institutions of the State of New York, whether public or voluntary, and the officers of this society make every effort to support the movement to make pay for professional work a legal and practical reality

THE SECRETARY In the Executive Committee's report, before its proper reference committee, is a definite suggestion toward the same end.

THE SPEAKER I am willing to refer this communication to the Committee of Reference acting on the Executive Committee's Report. This is not a resolution which could ordinarily be accepted here.

Referred to Reference Committee A.

29 Opposition to enactment of compulsory health insurance law

THE SECRETARY This resolution was accompanied by a letter stating "By the action of the Society, our delegates were instructed to present this resolution", this is from the Medical Society of the County of Albany

WHEREAS, The Medical Society of the State of New York has always opposed the enactment of any compulsory health insurance law, and

WHEREAS it is a recognized fact that most States or countries having compulsory health insurance began by promoting voluntary insurance or indemnity schemes, and

WHEREAS, there has been a bill before the Legislature providing legislation that would enable the creation of medical indemnity insurance organizations,

Be It Therefore Resolved, that the Medical Society of the State of New York maintain its position of opposition to all schemes of this character unless a decision to the contrary is reached in the House of Delegates' meeting either in regular or special session.

THE SPEAKER Referred to Reference Committee B

30 Automobile License Plates

Section 76

DR. VICKERS, *Washington* WHEREAS, it is the policy of the Motor Vehicle Department of the State of New York to issue distinctive license plates to members of various fraternal, social and civic groups, as may be noted by the numerous plates seen with different combina-

tions of letters before the numbers, as ST-, AL-, QS-, AY-, and others, and

WHEREAS, there are registered, as members of the Medical Society of the State of New York, the total of 14,194 physicians for the year 1936

Therefore, Be It Resolved, that the Medical Society of the State of New York petition the Motor Vehicle Department of the State of New York to issue special and distinctive license plates to physicians in good standing and registered with the Medical Society of the State of New York, these plates to bear the letters "MD", or "DR", followed by the proper numbers, and

Be It Further Resolved, that no more than one set of license plates bearing these letters shall be issued to one physician and that for use on his professional car, and

Be It Further Resolved, that the application for special plates shall be approved by the Secretary of the County Medical Society of which the applicant is a member

THE SPEAKER Referred to Reference Committee D

31 Establishment of a Section on Pathology

Section 60

THE SPEAKER The following resolution was presented by the Special Committee on Clinical and Pathological Laboratories, and approved by the Committee Minora, April 12, 1937

It is recommended that the Medical Society of the County of New York instruct its delegates to support the resolution for the establishment of a section on pathology of the Medical Society of the State of New York.

THE SPEAKER This will be referred to the Committee on Council Report. We will now declare a recess The House will reconvene at 2 P M

AFTERNOON SESSION

The meeting was called to order by the Speaker at 2 P M

32 National Public Health Policy

Section 38

THE SPEAKER The chair recognizes Dr Booth For your information gentlemen, this is a special committee appointed by President Winslow to make certain recommendations The Committee has met a number of times and Dr Booth as chairman of the Committee, is again reporting

Dr Booth *Elmira* The Special Committee appointed by President Winslow to consider Provision of Medical Care begs to submit the following report

4 All equipment, supplies, laboratory, and other facilities of a medical, surgical, dental, pharmaceutical, nursing or other nature, to be furnished free by the state

5 All medical, dental, pharmaceutical, nursing and allied education to be furnished free by the state.

6 All duly licensed or registered physicians, dentists, druggists, nurses, etc., to be legally entitled to practice under the system as full time practitioners or workers

(a) Subject to established rules and regulations of admission and practice.

(b) Proper safeguards of their rights and privileges under the system and the law

(c) With representation and a voice in the operation of the system

7 Compensation to be adequate and on a salaried basis

(a) Graded according to time of graduation, length of service in the system, rank held, and type of work.

(b) Salary increases and promotion to higher ranks to be based on similar considerations and to be automatically enforced

(c) Pensions, sickness, old age and other disability and social insurance to be included and applied

8 Hours of work to be assigned and regulated and scheduled so as to provide

(a) Adequate medical care for the sick and injured at all times

(b) Adequate time and opportunity for the physicians and allied workers for rest, recreation, vacations, and further professional study—with pay

9 Organized cooperative groups and group methods to be employed under the system wherever possible. Special provisions to be made for rural and other territories inaccessible to regularly organized medical centers

10 Individual private medical practice permissible under the same conditions and regulations as in private education, plus existing licenses and requirements by the state.

THE SPEAKER Referred to Reference Committee C

27 Plans for Medical Care

Section 48

DR. DAVIDSON, *Kings* WHEREAS, in the past ten years, repeated investigations have been made in this country of medical conditions, of methods of providing medical care to our people, and of methods of medical practice, to wit the investigations and reports of the Committee on the Costs of Medical Care, the 1931 Report of the Special Health Commission of New York State, the Legislative Investigation of California, the joint investigation of the Michigan State Medical Society and the Legislature of the State of Michigan, the latest New York Hospital Survey, the Report of the studies

on American Medicine made by the American Foundation for Studies in Government, and

WHEREAS, all these investigations and reports, as well as other similar studies, regardless of their differences in objectives and methods of approach and in their conclusions and recommendations, have definitely agreed on the inadequacy of medical care provided, both in quantity and quality, and have definitely indicated the urgent need for some sort of change in our present medical system, and

WHEREAS, these reports have also disclosed the highly unsatisfactory economic status of a large proportion of the professions engaged in the medical and allied services, and equally unsatisfactory professional conditions which menace these professions and which in turn react on the medical care which our people need and expect, and

WHEREAS, organized medicine of New York State has to date not been able to advance any satisfactory plan for the solution of this medical problem, so serious to both the people and the professions alike,

Be It Therefore Resolved by this House of Delegates that the president of this Society shall appoint a special committee, broadly representative of the various trends and schools of thought on this supreme medical problem, to study and report upon these various investigations and reports aforementioned, and to invite and hear the expression of opinion of all groups interested in these problems, and to give a full report on a complete and accurate study of the three definite proposals before the public and the profession for the approach to, or the solution of the medical situation, to wit voluntary group and insurance plans, compulsory health insurance, and public medicine—all this with a view to the development of a sound plan of making proper medical care available to the people of this state.

THE SPEAKER This is not a resolution presented by Kings County. It is a resolution presented by the gentleman who so eloquently spoke just now. I will refer it to Reference Committee C.

28 Compensation for Professional Services

Section 42

DR. DAVIDSON, *Kings* WHEREAS, the burden of medical charity has grown to proportions far beyond the ability of the medical profession to carry it any longer, and

WHEREAS, this burden of medical charity is the proper concern of the whole community and government, local and state, and not alone of any particular class or professional group, and

WHEREAS, the entire personnel involved in the administration and service of medical charity is, and has always been, compensated for their services, with the only exception of the medical professional staffs, and

specific field. The nominations of these "experts" should be by units of organized medicine. The nominations and recommendations by organized medicine should be given preferential consideration by Government in making its selection."

8 That the adequate administration and supervision of the health functions of the Government, as implied in the above Proposals, necessitate in our opinion a functional consolidation and all federal health and medical activities, under a separate department.

* * *

We, who subscribe to the above principles, proposals and recommendations held the view that compulsory health insurance does not offer a satisfactory solution on the basis of these principles and proposals and repeat our objections to its enactment in this country

Your Committee recommends the adoption by the House of Delegates of the above, and

Further recommends to the House of Delegates that it authorize the creation of a Committee to confer with Government Agencies and other organized medical groups so that differences in conception, definition of terms and applicability of principles and procedures may be ironed out in conference. This committee shall function for matters concerning the State of New York.

We further recommend that the House of Delegates of the American Medical Association be asked by our Delegates to create a similar committee to act nationally

Arthur W Booth *Chairman*
Edward E. Haley
Samuel J. Kopetzky
Thomas A. McGoldrick
Andrew Sloan
Edward T. Wentworth
Floyd S. Winslow (ex officio)
Peter Irving (ex-officio)

Elmira
Buffalo
New York
Brooklyn
Utica
Rochester
Rochester
New York

THE SPEAKER Referred to Reference Committee B

33 Report of Reference Committee on the Reports of the Treasurer and Trustees

Section 8

DR. TOWNSEND Your Reference Committee on the reports of the Treasurer and Trustees has reviewed in detail the report of the Treasurer and notes with gratification the increased income from membership dues of \$3,373, and the increase of approximately \$6,600 in income from investment, a total gain over 1935 of \$10,000 00

However, this prosperity is not without pain, since his report shows a loss of \$4,220 00 in defaulted bond coupons and probably a material loss on bonds whose par value was \$23,000 00. Furthermore, the reports show that \$33,000 00 of our funds rests in savings banks at a low interest rate and \$50,000 00 is invested in high-grade shares. These shares have increased

in value \$1,910 00 whilst our bond holdings have depreciated \$3,614 00 making us the poorer by \$1,700 00

We commend the treasurer in his cautious attitude until the trend of trust investments is more clearly marked

In his supplementary report the treasurer, calling attention to the small margin between income and expenditure, states as follows "One of the ways to solve the situation is to scale down on expenditures by whatever laudable efforts your officers and delegates may find it possible to employ. Another is to increase the Society's membership and the final and least desirable is to levy an additional assessment. The latter should only be regarded in the light of a final resort. Your Committee on Reference concurs in these opinions and suggestions

The Report of the Board of Trustees is worthy of careful reading by each member of the Society. It calls attention to (1) the increasing difficulties of investing and re-investing, (2) to the lowered rate of income from our funds, (3) to the increase of thirty per cent in expenditures as against but ten per cent increase in income during the past eight years, and (4) the necessity of all committees keeping within their budgetary allowance. The Trustees advise careful scrutiny of all actual or potential values which the Society receives or may receive for each dollar spent with which advice your Committee on Reference heartily concurs

The one recommendation offered by the Trustees has the hearty support of your Committee on Reference, to wit—that "The House of Delegates direct that the Society maintain its expenditures within its ordinary income exclusive of the principal or income from its investments and that this policy be not departed from except by resolution of the House either in regular or special meeting assembled or by reference vote"

I move the adoption of this report
(Motion seconded and carried)

34 Medical Assistance in the promotion and administration of the Motor Vehicle Laws

Section 44

THE SECRETARY The following is a resolution presented by the Genesee County Medical Society

WHEREAS there is annually reported an increase in automobile fatalities by the Department of Motor Vehicles, and

WHEREAS the physicians of the State are actively interested in preventing deaths from disease and injury,

Be It Therefore Resolved, that we take such steps as may be necessary or desirable to assist the proper state authorities, with medical assistance, in the promotion and administration of the Motor Vehicle Laws

Principles

1 That the health of the people is a direct concern of the Government, and a national health policy, directed toward all groups of the population, should be formulated.

"a. In the formulation of such policy the opinions and suggestions of organized medicine should be given preference."

"b We recommend in line with the above principle that the Medical Society of the State of New York appoint a group to formulate the principles and proposals for a State Health Policy, and we also recommend that the Medical Society of the State of New York urge the House of Delegates of the American Medical Association to create a group which shall formulate the principles and proposals of a National Health policy to be submitted to the Government."

2 That adequate medical care is an essential element of public health, and local, state and federal governments need to supplement present efforts of the medical profession in providing it.

"a. We recommend to the Medical Society of the State of New York that a Committee approved by the Council present a definition of the term "adequate medical care" for adoption by the House of Delegates, which shall be a "yard stick" in its use for all purposes connected with matters dealing with medical care, etc, henceforth"

"b That the House of Delegates of the Medical Society of the State of New York recommend to the House of Delegates of the American Medical Association the establishment of a working definition of the term "adequate medical care", suitable for the purpose of discussing national legislation and social legislation

3 That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.

Your Committee understands principle No 3 to imply the following

"That the problem of providing the individual with the means for securing medical care—that is the economic needs—and the problem of distributing medical services are not identical, that these problems of economic needs should be approached separately from those of distributing medical services to the people"

Proposals

1 That the first necessary steps toward the realization of the above principles is to minimize the risk of illness by increasing preventive efforts through extension of public health services, federal, state and local

"That the extension of federal, state and local preventive health measures is approved pro-

vided it meets the needs of a given situation in the opinion of the medical profession in the locality affected, and provided it integrates to the greatest possible extent the private practitioner of medicine in the development of preventive health service."

2 That an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (This is in line with the provisions of the Booth Report of 1933)

3 That public funds should be made available for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible

4 That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine

5 That public funds should be made available to hospitals that render service to the medically indigent and for laboratory diagnostic and consultative services

With the provision—

That these consultative and laboratory diagnostic services shall be established only in regions where the medical profession approves the need of same, and after consultation with the local medical profession in the area affected"

6 That in the allocation of public funds, existing private institutions should be utilized to the largest possible extent and receive support as long as their service is in accord with the above proposals

"a That so far as the allocation of funds is concerned for these institutions, they should not be on a pro rata population basis, but should be limited strictly by the needs of given institutions in specified localities, and the allocation should have the approval of the medical profession in the locality in which the institutions are located"

"b That in the section of existing institutions to which public funds may be allocated, their rating and their needs shall be measured by the standards of the Council of Medical Education and Hospitals of the American Medical Association and that no public funds should be made available to existing institutions against and contrary to the majority opinion of the medical profession in the locality in which they exist."

7 That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts

"a It is recommended that the various subdivisions of the American Medical Association, namely, its national state and county components furnish to the Government upon request lists of experts in their communities to carry out their principles and proposals"

"b We regard the word "expert" to mean a man especially qualified by experience in his

risk of illness by increasing preventative efforts through the extension of public health service, federal, state, and local.

And that the extension of federal, state, and local preventative health measures is approved provided it meets the needs of a given situation in the opinion of the medical profession in the locality affected.

And provided that it integrates towards the greatest possible extent the private practitioner of medicine in the development of preventative health service

And that in the allocation of funds for any purpose in any localities the approval of the local medical profession be required. The reference committee approves and emphasizes the principles that the problem of economic needs and the problem of providing medical care are not identical and should be approached separately.

Your reference committee endorses and approves the proposal that the adequate administration and supervision of the health functions of the government as implied in the report of the special committee necessitating functional consolidation of all federal health and medical activities under a separate department.

And that the head of such department should be a doctor of medicine having the approval of the medical profession of the United States

Your reference committee recommends that a committee be appointed by the president of the Medical Society of the State of New York to formulate the principles and problems for a state health policy

For the establishment of a working definition of the term "adequate medical care."

And for the purposes of conferring with the government agencies and other organized medical groups so that differences in conception of definition of terms and applicability of principles and procedures may be ironed out in conference. This committee shall function for needs concerning the State of New York.

It further recommends that the Medical Society of the State of New York urge the House of Delegates of the American Medical Association to create a group which shall formulate the principles and problems of a medical health policy to be submitted to the government.

And that the American Medical Association establish a working definition of the term "adequate medical care" suitable for the purposes of discussing medical and social legislation

I move the adoption of this report.

(Motion seconded and carried)

39 Report of the Reference Committee on the report of the Committee on Arrangements and on the report of the Committee on Scientific Work

Dr. HEYL Mr Speaker and members of the House of Delegates, gentlemen

Your Reference Committee on the report of the Committee on Arrangements and on the report of the Committee on Scientific Work, annually strives in the unique function of con-

densing for you that prophecy of the adverbs, what, where, and how. The scientific program, its location and manner of execution, are necessarily fulfilled in the potential and static state long before this body convenes. For a moment now these factors are fused in ascent expectancy, and in another moment they will be released in active fulfillment. Who now could or would wish to alter that which is in the process of transpiring?

The Committee on Arrangements proclaims the welcome of the Medical Society of the County of Monroe, the Rochester Academy of Medicine, and the City of Rochester. It has provided this Chamber of Commerce Building for all sessions and exhibits, has arranged for a public meeting at the Eastman Theatre through the courtesy of the University of Rochester, the program of which concerns "The Relation of Photography and Motion Pictures to the Science and Practice of Medicine", and as an added fourth day attraction, has planned play at golf for those interested, and for the others, relaxation in visits to the Research Laboratories of the University of Rochester Medical School, or the manufacturing plants creating scientific instruments and other interesting or valuable products

The Committee on Arrangements has not forgotten the ladies and has depended on the Ladies Entertainment Committee to provide hospitality and pleasure appropriate for them. Through the Banquet Committee they will endeavor in this building on Tuesday evening to nourish our minds and bodies with instruction, food, and entertainment.

The Hotel Committee "stands ready to give assistance to those who are not able to secure adequate accommodations." They "promise to leave nothing undone that will contribute to the enjoyment of their guests." The Chairman of this Committee on Arrangements, Dr. Leo F. Simpson, most concisely summarizes his report in these words: "We know that the State Society commands your loyalty, the scientific program and exhibits will deserve your attention, and certainly the Fourth Day of relaxation will bring joy to the hearts of all who participate."

Dr. William A. Groat, Chairman of the Committee on Scientific Work, comments on the unusual merit and balanced character of the various section subjects for presentation, commends the Committee on Arrangements for their centralization of all activities, states why, on account of limited space, the scientific exhibit is being largely provided by the University of Rochester School of Medicine and Dentistry, pays tribute to Dr. Clarence V. Costello, in charge of all scientific exhibits, and to Dr. John Henderson of the Advisory Committee on Exhibits for his able and detailed assistance relative to the Motion Picture display. Dr. Groat also acknowledges the work of Dean George H. Whipple for the symposium on "The Blood" and the help of Dr. Byron Stookey in arranging the symposium on "The Relief of Intractable Pain."

THE SPEAKER Referred to Reference Committee A

35 Greetings from New York State Hospital Assn

THE SECRETARY We have a letter from the Hospital Association of New York State transmitting a copy of a resolution unanimously adopted at the 13th Annual Convention of the Hospital Association of New York State

The resolution is as follows

WHEREAS, Dr Floyd Winslow, as president of the Medical Society of the State of New York, together with his Public Relations Committee has met with the Public Relations Committee of the Hospital Association of New York State on various occasions during the past year to consider hospital-physician relationships and in such meetings, as well as through other contacts has evidenced an extremely cooperative and understanding approach to these matters resulting in great progress toward the promotion of better relationship between the two groups,

Be It Resolved, that the Hospital Association of New York State in annual meeting assembled extend to Dr Winslow and his committee members, our greetings and sincere thanks while at the same time expressing the hope that this splendid work, so ably begun, be continued with unabated interest and endeavor through the coming years

THE SPEAKER No action is necessary It is a matter of record.

36 Applications for retirement

DR. BEDELL The names have already been printed. I move that the retirements be granted

THE SPEAKER The names have already been published The motion is before you

(The motion was lost)

On a further motion, seconded and carried, the following names of the applicants were read

William S Applegate
Charles H Auel
Silas J Banker
Herbert L Barker
Solomon S Barnett
Ray Beardsley
Herbert Beck
Anne W Bloomer
Reed B Bontecou
Nelson Borst
Mark N Brooks
Edward Broquet
Charles E Clark
Joseph Collins
Anna C de la Motte
Myron P Denton
Robert L Dickinson
Edward M Dooley
Horace D Dow
Martin Downey

Parsippany, N J
Buffalo
Fort Edward
Woodside
New York
Binghamton
New York
New York
Clifton Springs
Poughkeepsie
Springville
Bronx
Hewlett
New York
Brooklyn
New York
New York
Buffalo
Maspeh
New York

Ellsworth Eliot, Jr
Wilber G Fish
Andrew J Fox
Herman C Frauenthal
John Guttman
Dudley M Hall
Hickson F Hart
Frank J Hitchcock
William N Hubbard
George H Jenkins
Samuel C Jones
Heinrich Leonhardt
John Leuchs
Edward J Lorenze
Cornelius F McCarthy
Joseph W McCreedy
Dennis J McDonald
David H Mackie
William J Malcolm
Morris Manges
Thomas Manning
John G Meidenbauer
William Mottrier, Sr
Samuel Pashley
Lewis W Pearson
James Pederson
George M Price
C Nelson Raymond
George E Reed
Victor A Robertson
De Witt C Rodenhurst
Arthur G Root
Robert S Royce
John R Shannon
William Steffens
Benjamin W Steifel
William Stubenbord
Frank W Sweetland
Arthur H Terry
Anna H Voorhis
Siegfried Wachsmann
Bertis R Wakeman
Charles L Weiber
Henry T Williams
Carl Wurm, Sr
New York
Ithaca
New Canaan, Conn
New York
New York
Glens Falls
Peekskill
Binghamton
New York
Binghamton
Rochester
North Tonawanda
Brooklyn
New York
Auburn
New York
New York
New York
Jericho
New York
New Rochelle
Buffalo
Brooklyn
Hudson Falls
Brooklyn
New York
Syracuse
New Rochelle
Brooklyn
Brooklyn
Philadelphia, N Y
Albany
Brooklyn
New York
New York
New York
New York
Angola
Pachogue
Yonkers
White Plains
Hornell
Mt Vernon
Rochester
Pleasantville

DR. BEDELL I move that the request be granted.

(Motion seconded and carried)

37 Revision of Constitution and By-Laws

Secretarial Notice Minutes of action by the House of Delegates on amendments submitted by the Committee on Revision of the Constitution and By-Laws will appear in the next issue of the NEW YORK STATE JOURNAL OF MEDICINE (July 15) as Section 37 of the minutes

PETER IRVING, Secretary

38 Report of Reference Committee B on report of Special Committee to consider provision of Medical Care

Section 32

DR. MCGOLDRICK Your Reference Committee endorses the report of the special committee to consider the provision of medical care. The principles and proposals therein laid down should afford a good working basis towards the accomplishments in mind. Your reference committee will especially emphasize the proposal that the first necessary step towards the realization of the principles given is to minimize the

to the community, your committee recommends that at the time of discharge of such a patient it be made mandatory for state institutions to forward a report to the family physician, or the committing examiners

I move the adoption of this recommendation
(Motion seconded and carried)

Regarding the proposed revision of rules of the State Welfare Governing Dispensaries, your committee feels that in view of the fact that corrective legislation has been unsuccessful during the past year, and in view of the fact that there are matters still under consideration, no action can be taken at this time, but this committee recommends that further study and continued efforts be made through the proper channels to institute fair and just legislation to correct dispensary abuses

I move the adoption of this recommendation
(Motion seconded and carried.)

With reference to the deaf and hard-of-hearing, your committee commends the work that has been done during the past year for these cases, and recommends continued effort in this direction.

I move the adoption of this recommendation.
(Motion seconded and carried.)

With regard to motor vehicle accidents In view of the splendid work which is being done by the National Safety Council under the presidency of Dr Cassius Watson, a member of the State Society and Chairman of the Section on Industrial Medicine and Surgery, your committee recommends that the wisdom included in the comments and observations of the Public Relations Committee be transmitted to the National Safety Council

I move the adoption of this recommendation
(Motion seconded and carried.)

Legislation to care for cancer patients The report of the Committee on Public Relations is informative in character, and your committee approves the suggestion that a commission be appointed to supervise the carrying out of the necessary details

In conclusion your committee wishes to commend to the House of Delegates the memorial to Dr Luther Warren as published in the report of the Committee on Public Relations

In Memoriam

The Public Relations Committee of the Medical Society of the State of New York wishes to express its profound sympathy on the death of Dr Luther Fiske Warren who died in Brooklyn January 18, 1937 Dr Warren was the immediate past chairman of the Public Relations Committee, and gave unsparingly of his time and talents to further better relations between the Medical Society and other organizations working in the field of preventive and curative medicine. A former president of the Medical Society of Kings County, he was physician-in-chief of the Long Island College Hospital and St. John's Hospital, medical direc-

tor of the Brooklyn Home for Consumptives, and consulting physician at Methodist Episcopal Hospital, and Lutheran Hospital, Harbor Hospital, Brunswick General Hospital, and Coney Island Hospital He was professor of Medicine at Long Island College of Medicine and chairman of the Board of Medical Examiners of the Regents of New York State He was intensely devoted to his work and his family He was a great man not only in his professional career as a physician, but in all the activities of his busy and useful life. By those who knew him best through years of intimate association, he was classed as a man of extraordinary brain power and strength of character His death is a great loss to his family, to the city in which he lived, to the institutions he served so faithfully, and to the Medical Society of the State of New York.

I move you the adoption of this report as a whole, as amended

(Motion seconded and carried)

41 Report of Reference Committee on New Business A, on Resolution of Committee on Maternal Welfare

Section 15

DR. CUNNIFFE Resolution introduced by the House of Delegates by Dr George W Kosmak.

"Therefore, Be It Resolved that a special committee of three members of the State Society be appointed by the incoming president each year, to be known as the Committee on Maternal Welfare, to which shall be assigned the study and consideration of whatever activities are related to this field that may come within the province of the work of the State Society"

This reference committee approves the purpose of the resolution as offered by Dr Kosmak, but feels that this work is part of the general health program, and that the work should be done in conjunction with the activities of the Committee on Public Health and Education.

We therefore, offer as a substitute resolution, the appointment of a special committee by the president, consisting of three members of the State Society, who shall formulate plans and procedures and study all activities which are related in the advancement of maternal welfare, and shall report their findings to the Committee on Public Health and Education, who in turn shall report to the House of Delegates at the next annual meeting of the New York State Medical Society

Your Committee moves the adoption of this report

THE SPEAKER The Reference Committee presents a substitute before you and moves its adoption

(Motion seconded and carried)

THE SPEAKER The substitute resolution is carried and the original resolutions are not

The Committee on Scientific Work particularly acknowledges its indebtedness to the "President of the Society, Dr Floyd S Winslow, for his invaluable assistance and remarkable ability to pour out the resources of his home City toward the making of a grand meeting." This Committee, remaining true to its scientific function, avoided even the mention of golf when it related the Fourth Day recreational program.

Mr Speaker, this Reference Committee has read the program, has visualized the sight of its enactment and realizes the intricacy and immensity of the work of these Committees in behalf of the Members of the Medical Society of the State of New York.

I, therefore, move the adoption of the foregoing report.

(Motion seconded and carried.)

40 Report of the Reference Committee on the report of the Committee on Public Relations

DR HAMMOND The Reference Committee on the report of the Committee on Public Relations has made a careful examination of the Committee's Report, and wishes to congratulate them for the constructive work which they have accomplished during the past year.

Relative to the report on the care of children with defective eyesight, your Reference Committee states that this matter has been under consideration for the past two years. You will note that the Committee on Public Relations has again recommended that where diseased conditions exist they are a matter for the medical specialist, and that a change in the law is advisable by an amendment whereby any child whose central visual acuity cannot be corrected better than 20-30 by lenses should be referred to a duly licensed physician for examination and treatment.

Inasmuch as this committee feels that this subject is highly controversial, even in the field of ophthalmology, it is recommended that a competent committee of ophthalmologists be appointed to study this question and report back at the next meeting of the society.

I move the adoption of this recommendation.

(Motion seconded and carried.)

With respect to the formation of community health relations councils, inasmuch as many of the public health relations councils are being controlled by laymen, your committee is heartily in accord with the committee's opinion and we recommend that the governing element of these agencies should take its source from the local County Medical Society.

I move the adoption of this recommendation.

(Motion seconded and carried.)

In regard to the joint meeting of legal and medical professions, your Committee recommends that each County Society arrange for one meeting a year with the members of the legal profession of that county and we urge the adoption of this recommendation.

A study of the relationship between the Grievance Committee, Legal Department of the State Medical Society, and the Public Relations Committee reveals that the most fertile field for the instigation of malpractice suits is the careless and inadvertent remarks which are made by members of the medical profession. Your committee recommends that this conclusion be brought to the attention of every member of this Society.

I move the adoption of this recommendation.

(Motion seconded and carried.)

Concerning the examination of school children, your Committee feels that whenever possible the physical examination of school children should be made by the family physician, but in those instances where a full-time school physician is employed to make such examination, we recommend that a closer cooperation be urged between the school physician and the family physician.

Your Committee also suggests that the family physician shows an equal enthusiasm in this examination as does the school physician.

I move the adoption of this recommendation.

(Motion seconded and carried.)

Regarding hospital interns, it is obvious to this House of Delegates that the leaders in medical education throughout this nation are making an efficient and effective effort through our medical schools to curtail the overproduction of physicians.

The entire purpose of this effort is being nullified by foreign physicians driven to America as a haven of refuge and by our own citizens, who are denied medical education here under the quota, and who rush to foreign shores for their degree. Eight hundred and forty-three (843) foreign physicians were licensed in New York State in the past five years.

Your Committee recommends in view of these well-known and well-established facts that the House of Delegates petition the Board of Regents of the New York Education Department to use every power within their means to correct this unwholesome and unjust state of affairs.

I move the adoption of this recommendation.

(Motion seconded and carried.)

With respect to the Physically Handicapped Children's Act, your committee recommends that no action is called for as the matter is still under consideration.

Concerning the licenses for psychologists, your committee approves the action of the Committee on Public Relations in not recommending this bill.

Relative to the report on patients in state institutions, your committee recommends that the state institutions maintain a closer relationship with the practicing physician.

In the light of the publicity that has been given to the menace of discharged patients, unfortunately paroled from mental and tubercular institutions, and in order to insure better care of those patients, and a greater protection

graph (1) of the Workmen's Compensation Law which states that 'Unless within thirty days after a bill has been rendered to the employer such employer demands an impartial examination of the fairness of the amount claimed the amount claimed shall be deemed to be the fair value of the services rendered' and

"WHEREAS, it is deemed both desirable and fair that the five per cent discount for early payment should be balanced by a reasonable penalty for delayed payment,

"Therefore, Be It Resolved, by the Medical Society of the County of Westchester that the House of Delegates of the Medical Society of the State of New York be urged to memorialize the State Industrial Commissioner to the effect of this resolution and to request, in the name of the State Medical Society that line 23 of the 'Minimum Medical Fee Schedule' be amended to provide that when a compensation claim is neither paid with discount nor controverted within thirty days, a cumulative penalty of one per cent per month shall be added to the face amount of the claim as rendered until full settlement has been made.'

Your Reference Committee on New Business C has given careful study to the resolution adopted by the Medical Society of Westchester and submitted to the House of Delegates by the representatives of the County of Westchester. This resolution recommends a penalty for delayed payment of compensation medical claims

Your Reference Committee recommends the subject matter noted in the annual report of the Committee on Workmen's Compensation reading as follows

"In the metropolitan area the Industrial Commissioner has permitted a deduction of five per cent from all bills of \$15.00 and over if paid within thirty days. There has been widespread dissatisfaction with this provision. It is much too large a discount and has not had the effect of stimulating prompt payment generally, but has actually had the effect of causing numerous disputes between physicians and carriers and employers. This rule should be rescinded. Surely without a penalty for failure to pay bills within the same period it is unfair and does not accomplish its purpose. It is recommended that the Commissioner be urged to rescind or modify this item of the fee schedule by adding a penalty of five per cent for non-payment within thirty days, and certainly not include it in any schedule which he may promulgate for the entire state."

In view of the approval of the House of Delegates of the annual report of the Committee on Workmen's Compensation your reference committee recommends the approval of the resolution of the Medical Society of the County of Westchester to memorialize the Industrial Commissioner to accept these amendments and recommendations of the Workmen's Compensation Committee.

I move the adoption of the committee's report.

(Motion seconded and carried.)

46 Report of Reference Committee on New Business C on Resolution re "Socialized medicine"

Section 26

DR. HAMILTON Your Reference Committee on New Business C having given careful study and consideration to the resolution introduced by Dr Samuel Fischhoff of the County of Kings on socialized medicine, recommends to the House of Delegates the disapproval of this resolution

Dr Fischhoff, in discussing the purpose of this resolution, stated that the resolution does not call for health insurance but calls for state medicine with medical control it calls for quality medical care, a divorce of the business of medicine from the practice of medicine, that it takes into consideration the fact that most of our people are unable to purchase quality medical care, and quoted from the Bulletin "On the Witness Stand"

THE SPEAKER A report has been adopted which does take care of most of the questions that are raised in this resolution, without committing the State Society to a program of state medicine.

The question is now before you. The report of the Reference Committee is that the resolution be not adopted. The adoption of the Reference Committee's report carries with it that implication, and that is its mandate.

(Motion seconded and carried)

47 Report of Reference Committee on New Business C on resolution re Section on Orthopedic Surgery

Section 16

DR. HAMILTON Your Reference Committee on New Business C, having given due study and consideration to the resolution introduced by Dr John J. Masterson of the County of Kings at the request of the orthopedic surgeons of the State, recommend to the House of Delegates that a scientific section on orthopedic surgery be established by The Medical Society of the State of New York.

I move its adoption

(Motion seconded and carried)

48 Report of Reference Committee on New Business C on resolution re Plans for Medical Care

Section 27

DR. HAMILTON Your Reference Committee on New Business C has given careful study and consideration to the resolution on "Plans for Medical Care" introduced by Dr Benjamin Davidson of the County of Kings and recommends that the House of Delegates disapprove the request for a special committee contained in this resolution as well as other recommendations contained therein.

(Motion seconded and carried)

42 Report of Reference Committee on
New Business A on resolution re Com-
pensation for Professional Services

Section 28

DR. CUNNIFFE In re the resolution on compensation for professional services introduced by Dr Benjamin Davidson of Kings County

"*Be It Therefore Resolved* by this House of Delegates that it hereby record itself in favor of compensation for all medical services rendered in all medical institutions of the State of New York, whether public or voluntary, and the officers of this Society make every effort to support the movement to make pay for professional work a legal and practical reality"

The committee recognizes that there has been a gradual extension of public payments for medical services both in the state and city in the past, and under proper safeguards, the further extension of such payments may be desirable and should be encouraged

The resolution as offered, however, is disapproved, as it is too drastic, and its provisions would lead in the direction of state medicine.

I move the adoption of the recommendation of the Reference Committee.

(Motion seconded and carried)

43 Report of Reference Committee on
New Business A in re Child Labor
Amendment

Section 20

DR. CUNNIFFE Re the resolution offered by the Bronx County Society, the resolution being

"*Resolved* that the New York State Medical Society go on record as favoring the adoption of the Child Labor Amendment to the Constitution of the United States

"*And Be It Further Resolved* that copies of this resolution be forwarded to the Governor, and the Chairman of the Senate, and Assembly Judiciary Committee."

This Child Labor Amendment has been before the different state legislatures for sixteen years without obtaining a sufficient number of endorsements to become a part of the Constitution. The New York State Medical Society has several times during the last few years opposed the provisions of the proposed amendment. It was also defeated in the last session of the New York State Legislature

Since a recent decision of the United States Supreme Court upheld the law restraining the transportation of goods produced under child labor from one state to another, the necessity for this amendment has been practically removed. We are informed also that a substitute amendment is under consideration and the committee feels that it is unwise to recommend any action until the provisions of the new amendment is known.

I move the adoption of the report of the reference committee.

(Motion seconded and carried)

44 Report of Reference Committee A on
Medical Assistance in the promotion and
administration of the Motor Vehicle
Laws

Section 34

DR. CUNNIFFE Re Resolution of the Genesee County Medical Society "WHEREAS, there is annually reported an increase in automobile fatalities by the Department of Motor Vehicles, and

'WHEREAS, the physicians of the State are actively interested in preventing deaths from disease and injury,

"*Be It Therefore Resolved*, that we take such steps as may be necessary or desirable to assist the proper state authorities, with medical assistance, in the promotion and administration of the Motor Vehicle Laws"

The Committee heartily endorses the purposes of this resolution and recommends that the Legislative Committee assist the proper state authorities, with medical assistance, in the promotion and administration of the Motor Vehicle Laws, and that the members of the New York State Medical Society do all in their power to promote the administration of these laws, and to decrease the fatalities caused by motor accidents

I move the adoption of the report of the reference committee.

(Motion seconded and carried)

45 Report of Reference Committee on
New Business C on resolution recom-
mending a penalty for delayed payment of
compensation medical claims

Section 22

DR. HAMILTON Re the resolution adopted by the Medical Society of the County of Westchester, May 18, 1937, for submission to the House of Delegates of the Medical Society of the State of New York

"WHEREAS, the Minimum Medical Fee Schedule for Medical Treatment and Care of Injured Employees, as established by the State Industrial Commissioner under the Compensation law, applying to the 'Metropolitan Area', provides under line 23 that a discount of 5% may be deducted from all medical bills in amounts of \$15 00 or more if paid within 30 days of receipt by the insurance carrier, and

"WHEREAS, the expressed purpose of this provision is "to facilitate prompt payment of medical bills" and

"WHEREAS, certain insurance carriers permit many of their uncontroverted claims to remain unpaid many months after the discount period despite the provision of Section 13-g, para-

refuse employers and self insurers preferential rates below the minimum fee schedule for medical services under the Workmen's Compensation Act.

I move its adoption

(Motion seconded and carried.)

The second recommendation is that Society go on record as approving the Esquirol Bill, Senate Int. 1962, introduced April 15, 1937 (An Act to amend the Workmen's Compensation Law with respect to compensation)

I move its adoption.

DR. BEDELL May we know what is in the bill, or the import of the bill?

DR. O'GORMAN The bill is in regard to medical services, in detail, to correct errors that have existed in the bill already in. The Workmen's Compensation Committee has presented the bill to the Executive Committee and it was introduced last year. We feel that the Workmen's Compensation Committee's effort in this matter should be restated and reaffirmed by the act of the delegates

THE SPEAKER The Esquirol bill was introduced at the request of our Legislative Committee after its provisions were approved by the Executive Committee, on a mandate from this House of Delegates in its previous session. This bill corrects abuses that still exist in the Workmen's Compensation Law. The bill was not passed. It died in committee. The reference committee having this matter in hand recommends to this House that the bill be reintroduced with the approval of this House of Delegates. That is the way I understand it.

DR. O'GORMAN I move the adoption of this recommendation

(Motion seconded and carried)

52 Report of Reference Committee B on Resolution on State Medicine

Section 18

DR. MCGOLDRICK In re resolution submitted by Bronx County

"WHEREAS, the NEW YORK STATE JOURNAL OF MEDICINE in a leading editorial of May 15, 1937, acknowledges the existence of State Medicine in a limited form, and

"WHEREAS the same editorial ventures the prediction that the trend for state medicine, if left unguided, will, by a series of progressive encroachments, completely displace private practice, and

"WHEREAS, it is the opinion of organized medicine, as expressed in the above named editorial, that the medical profession should assume leadership in that movement with a view to obviating any injustice that might be suffered by the profession, or by the public through precipitate action,

"Therefore, Be It Resolved, that the speaker of the House of Delegates be authorized and instructed to appoint a committee at this session for the immediate study of this question, and

"Be It Further Resolved that this committee shall report from time to time its findings in the STATE JOURNAL, and

"Be It Further Resolved, that no definite recommendation of this committee shall be acted upon by the State Society without first submitting the question to a referendum of the entire membership of the State Society"

Your Committee reports because such a committee for this and other purposes is recommended elsewhere to this body of delegates (and approved by it),

And because the new committee's findings will be reported to the Society as soon as it is practice to do so, and because no action binding the State Society may be taken without proper authorization, we recommend that these submitted resolutions be disapproved

I so move.

(Motion seconded and carried.)

53 Report of Reference Committee B on Resolution re Preventive Medicine

Section 25

DR. MCGOLDRICK This reference committee agrees with the statement that many lives are lost and many persons suffer needless illness because the public does not sufficiently understand that the medical profession is ready and qualified to aid them in health, as well as in disease

This committee recommends that each physician and every organization be called upon to continue and increase their efforts to inform the public of the need and value of personal preventive medicine and the benefits that may be derived therefrom

This committee further recommends that the basic health examinations serve the best purposes of the individual examined and the public when made in the office of and by the family physician.

I move the approval of this report.

(Motion seconded and carried)

54 Report of Reference Committee on New Business B on Resolutions on subject "Medical Indemnity Insurance Organizations"

Section 9

DR. MCGOLDRICK Resolution of the Medical Society of the County of Albany on the subject Medical Indemnity Insurance Organizations

"WHEREAS, the Medical Society of the State of New York has always opposed the enactment of any compulsory health insurance law, and

"WHEREAS, it is a recognized fact that most states or countries having compulsory health insurance began by promoting voluntary insurance or indemnity schemes, and

"WHEREAS, there has been a bill before the Legislature providing legislation that would

49 Report of the Reference Committee on the report of the Committee on Trends

Section 12

DR. LOUIS H. BAUER One cannot read the report of the Committee on Trends without realizing the enormous amount of work accomplished by this Committee, enormous for any committee and particularly so when it is considered that each member of the committee was chairman of still another committee or engaged in some equally time-filling work for the Society.

In these days of improved and new methods of treatment, and constant social upheaval, not only the physician but also the layman needs to be kept informed on subjects that are of vital interest to them. The work of this committee then is paramount in its effect on the education of the public and physician in economics and the newer therapeutics.

The thanks of the Society is due this committee for its work.

The committee seems to have succeeded in reaching a complete cross-section of those most apt to disseminate still further the information sent out. It is vital that this work be continued and, if possible, increased. It is difficult, however, to see how the committee can increase its activities except through the recently organized Speakers' Service of the Public Relations Bureau and that only through the cooperation of the County Societies. The Committee has requested that there be such cooperation and the Reference Committee has therefore drawn up the following resolution which it feels the House of Delegates should adopt.

"WHEREAS, the Committee on Trends has done valuable work in educating both the profession and the laity in professional and economic changes, and,

"WHEREAS, the value of the recently organized Speakers' Service project will be greatly enhanced by the cooperation of the County Societies,

"Therefore, Be It Resolved, by the House of Delegates of the Medical Society of the State of New York, assembled in annual meeting at Rochester, New York, on May 24th, 1937, that each County Society is urged to appoint a special committee of not more than three members, to cooperate locally with the Committee on Trends of the Society in the furtherance of the Speakers' Service project."

I move the adoption of the Committee's report, together with the resolutions I have just read.

(Motion seconded and carried.)

DR. ROONEY The Commissioner of Health of the State of New York is with us. I move that he be granted the privilege of the floor and be escorted to the rostrum.

THE SPEAKER Will Dr. Mitchell escort the Commissioner of Health to the rostrum?

50 Report of Reference Committee on report of Legal Counsel

DR. VEEDER Reading the report of the legal counsel of the Society, your committee is impressed with the increasing volume of work performed by this department. Although the number of litigation instituted during the year was about the same as the previous year, a substantial increase was made in disposing of pending cases. The articles published in the JOURNAL, prepared by the legal department pertaining to court decisions of a medical nature, have been timely and informative. County societies and individual physicians have requested opinions on legal matters in ever increasing numbers. In each instance the office of the legal department has been most gracious in complying with these requests and has rendered opinions that have been valuable to both the individuals and the county societies requesting them, and to the State Society as a whole. The report indicates that the Counsel, Mr. Brosnan, and the attorney, Mr. Clearwater, have conducted this department in a highly efficient manner and deserve the commendation of the Society.

I move its adoption.

(Motion seconded and carried.)

51 Report of Reference Committee on report of Committee on Workmen's Compensation

DR. O'GORMAN Your Reference Committee recognizes the vast amount of work accomplished by our Workmen's Compensation Committee through arduous detailed effort and calls your attention to the Committee's contacts and conferences with every agency, private and public, interested in the care of injured workmen. The resulting state-wide advance in understanding and appreciation of our Society's objective to safeguard the interests of the injured workmen with approved medical care at a just cost has our enthusiastic approval. We wish to remind you there are well-organized influences making an endeavor to break down many provisions of the present law. The physicians of the State must maintain constant contact and pressure to offset such influence on the Commissioner and the Department of Labor.

In harmony with the Workmen's Compensation Committee's activities, we recommend

1 That the industrial Commissioner be requested to refuse employers and self insurers preferential rates below the minimum fee schedule for medical services under the Workmen's Compensation Act.

2 That the Society go on record as approving the Esqurol Bill, Senate Int. 1962, introduced April 15, 1937. (An Act to Amend the Workmen's Compensation Law with respect to Compensation.)

We recommend re-introduction of this bill. There are two recommendations. I move the adoption of the first recommendation, that the Industrial Commissioner be requested to

STATE JOURNAL, and endorse his opinion in regard to the retention of the district branches.

We endorse his comment in regard to the employment of a full-time secretary, but due to the fact that this will be discussed before the House of Delegates in connection with the Report of the Committee on Revision of Constitution and By-Laws, would advise no action at this time.

We approve his second comment in regard to Miss Baldwin. This will be brought before the House of Delegates later at this session by a recommendation of the Executive Committee, so we suggest action be taken on this matter at that time.

Your Committee considers this an excellent detailed report of a very efficient secretary.

We move the adoption of this report.

(Motion seconded and carried.)

59 Supplementary report of the Board of Censors

Section 61

THE SECRETARY. In the matter of discipline imposed by the Medical Society of the County of Queens on its two members Drs F Raymond Surber and Thomas F Draper, the Board of Censors of the Medical Society of the State of New York, on April 24, 1937, heard a second appeal.

There were present at this meeting Drs Floyd S Winslow, Peter Irving, Terry M Townsend, Carl Boettiger, Murray M Gardner, Leo P Larkin, Thomas W Maloney, H Wolcott Ingham, Mr Lorenz J Brosnan, Counsel, and Mr Thomas H. Clearwater, attorney.

There were also present Dr James F Reuling, Jr, president, and Dr Herbert L. Langer, chairman of the Board of Censors of the Medical Society of the County of Queens.

The appellants were represented by counsel, Mr Lloyd Paul Stryker.

After full consideration of the record of further action by the Medical Society of the County of Queens, to which the matter had been remanded for consideration in the light of additional evidence, and which Society reaffirmed its original decision, the Board of Censors of the Medical Society of the State of New York unanimously adopted the following resolution:

That it be the decision of the Board of Censors on this appeal that the evidence does not sustain the charges which have been made against these appellants, and that, therefore, the decision of the Board of Censors of the Queens County Society, finding these men guilty of such charges, must be reversed, the charges dismissed and the appellants reinstated to membership in good standing in their county society as of the date of their original suspension."

THE SPEAKER. Referred to Reference Committee on Report of Board of Censors.

60 Report of Reference Committee on Report of the Council

DR. CARPENTER. The first major event reported by and acted upon by the Council was in regard to the mandate of the 1936 House of Delegates, providing for the introduction to the State Legislature of a law limiting the administration of anesthesia to physicians and dentists. This action was rescinded at the meeting of the Council held December 10, 1936. The present House of Delegates was informed concerning this action, as a referendum was submitted to them as provided by the by-laws. The action of the Council was approved by a vote of 157 to 8.

Unquestionably in view of the evidence presented and conditions existing, this action is wise. We believe, however, that this legislation should still be one of our objectives, thereby maintaining administration of anesthesia as a special branch of medicine. To this end we would suggest that courses be established to train physicians in this specialty. We move this be approved and the matter referred to the Legislative Committee to use their efforts to secure the passage of suitable legislation at as early a date as practicable.

On recommendation of the Committee of Public Health and Medical Education, the council passed a resolution request the State Department of Education to prepare a pamphlet for issue to all licentates, especially recent graduates, pamphlet to give information in regard to the technicalities of the Educational Law, which are to be observed by all physicians and especially in regard to the matter of local registration and annual registration.

The committee approves of this resolution and moves its adoption.

(Motion seconded and carried.)

We have made a very careful study of the appointees of the Executive Committee on the various standing committees approve the same and consider these appointments of a very high order.

We observe at the first meeting of the Executive Committee on April 28, 1936 at the suggestion of the President, invitation was extended to the five trustees the executive officer first vice-president, director of Workmen's Compensation, chairman of the Committee on Trends and the Director of Public Relations to attend the meetings of this committee and were accorded the privilege of the floor.

In the opinion of our Committee, this was a very sensible innovation as it made available to the Executive Committee much valuable information and advice which would assist them in making important decisions. The reference committee recommends continuance of this procedure.

We move its adoption.

(Motion seconded and carried.)

The following resolution was passed by the Executive Committee:

"The Medical Society of the State of New York urge that the reorganization of the Fed-

enable the creation of medical indemnity insurance organizations,

"Be It Therefore Resolved, that the Medical Society of the State of New York maintain its position of opposition to all schemes of this character unless a decision to the contrary is reached in the House of Delegates' meeting either in regular or special session."

This committee recommends the adoption of these resolutions

I so move.

(Motion seconded and carried)

55 Report of Reference Committee on New Business B on Resolution re Physicians' dismissal from hospitals without hearing

Section 21

DR. MCGOLDRICK "WHEREAS, physicians serve on hospital staffs of municipal and voluntary institutions for long years without compensation, and

"WHEREAS, these physicians oftentimes after many years of faithful and diligent service are summarily dismissed without being granted a hearing by the Board of Directors of these institutions,

"Be It Resolved, that the House of Delegates of the Medical Society of the State of New York go on record as opposed to any such dismissal on the part of the directors and boards of these institutions without a hearing"

This committee believes that this is a matter for local county societies and not for the State Society

I move the adoption of this report

(Motion seconded and carried)

56 Report of Reference Committee on the Report of the President

DR. WOODEN The reference committee on the Report of the President had a light task. Fortunately for the time and the nervous system of this deliberate assembly, the report is devoted largely to an outline of the activities of a year of harmony. This tranquility is reflected in the report of your reference committee. It is obvious that the office has functioned energetically and that a major contribution has been made in the form of increased cooperation with groups with whom we share common problems. A notable example is the wholesome relationship that has been established with the State Hospital Association. The single recommendation that special attention be devoted to five specific problems—hospital insurance, tuberculosis, crippled children, welfare and nursing problems—by assignment to either regular or special committees, seems to this committee to represent a wise prophetic grasp of subjects for near-future study. Specific suggestions as to the assignment of these problems may well await the solution of the study of revision and reconstruction of by-laws

The Committee recommends the adoption of the report of the President as a whole.

(Motion seconded and carried)

57 Report of Reference Committee on the Address of the President-Elect

Section 5

DR. WOODEN The Reference Committee commends the address of the President-Elect as worthy of careful reading on the part of the members of the House by reason of its fine expression of the needs and aims of organized medicine. Specifically, the committee approves of these recommendations

That county and district branch meetings give considerable attention in their programs to the subjects of materia medica, therapeutics and pharmacology and that the JOURNAL Management Committee be requested to establish a department in such a manner, in their wisdom as will increase the practical knowledge and skill in these subjects

That during the coming year, in county and district branch meetings the subject of preventive medicine be presented actively and its practice by the profession encouraged in every possible way

That contributions on preventive medicine to the STATE JOURNAL be offered by the membership and sought by the JOURNAL Management Committee

That whenever and wherever possible lay audiences throughout the state be provided with addresses on preventive medicine, such provision to be made by county societies, district branch officers, the Public Relations Bureau or by concerted action.

The committee recommends the adoption of the address of the President-Elect, and its contained resolution, as a whole.

(Motion seconded and carried)

58 Report of Reference Committee on Report of the Secretary

DR. CARPENTER We note the increase in 1936 of the Membership in the State Society by approximately eleven hundred members and appreciate that this, coupled with the changes in the Compensation Laws and the increased activity of the Committee on Trends and Public Relations, entails a large amount of administrative work, increasing the duties of the Secretary

We approve heartily of the closer relationship between the Society and the New York State Department of Health, especially with regard to pneumonia and syphilis control and maternity and child welfare.

We believe the invitation of Committee chairmen and trustees to the Executive Committee meetings and sending of agenda to those attending tends to increase efficiency. We commend the secretary for attending such a large number of Society meetings, his work on the

Your Committee has studied the excellent report of the JOURNAL Management Committee. We feel every member of the State Society has reason to be proud of the growth of the JOURNAL under the present management. The increase in size is gratifying, but more important is the improvement in the scientific articles published. There is also a marked change for the better in the quality of the advertising matter. All this has been accomplished at a minimum added expense. The improvement in the Directory is noted and commended.

Your Committee feel that the work of this Committee deserves the highest commendation. We move its adoption.

(Motion seconded and carried.)

At a meeting of the Executive Committee held June 11, 1936, Dr Nathan B Van Etten, Trustee, asked and was granted the privilege of the floor. He paid a very fine, well-deserved tribute to Miss Baldwin, who has worked in the interest of the Medical Society of the State of New York for many years. She has been of great assistance to presidents, secretaries, and treasurers as well as other members of the Society. She has been an encyclopedia of knowledge in regard to all matters pertaining to the Society. He suggested she be retired with the title of Office Manager Emeritus. Motion was made by Dr Kopetzky, seconded by Dr Goodrich, and unanimously carried that Miss Baldwin be retired with the title of Office Manager Emeritus at such time as was decided by a committee of the President, Treasurer, and Secretary. That it be recommended to the Board of Trustees that from the date of her retirement she receive as long as she lives a salary at the rate of \$3,000.00 per annum. The Executive Committee recommends that the House make permanent this action.

I move that this be made permanent at this time, and move the adoption of this report.

DR. BEDELL I would like to move that in addition to this, we send Miss Baldwin a certificate suitably engraved, expressing to her in that way, as well as in a financial way, our great appreciation of her record.

No man could ever have been president of this Society without appreciating the immense value of her services to every one of us, I mean members as well as officers.

I make this motion as an amendment and trust that the Reference Committee will accept it and make it a chief part of their report.

DR. ROONEY I second the motion
(Applause)

THE SPEAKER The Reference Committee's report has this suggested amendment. I presume it will be accepted. I, personally, am so appreciative of all that has been said that I want to put this to a rising vote. I want Miss Baldwin to come up on the platform here and receive the vote.

(A rising vote being taken, the motion was unanimously carried.)

DR. CARPENTER We believe that the conferences arranged between a committee from the Medical Society of the State of New York with a committee from the State Hospital Association will result in a better understanding and closer cooperation between these two organizations.

Your Reference Committee is much impressed by the results of the conferences between the committees of the State Medical Society and the State Hospital Association. Definite articles of agreement have been set up by these committees as is noted in their report which we have given very careful study. Other points are still under discussion which will probably be agreed upon at later conferences.

This movement certainly is a step forward, as it will clarify misunderstandings between the hospital management and the medical profession. In our opinion this committee deserves the highest commendation for the tactful way in which it has negotiated a very difficult situation.

We recommend that this committee be continued. We move its adoption.

(Motion seconded and carried.)

DR. CARPENTER Your Reference Committee has read the voluminous report of the Committee on Economics on the subject of medical expense indemnity insurance. We appreciate the tremendous amount of intelligent work that has been reported. Also we have studied the report of the Legislative Committee on this subject. There may be a place for some type of insurance of this character. However, it is a question if it is advisable for the Medical Society of the State of New York to definitely endorse any plan of this kind at this time.

We believe further consideration of this subject is necessary for the reason that in many instances beginning with the endorsement of a voluntary insurance, the next step in the process if these companies should tend to become insolvent, would be compulsory health insurance.

Therefore we recommend its disapproval.
(Motion seconded.)

DR. ELLIOTT You gentlemen in this House need no detailed picture of the economic problem which faces a very large part of our population at any time when more than minor medical care is needed. That large group is now compelled under the force of necessity to surrender their status of self-reliance and independence and accept the tender of free medical care. They should have a mechanism through which by means which they are able to provide they can retain that independent self-support in the matter of medical care and instead of being forced to accept a tender of free medical care they should be made able to compensate each doctor for such service as they need.

Under the wording of our law it is not pos-

eral Government combine in one department all medical and health activities, making this a separate and distinct department, and urge especially the nomination as chief executive officer of such a department of a qualified physician with a record of achievement in administration"

This committee approves of this resolution and moves its adoption by the House of Delegates

(Motion seconded and carried)

The Executive Committee recommends that physicians engaged in "group practice" should remain within the same framework of restrictions as to their conduct, as though the activity were that of an individual physician. In other words, we feel that a group may not obtain publicity by any means in lay publications, that it should not solicit or advertise, that it should not claim superior quality or service, should not practice competitive fees against the individual physician of the community. If the group conforms to this, and relies solely upon the recognition of its service by the people of the community as its sole means of acquisition of patronage, it would seem to be a proper and fair activity

We approve of this recommendation and move its adoption

(Motion seconded and carried)

Upon recommendation of the Committee on Workmen's Compensation procedures, the Executive Committee went on record as favoring the promulgation of a state-wide fee schedule, the same as already set for the metropolitan area

We approve this recommendation and move its adoption

DR. BEDELL Speaking for at least a few of the up-state districts, I urge that this recommendation be disapproved until we, of the up-state districts, have had further time to observe the workings of the bill adopted in the lower section. I believe that time will show that some of the disadvantages which have been reported from the lower part of the state will be corrected, and we, up state, will not be subjected to the experience of living them down.

(Delegates from Broome and Greene Counties concurred that the recommendation should be disapproved)

(Dr. Podvin of the Bronx, spoke on behalf of the Industrial Council in favor of the adoption of the recommendation)

(A vote was taken on the motion and the motion to adopt the report of the Reference Committee was carried)

DR. CARPENTER We note there will be a session on general and regional anesthesia this year, in accordance with the suggestion presented to the last House of Delegates. At the suggestion of Dr. James Ewing of New York, the Executive Committee recommends the creation of a session or section on pathology (See section 31)

Your Committee moves that a Section on Pathology and Clinical Pathology be created (Motion seconded and carried.)

In conformance with the by-laws, the Executive Committee received the nomination for honorary membership, Dr. Jose Arce.

"Gentlemen the undersigned members desire to nominate for honorary membership in the Medical Society of the State of New York Dr. Jose Arce, Professor of Surgery, University of Buenos Aires, Buenos Aires, Argentine."

"We beg to present this at the meeting of the House of Delegates in May 1937, as prescribed by the By-laws, Chapter I, Section IV

"Very truly yours,

FLOYD S. WINSLOW
JOSEPH J. ELLER
CHAS. GORDON HEYD "

The Executive Committee recommends the By-laws requiring the wait of one year be suspended and that the House of Delegates proceed to elect Dr. Jose Arce to honorary membership at the 1937 meeting

I move suspension of the By-laws and election of Dr. Jose Arce at this time

THE SPEAKER This recommendation is declared out of order. The nomination lays over for one year and takes the usual course

DR. CARPENTER Recommendation was made by the Economics Committee which would rescind sections A, B, C, D and E of Proposition III of the Booth Report, restating the same under heading A to E as noted in the report of the Executive Committee. This would define and clarify the meaning of hospital care in contradistinction to medical care as covered in the group hospital insurance plan. This would seem desirable and we move its adoption.

We wish to express our approval of the resolution of the Board of Regents which follows

"That on applications filed after October 15 1936 no license of a legally constituted Board of Examiners in any foreign country shall be endorsed pursuant to the provisions of Section LI of the Educational Law until the applicant shall pass the licensing examination prescribed by law and regent's rule."

The following resolution was passed by the Executive Committee

"That a temporary binder be issued to any applicant for membership in the Medical Society of the State of New York as soon as the Secretary of the County Society advises the secretary of the State Society that his application for membership, together with his check for dues has been received and placed on file with the County Society, provided that when the applicant is finally elected, the binder is to be closed by the issuance of a certificate of insurance dated as of the date of issue of the binder, provided that if the applicant fails of election the binder will be cancelled as of the date of the issuance of the application and the applicant would enjoy no protection thereunder

This resolution seems wise and we move the adoption of the same.

(Motion seconded and carried.)

Your Committee has studied the excellent report of the JOURNAL Management Committee. We feel every member of the State Society has reason to be proud of the growth of the JOURNAL under the present management. The increase in size is gratifying, but more important is the improvement in the scientific articles published. There is also a marked change for the better in the quality of the advertising matter. All this has been accomplished at a minimum added expense. The improvement in the Directory is noted and commended.

Your Committee feel that the work of this Committee deserves the highest commendation.

We move its adoption

(Motion seconded and carried.)

At a meeting of the Executive Committee held June 11, 1936, Dr Nathan B Van Etten, Trustee, asked and was granted the privilege of the floor. He paid a very fine, well-deserved tribute to Miss Baldwin, who has worked in the interest of the Medical Society of the State of New York for many years. She has been of great assistance to presidents, secretaries, and treasurers as well as other members of the Society. She has been an encyclopedia of knowledge in regard to all matters pertaining to the Society. He suggested she be retired with the title of Office Manager Emeritus. Motion was made by Dr Kopetzky, seconded by Dr Goodrich, and unanimously carried that Miss Baldwin be retired with the title of Office Manager Emeritus at such time as was decided by a committee of the President, Treasurer, and Secretary. That it be recommended to the Board of Trustees that from the date of her retirement, she receive as long as she lives a salary at the rate of \$3,000.00 per annum. The Executive Committee recommends that the House make permanent this action.

I move that this be made permanent at this time, and move the adoption of this report.

DR. BEDELL I would like to move that in addition to this, we send Miss Baldwin a certificate suitably engraved, expressing to her in that way, as well as in a financial way, our great appreciation of her record.

No man could ever have been president of this Society without appreciating the immense value of her services to every one of us, I mean members as well as officers.

I make this motion as an amendment and trust that the Reference Committee will accept it and make it a chief part of their report.

DR. ROONEY I second the motion.

(Applause)

THE SPEAKER The Reference Committee's report on this suggested amendment. I presume it will be accepted. I, personally, am so appreciative of all that has been said that I want to put this to a rising vote. I want Miss Baldwin to come up on the platform here and receive the vote.

(A rising vote being taken, the motion was unanimously carried.)

DR. CARPENTER We believe that the conferences arranged between a committee from the Medical Society of the State of New York with a committee from the State Hospital Association will result in a better understanding and closer cooperation between these two organizations.

Your Reference Committee is much impressed by the results of the conferences between the committees of the State Medical Society and the State Hospital Association. Definite articles of agreement have been set up by these committees as is noted in their report which we have given very careful study. Other points are still under discussion which will probably be agreed upon at later conferences.

This movement certainly is a step forward, as it will clarify misunderstandings between the hospital management and the medical profession. In our opinion this committee deserves the highest commendation for the tactful way in which it has negotiated a very difficult situation.

We recommend that this committee be continued. We move its adoption.

(Motion seconded and carried.)

DR. CARPENTER Your Reference Committee has read the voluminous report of the Committee on Economics on the subject of medical expense indemnity insurance. We appreciate the tremendous amount of intelligent work that has been reported. Also we have studied the report of the Legislative Committee on this subject. There may be a place for some type of insurance of this character. However, it is a question if it is advisable for the Medical Society of the State of New York to definitely endorse any plan of this kind at this time.

We believe further consideration of this subject is necessary for the reason that in many instances beginning with the endorsement of a voluntary insurance, the next step in the process if these companies should tend to become insolvent, would be compulsory health insurance.

Therefore we recommend its disapproval.

(Motion seconded.)

DR. ELLIOTT You gentlemen in this House need no detailed picture of the economic problem which faces a very large part of our population at any time when more than minor medical care is needed. That large group is now compelled under the force of necessity to surrender their status of self-reliance and independence and accept the tender of free medical care. They should have a mechanism through which by means which they are able to provide, they can retain that independent self-support in the matter of medical care and instead of being forced to accept a tender of free medical care they should be made able to compensate each doctor for such service as they need.

Under the wording of our law it is not pos-

sible to set up a system in which the people, for a small sum, can engage an indemnity cash reserve to meet such emergencies

I do not think that the interest of the doctors of this state is being served by holding up before us a phantom fear that all voluntary insurance leads to compulsory insurance. The thing that has led to compulsory insurance in foreign countries has been that they were not practicing insurance in the true sense of that term, but were disguising a contract practice of medicine, and out of such a system there inevitably arises wrongs which require governmental supervision. It has been in consequence of that abroad that they have had inevitably a state control and compulsory health insurance system.

The surest defense that this Society can set up against state medicine, against a compulsory health insurance for the people of low income, is to establish a mechanism through which these people may have and enjoy an independence and through which we may continue to practice in private rather than to be subjected to some system of state control or some system of contract practice.

It seems to your Committee on Economics that is much wiser since our insurance department, a public agency, has turned to the organized medical society and said, "Here is a problem, it must be solved, we believe that you folks are more intimately acquainted with the real problem of providing medical care and we believe that you, in cooperation with us, can solve this thing in an American way, that we can defend the American people against a foreign, alien method of insurance by developing, through cooperation of this agency and your organized body, a system which will preserve American medicine for American people."

It has been said that we have no experience and that the problem of setting up rates is unsurmountable. Until we start, how are we going to have experience? If we indicate a lack of concern in our own intelligence, our ability to tackle the application of a sound principle for the good of the people whom we serve and for the protection of the professional heritage which has been handed down to us, we are not living up to our obligations.

DR. READ, *Kings* As a member of this committee we might agree with the wishful thinking of our Economics Committee chairman. We do not deny that there may be a means which can be worked out. The conflicting theories of the various medical societies on the wisdom of the details of this proposal offered to us was such that this committee felt, as it stated in its recommendation, that another year's consideration was necessary before this body could take any definite action. Therefore, we recommended that it be held over for consideration and we disapproved more formal action at this time.

(On motion, seconded and carried, Dr Wetherell, a member of the Committee on Economics, although not a member of the House

of Delegates, was accorded the privilege of the floor)

DR. WETHERELL There has been a great deal of confusion about this matter of sickness indemnity insurance. It is not "wishful thinking", with due respect to the previous speaker, on the part of the chairman of the Medical Economics Committee, which consists of not only the chairman, but at least a dozen. We have been working on this thing for a matter of six years, so that it is not something that has just arisen.

The study has been completed. A law has been drawn which gives control to the Medical Societies of the various counties.

It is simply this: you pay so much a year to indemnify you against three hundred dollars' worth of doctors' bills in a year. I have gone over it very carefully and it is exactly the same in its procedure as hospital insurance which we have now, which indemnifies you against three weeks in the hospital.

There have been various red herrings drawn across this trail and one is the Brattleboro plan, which has nothing to do with it.

The important thing to remember is that we are trying to do something for this group of earners in the middle class, such as we are, the white collar class, so that they may, through a non-profit mutual sickness insurance indemnity group indemnify themselves against doctors' bills.

The arguments against it are that it is an inroad to state medicine. It is no more an inroad to state medicine than the present insurance is because if more money is needed the group will simply put on a larger premium the next year.

The medical profession has control over the qualifications of the doctors, according to the law which was drawn up and presented to the Executive Committee and which we thought was going through, but which didn't go through, for reasons which I do not know.

The whole thing is a fight against socialized and state medicine.

DR. FISCHOFF I do not know how many of you have gone over the report on indemnity insurance, but I went over it rather carefully and it has several weaknesses which I think the members of this House ought to know about.

In the first place, in addition to those objections which have been expressed already, it has these weaknesses from the standpoint of the man applying for this insurance, it is going to be costly because the elements of minor illnesses and the first stages of major illnesses are often confusing. In other words there will be a deductible clause for one or two weeks, the same as we have a deductible clause in our automobile collision insurance. If the insured has to pay not only the cost of this premium for the first week or ten days or for the minor illnesses, he still would have to pay the doctor for that sort of thing, so that it would be an additional cost to him.

Secondly, so far as the contract is concerned, there is a certain amount of limitation on the choice of doctors and hospitals whenever he needs the hospital.

Thirdly, there would be a limitation so far as the type of disease is concerned, and the course of treatment.

There is going to be a constant bickering and disagreement as to what is known as the initial part of illness.

So far as I am concerned I do not know what the initial part of acute appendicitis is.

Then the question of negligence on the part of the patient will have to be considered. Since he cannot collect for a doctor's bill within a certain period of time, he will not call a doctor if he has to pay for it himself.

Then a body will have to be created to investigate the eligibility of applicants for this type of insurance. That is what the bill calls for, and here is the problem: the bill does not state exactly who is eligible. It says, "The low-income group." Whatever that means I do not know.

Then of course comes the question of the number of children in the family and the social conditions he lives under. And we have not defined "indigent" yet.

Then, too, you have the problem of padding bills. There are those who, having paid their premiums, are going to try to get as much back as they can.

Further, in order to arrange for this thing you will have to have some sort of fixed fee because you will have to eliminate the sliding scale fees. If you are going to give the doctor a smaller fee for doing this type of work, in order to make up for that, he is going to make more calls. Incidentally this would have a great tendency to lower doctor's fees. If under this plan a man is charged \$3.00 and in private practice he has to pay \$5.00, it is going to create a situation where the first thing you know all such charges will be three dollars.

DR. ELLIOTT After an illustration of how completely a thing can be misunderstood and misrepresented, and how utterly inadequate such a discussion as this can be, in the consideration of one of the most important questions that has ever come before this House, I sympathize with the Executive Committee which hesitated to assume the responsibility of putting this Society on record for this. I am reminded of the definitions of "conservative" and "radical." A conservative believes nothing should ever be done the first time. The radical believes nothing should be done twice. This thing is in between.

I move a substitute motion on an amendment to the resolution of the Reference Committee that this House instruct its ad interim legislative body, whatever it may be, the Executive Committee or the new Council, to act for this House when the economic group have satisfied that ad interim body that this is a fair and proper procedure for the State Society. I propose that amendment on the ground that the

smaller body, with greater time, can go into the details, which would take us two or three hours here.

(Substitute motion seconded and carried.)

THE SPEAKER The report of the Reference Committee in regard to the report of the Committee on Economics on the subject of Medical Expense Indemnity Insurance is lost.

DR. CARPENTER I move the adoption of the report of the Reference Committee on the report of the Council as amended.

(Motion seconded and carried.)

61 Report of the Reference Committee on the Report of the Board of Censors

Section 59

DR. CARPENTER The report of the Board of Censors shows that two sessions were held during the year. The first on December 10, 1936, to hear the appeal of Drs. Thomas F. Draper and F. Raymond Surber from the action of the Medical Society of the County of Queens suspending them from the rights and privileges of membership for a period of six months from October 27, 1936. This matter was referred back to the Board of Censors of the Medical Society of the County of Queens for reconsideration, with medical evidence which had been submitted to the Board. The second meeting was held April 24, 1937, to hear a second appeal by Drs. Surber and Draper. After a full consideration of the record of the Medical Society of the County of Queens and combined with the additional evidence, the Board of Censors of the Medical Society of the State of New York found that the evidence would not sustain the charges against these appellants, reversed the action of the Board of Censors of the Queens County Society and ordered the reinstatement of these members at the date of their original suspension.

We move the approval of the Board of Censors' action.

(Motion seconded and carried.)

62 Report of the Reference Committee on the report of the Councillors

DR. CARPENTER We have carefully studied the report of the Councillors, which consisted principally of a review of the programs and actions taken at the eight district branch meetings. In commenting upon these meetings, it would seem that they were of exceptional scientific value and the attendance very satisfactory.

We move the adoption of this report.

(Motion seconded and carried.)

63 Resolution re Kline-Todd Radiology Bill

Section 73

THE SPEAKER This is a resolution from the Medical Society of the County of Westchester.

WHEREAS, radiologists through their organization, sponsored a bill in the 1937 New

York State Legislature known as the Kline-Todd Radiology bill, and

"WHEREAS, such bill defined radiology and proposed needed safeguards against the commercial exploitation of radiology, and

"WHEREAS, this bill was killed by the chairman of the Senate Committee who refused to report it out of committee,

"*Therefore, Be It Resolved*, that the Medical Society of the State of New York approve the principles of the Kline-Todd Radiology bill and direct the proper committee to reintroduce and support a similar measure at the 1938 New York State Legislature."

THE SPEAKER This will be referred to Reference Committee on New Business A

64 Re Delegates to Connecticut and New Jersey Society Annual Meetings

Section 70

THE SECRETARY "WHEREAS, very cordial relations with the State Medical Societies of Connecticut and New Jersey have recently been established in connection with improving the Directory, and

"WHEREAS, the Connecticut State Medical Society asked that the Medical Society of the State of New York appoint two delegates to its annual meeting,

Be It Resolved, that the Medical Society of the State of New York ask the State Societies of Connecticut and New Jersey to designate to its annual meetings two delegates hereafter, and

Be It Further Resolved, that two delegates be appointed to the Connecticut State Medical Society"

THE SPEAKER Referred to Reference Committee on New Business B

65 Communication from Women's Medical Society of New York State

Section 72

THE SPEAKER We have the following from The Women's Medical Society of New York State

The Women's Medical Society of New York State at their 31st Annual Session in Rochester, May 24, 1937, unanimously endorsed the following communication from the Women's Medical Association of New York City

"Inasmuch as one state has tried the experiment of requiring a blood Wassermann test before granting a license for marriage, and has found that it has worked out satisfactorily and without undue hardship, and inasmuch as gonorrhea as well as syphilis should be guarded against, and inasmuch as gonorrhea in women is more difficult of diagnosis than in men—and inasmuch as the Complement Fixation test for gonorrhea promises to be just as reliable as the Wassermann test for syphilis,

Therefore, Be It Resolved that the Women's Medical Association of New York City, lay

before the Women's Medical Society of New York State, the following motion requesting that they endorse it and in turn submit it to the House of Delegates of the Medical Society of New York State.

The motion is as follows

1 That the Complement Fixation Test for gonorrhea (comparable to the Wassermann blood test for syphilis) be standardized by the New York State Health Department and its values established.

2 That the enactment of a marriage law for New York State be urged which shall include,

(a) A suitable clinical examination and a blood Wassermann test (by a recognized laboratory) on both the male and female applicants

(b) A suitable clinical and laboratory examination for gonorrhea on both the male and female applicants

(c) That if the value of the Complement Fixation test for gonorrhea be established, this test shall also become compulsory

(d) That records of such examinations shall not become matters of public record, but shall remain confidential records under the Health Office of jurisdiction

(e) That the law shall not prohibit marriage of a person suffering from syphilis or gonorrhea, if proven non-infectious

(This motion was seconded and unanimously carried May 12, 1937 and Dr Emily Dunning Barringer, Chairman of the Legislative Committee, was authorized to present it to the Women's Medical Society of New York State at their annual meeting at Rochester)

THE SPEAKER Referred to Reference Committee on New Business C

66 Resolution Re Expressing appreciation for contributions to Medicine of the late John D Rockefeller

Section 77

DR. GROAT "*Resolved*, the Medical Society of the State of New York wishes to express to the family of the late John D Rockefeller its appreciation of his contributions to the promotion of scientific medicine throughout the world"

THE SPEAKER This resolution will be referred to Reference Committee on New Business D

67 Amendment to By-Laws re Component County Society Delegates

THE SPEAKER We have the following resolution "WHEREAS, the constitution and by-laws provide that each component county society shall be entitled to elect as many delegates as there shall be assembly districts in such county at the time of election, and

"WHEREAS, such representation is supposed to be based on population but in fact is not so based because of the failure of the State Legislature to make reapportionment, and

"WHEREAS, this Society should and can do away with political boundaries within the counties as far as it affects this body,

"Therefore, Be It Resolved, that each component county Society shall be entitled to elect at least one delegate, and one additional delegate for each 100,000 population as determined by the last United States census"

DR. KRAKOW, Bronx May I move the following substitution as an amendment

Each component county society shall be entitled to elect one delegate for each 100 members in such county at the time of election, but each component county society shall be entitled to elect at least one delegate. A component society representing by its name more than one county shall be entitled to a number of delegates proportionate to its combined membership at the rate of one delegate for one hundred members

THE SPEAKER This matter will lay over for one year

(Thereupon a recess was declared until 9 30 A.M. May 25, 1937)

ADJOURNED SESSION

May 25, 1937

The Speaker called the meeting to order at 9 30 A.M.

68 Report of Reference Committee on Report of Committee on Economics

DR. ROONEY Your Reference Committee wishes to commend the Committee on Economics for its assiduous devotion to its work during the past year. It has been instrumental in developing and nurturing an appreciation of the importance of economic factors in the practice of medicine and in bringing to the membership of the Society a knowledge of important trends in this phase of medical activity.

Your Reference Committee recommends the continued study of the many phases of the economics of medicine as developed by the Committee on Economics and in particular a more intensive and deeper study of the subject under consideration in their report, especially that devoted to medical indemnity plans.

Your Committee wishes to endorse the action of the Executive Committee of the Society taken on January 14, 1937, accepting the proposal of the Committee on Economics recommending the divorce or differentiation between Medical Service and Hospital Service, particularly in schemes like those of the Associated Hospital Service.

Your Reference Committee recommends the adoption of that part of the report of the Committee on Economics which states

"That it is the expressed opinion of the Medical Society of the State of New York that physicians practicing in groups, privately, or in hospitals should remain within the same

ethical framework as regards their conduct as though their activities were those of individual physicians"

Such a group should not obtain publicity by any means in lay publications, should not advertise, should not claim superior quality of service, and should not practice competitive fees against the individual doctors of the community. If the group relies solely upon the recognition of its services by the people as the means of acquisition of patronage it would be a proper and fair activity. On the other hand if the group, or hospital, by subterfuge, courts the patronage of the community by any form of publicity such physicians and the institution should be considered guilty of professional misconduct.

Your committee felicitates the Committee on Economics for its tact and good judgment in refraining, in accordance with the instructions of the House of Delegates, from issuing periodic bulletins and other similar publications during the past year.

Your Committee commends the Committee on Economics for the proposed review of its work during the past six years which is now in progress of preparation. This will be a great value to the Society and to others interested in the subject of medical economics.

Your Committee concurs in the report of the Committee on Economics condemning the practice of certain hospitals providing and advertising medical care to the public not entitled to free medical care for a fixed or advertised fee.

It reaffirms the recommendation of the Committee on Economics that medical care should be divorced and differentiated from hospital care or that service which the hospital may legitimately provide in assisting the medical profession to render proper medical care. Your Committee strongly recommends that such hospitals as are now participating in these practices of advertising or providing medical care under the above circumstances discontinue this practice as being beyond the function of the hospital per se and unfair to the medical profession.

Your Committee further recommends that hospitals should be bound by a code of ethics similar to those binding the medical members of their staffs, especially in regard to advertising and the solicitation of patronage.

It further recommends that participation by hospitals in such fixed fee medical service or other form of advertising or solicitation be construed as a violation of the principles of professional conduct and ethics.

Your Reference Committee feels that the Medical Society of the State of New York owes its gratitude to the Committee on Economics and particularly to its chairman, Frederick E. Elliott who has given unsparingly his ability and whole-hearted devotion to the welfare of the medical profession.

I move the adoption of the report of your Reference Committee as a whole.
(Motion seconded and carried)

69 Report of Reference Committee on Report of Committee on Legislation

See also Section 14

DR. HICKS Your Committee, having considered the report of the Legislative Committee, wishes to commend said committee for the work it has accomplished during the past year.

We concur in the attitude on the Basic Science Law. We concur with the view of the Legislative Committee on the referendum of the House of Delegates on withholding action at this time in regard to administration of anesthetics. In view of the fact that the Societies of Anesthetists are raising standards and fostering instruction in anesthesia, to supply the necessary number of trained medical anesthetists, it is deemed wise to wait until the societies of anesthetists feel that the demand of trained medical anesthetists can be fully met.

We approve the specific recommendations advertising to medical expense, indemnity insurance, and other health insurance proposals of your Legislative Committee. We recommend that the House of Delegates give due consideration to the growing interest in this matter.

We concur in the advisability of the Annual Meeting of the County Legislative Chairmen as recommended.

We concur in the issuance of the Legislative Bulletin and advise it be continued. We also advise that sufficient funds be allocated for this and other activities of your Legislative Committee in order that both public and medical interests be protected.

We recommend the proposal of negotiations between the State Bar Association and representatives of insurance carriers to bring about the passage of the Medical Lien Bill.

In spite of the approval of the Board of Regents for the bill introduced by the Osteopaths, the Legislative Committee was successful in defeating the bill on the floor of the Assembly.

Your Reference Committee is keenly conscious of the valuable work done both in this and previous years by our Legislative Committee and our executive officer.

The varied and varying members of our Legislative Committee have, under our old constitution and by-laws for more than a generation worked with tireless energy for the higher ideals of medical practice and the defeat of many proposed and vicious measures. It was a long tedious effort accompanied by many failures that gave to us our present medical practice act.

During all these years this committee has been classified by the corps legislative and lobbyists with what seems to us persistent inconsistency. Inconsistent, yes, for the term carries with it to the great world without, something that stands in the shadow of monopolistic corporative interests.

Your Committee makes this small gesture of appreciation both as a salutation and a requiem to the incoming and outgoing Committee on Legislation. In the name of the House of Delegates and the Medical Society of the State

of New York, we bid farewell to the outgoing and hail the incoming with all good wishes.

I move the adoption of this report.
(Motion seconded and carried.)

70 Report of Reference Committee on New Business B on resolution re Delegates to Connecticut and New Jersey Society Annual Meetings

Section 64

DR. MCGOLDRICK Reporting on the following resolution:

"WHEREAS, very cordial relations with the State Medical Societies of Connecticut and New Jersey have recently been established in connection with improving the Directory, and

"WHEREAS, the Connecticut State Medical Society asked that the Medical Society of the State of New York appoint two delegates to its annual meeting,

"Be It Resolved, that the Medical Society of the State of New York ask the State Societies of Connecticut and New Jersey to designate to its annual meetings two delegates hereafter, and

"Be It Further Resolved, that two delegates be appointed to the Connecticut State Medical Society."

Your Reference Committee recommends the approval of this resolution.

I move its adoption.

(Motion seconded and carried.)

71 Report of Reference Committee D on resolution re Radiology

Section 19

DR. MOTT This resolution, referred to Reference Committee D, was from the Special Committee on Radiology, New York County Medical Society.

The Medical Society of the State of New York has already established a section on radiology. In the opinion of the reference committee this constitutes recognition of the practice of diagnostic and therapeutic radiology, including the use of radium as a special branch of medicine.

Your reference committee therefore feels that the resolution as presented is superfluous.

I move the adoption of this report.

(Motion seconded and carried.)

72 Report of Reference Committee on New Business C on resolution presented by Women's Medical Society of New York State

Section 65

DR. HAMILTON Your Reference Committee on New Business C has carefully considered a resolution transmitted to the House of Delegates by the Women's Medical Society of the State of New York. Your Committee feels

that the subject matter transmitted in this resolution is one for mandatory legislation and public health education.

Legislation has already been introduced, but has never been enacted in this state. The medical profession and public health authorities recognize the fact that this procedure is the correct precaution for public health and happiness.

Your Committee feels that the education of the public by pamphlet, press, and radio is being, and should be, carried out by the Committee on Public Health of the Medical Society of the State of New York.

I move the adoption of this report.

(Motion seconded.)

DR. SCHIFF I would move to amend by referring this to the Council which will have a sub-committee on this topic.

DR. BARRINGER Members of the House of Delegates, as Chairman of the Legislative Committee of the Medical Association of Women in New York City, I was asked to carry this message to the State Meeting of the Women's Medical Society and then if it was passed there, to lay it before you for your very serious consideration.

I, therefore, am bringing you a message from the Medical Women of New York City and from the Medical Women of New York State. We feel that this matter is of paramount importance, but we have not yet been able to impress the medical public of that fact. Now, we wish to lay it before you gentlemen today and ask that it be given vigorous, scientific consideration. We want to have it go into a committee that will really evaluate it and let it have a practical outcome.

DR. KALISKI I believe we are all in sympathy with the Women's Medical Society, but this matter has been given serious consideration by a serious committee, a scientific committee of this Society. I feel that the resolution as referred to the Reference Committee, contains scientific statements that are open to question and I feel that the resolution, as offered should not be adopted by this House. It would take too long to refute some of the points made in the resolution. The resolution should be referred, in accordance with the amendment made by Dr Schiff, to the Council, or to a proper committee for further study.

THE SPEAKER I take it you are speaking in favor of the adoption of the amendment?

DR. KALISKI I am speaking in favor of the adoption of the amendment.

(A vote being taken, the motion amending the Report of the Reference Committee C was carried.)

73 Report of Reference Committee on New Business A, on resolution re The Kline-Todd Radiology Bill

Section 63

DR. CUNIFFE The following resolution was presented to your committee

'WHEREAS, radiologists through their organization, sponsored a bill in the 1937 New

York State Legislature known as the Kline-Todd Radiology Bill, and

"WHEREAS, such bill defined Radiology and proposed needed safeguards against the commercial exploitation of radiology, and

"WHEREAS, this bill was killed by the chairman of the Senate Committee who refused to report it out of committee,

"Therefore, Be It Resolved, that the Medical Society of the State of New York approve the principles of the Kline-Todd Radiology bill and direct the proper committee to re-introduce and support a similar measure at the 1938 New York State Legislature"

This bill defines the practice of radiology and restricts the use of the X-ray for diagnosis and treatment of disease to physicians. It protects the technician but he must be supervised by a member of the medical profession. On this account, the bill has been opposed by men outside of the profession who operate X-ray laboratories, and also by chiropractors. The committee approves the resolution asking that a similar bill be re-introduced into the 1938 State Legislature by our Legislative Committee.

I move the adoption of this report

(Motion seconded and carried.)

74 Report of Reference Committee on New Business D on resolution concerning employment of salaried physicians on contract by municipalities for medical service to home relief clients

Section 23

DR. MOTT The following resolution was presented to this committee

"WHEREAS, there is a strong tendency among public officials and welfare officers to favor the employment of physicians on salary to render medical service to welfare clients rather than to permit the patient to be attended by the physician of his choice with payment of the physician on a fee-for-service basis, and

"WHEREAS this manner of providing medical relief makes medical service for the poor a distinctly separate type of service from that available for those who are self-sustaining, constituting an intolerable discrimination against the unfortunate poor and denying them their elementary American right to choose their own medical attendants, and

"WHEREAS, such economies as may be claimed to result from such a contract system of medical relief are made possible only by exploitation of the physicians in a manner that must inevitably produce a sub-standard quality of service, and

"WHEREAS physicians serving under such contract systems are clearly violating the principle of medical ethics of the American Medical Association which forbid contracts where 'free choice of a physician is prevented' where 'compensation is inadequate to assure good medical service', or where 'there is interference with reasonable competition in a community', now,

"Therefore, Be It Resolved, that the Medical Society of the County of Westchester does hereby recommend that the Medical Society of the State of New York condemn the employment by municipalities of physicians on salary to attend home relief clients, and that the State Society sponsor legislation to amend section 84 of the Public Welfare Law in such a way as to require that medical relief be furnished by the physician of choice and compensated on a fee-for-service basis and to delete the present section enabling medical relief service by contract, and

"Be It Further Resolved, that the Medical Society of the State of New York sponsor such legislation as may be necessary to establish control over the medical aspects of medical relief service in the same way as the medical aspects of Workmen's Compensation Service are controlled"

Your Committee unanimously approves the resolution and recommends its adoption by the House of Delegates,

I so move

(Motion seconded and carried)

75 Report of Reference Committee A on resolution for memorial to A M A urging new policy for medical publicity

Section 24

DR. CUNNIFFE This resolution from the Westchester County Society reads

"Resolved, that the Medical Society of the County of Westchester does hereby memorialize the Medical Society of the State of New York recommending that it in turn immediately and urgently memorialize the American Medical Association, recommending that the American Medical Association establish a Department of Public Relations whose function it shall be to engage the most expert and talented professional public relations counsel available, this Department of Public Relations to be equipped at once with adequate financial resources to carry on a permanent campaign of publicity and advertising through the most obvious media reaching the masses of public opinion and setting forth dramatically and accurately, the story of medical progress in the United States revealing and explaining the foundations of future progress and creating an informed public will to preserve those foundations, and be it further

"Resolved, that this resolution be introduced in the House of Delegates of the Medical Society of the State of New York at the meeting of the House, May 24, 1937"

The Committee is informed by the counsel of the Society that the carrying out of the provisions of this resolution would make the American Medical Association subject to Income Tax. The Committee therefore disapproves of the resolution

I move the adoption of this report.
(Motion seconded and carried)

76 Report of Reference Committee D on New Business re Automobile License Plates

Section 30

DR. MOTT The following resolution was presented to your committee

"WHEREAS, it is the policy of the Motor Vehicle Department of the State of New York to issue distinctive license plates to members of various fraternal, social and civic groups, as may be noted by the numerous plates seen with different combinations of letters before the numbers, as ST—, AL—, QS—, AY—, and others, and

"WHEREAS there are registered, as members of the Medical Society of the State of New York, the total of 14,194 physicians for the year 1936,

"Therefore, Be It Resolved, that the Medical Society of the State of New York petition the Motor Vehicle Department of the State of New York to issue special and distinctive license plates to physicians, in good standing and registered with the Medical Society of the State of New York, these plates to bear the letters "MD" or "DR", followed by the proper numbers, and

"Be It Further Resolved, that not more than one set of license plates bearing these letters shall be issued to one physician and that for use on his professional car, and

"Be It Further Resolved, that the application for special plates shall be approved by the secretary of the County Medical Society of which the applicant is a member"

Your committee recommends that these resolutions be disapproved

I so move

(Motion seconded)

DR. KALISKI In New York we have been trying to obtain special license plates for physicians in view of the critical traffic situation in the metropolitan area. I think it would be very useful if the House were to go on record as favoring this resolution. We have already taken steps to urge the Motor Vehicle Commissioner to do this and I believe the recommendation by this House would greatly help in bringing that about.

DR. SCHIFF I offer a substitute motion before the House, that this House endorse the substance of the resolution offered

(Motion seconded and carried)

77 Report of Reference Committee D on New Business, on resolution re John D Rockefeller contributions to medicine

Section 66

DR. MOTT The following resolution was handed to your Reference Committee

"Resolved That the Medical Society of the State of New York wishes to express to the family of the late John D Rockefeller its

appreciation of his contribution to the promotion of scientific medicine throughout the world"

We approve the resolution and move its adoption.

DR. SCHIFF I would like to move to amend so that the resolution includes the phrase "medical education" after the words "scientific medicine."

(Motion seconded and carried.)

DR. SCHIFF I would further like to amend that a copy be sent to the family and the various foundations and other philanthropic enterprises of the late Mr. Rockefeller

(Motion seconded and carried.)

THE SPEAKER The resolution now reads

"Resolved, that the Medical Society of the State of New York wishes to express to the family of the late John D. Rockefeller its appreciation of his contribution to the promotion of scientific medicine and medical education throughout the world, and that the various foundations and other philanthropic enterprises of the late Mr. Rockefeller be notified of this action."

78 Report of Reference Committee on the report of the Committee on Public Health and Medical Education

See also Section 11

DR. BRITAIN The Reference Committee for consideration of the report of the Committee on Public Health and Medical Education for the past year feels that our wisest plan is to continue as far as possible its recommendations and suggestions. The chairman of this committee, Dr. Farmer, is a man who from his associations with this body and his years of experience in the management and direction of the various health activities makes him peculiarly fitted to be continued as the chairman of this committee and no better complement could be paid Dr. Farmer, than to approve and further the plans of his committee

Pneumonia

The work of Dr. Farmer's committee on the subject of pneumonia control commands the highest praise and approval. The able review of this subject in the February 1937 issue of the New York Academy of Medicine's publication "Preventive Medicine" by Dr. Peter Irving, Dr. Rufus Cole's survey of the Public Health problem in the *American Journal of Public Health* and the numerous articles as appearing in the NEW YORK STATE JOURNAL OF MEDICINE, and the *Journal of the A.M.A.* are other publications stressing the importance of the serum therapy as the only specific and rational method of combatting this disease, especially types I and II pneumonia.

The fine cooperation of our state association with the public health authorities and private foundations working for a common cause and for the public welfare is especially worthy of

note. That the initiative for this work came from our own State Society through Dr. Farmer's able direction and that of his committee, is to the lasting credit of organized medicine in this state. We should energetically improve and encourage work of this kind without stint and lend our support earnestly to further the expansion of this life saving work. Of especial commendation in this respect is the chairman's successful efforts in securing the appropriation of \$400,000 by the last legislature to further the manufacture and distribution of this serum to all the physicians of the state.

Cancer Control

Dr. Farmer in his supplementary report on the subject of cancer control has urged that the commission recently appointed by the legislature for the study of this problem in addition to the members from the Senate and Assembly and the State Commissioners of Health should include representative medical men and the setup for the work should be similar to the method used in the pneumonia control and syphilis problem. This work has been well-handled by a Joint-Advisory Committee composed of members of the medical profession and health groups.

The Reference Committee recommends the adoption of the following resolutions submitted in the supplementary report

"WHEREAS, motion picture films are being offered both free of charge and on a rental basis by organizations, commercial and non-commercial, for programs of county medical societies, and in some instances with speakers, and

"WHEREAS, some of these motion picture films carry advertising matter or propaganda to which objection might be raised,

"Be It Resolved, that the House of Delegates of the Medical Society of the State of New York, in annual session convened at Rochester, New York, this 24th day of May, 1937, request the House of Delegates of the American Medical Association to make provision for the review and classification of films and other similar material offered for programs of county medical societies, so that information regarding them may be available to County Medical Societies

"Be It Further Resolved that the delegates from New York State to the annual meeting of the American Medical Association at Atlantic City, on June 7, 1937 be instructed to present and to further the passage of the foregoing resolution"

We move the adoption of these resolutions (Motion seconded and carried.)

DR. BRITAIN In view of the fact that the program of the Committee on Public Health and Medical Education includes activities that will not be completed until July 1, and if the revision of the constitution and by-laws is adopted at the present meeting the Reference Committee recommends that the chairman of the Committee on Public Health and Medical

Education be empowered to complete the unfinished portions of the current program up to July 1, 1937

(Motion seconded and carried)

DR WIGHTMAN This meeting has been so great a success under Dr Winslow that I move you an appreciative vote on the part of this Assembly thanking him for the success of this meeting

(Motion seconded and carried)

79 Testimonial to Miss Baldwin

DR ROONEY Miss Baldwin has been retired. I hope the Society will never lose the service of her advice. She is going to have an engrossed piece of paper to hang on the wall but we feel we would like to have something a little more substantial that she could have with her all the time to remind her of the affection in which she is held by this House and by the representatives of this Society. Dr Emily Barringer has suggested that we take up a subscription and appoint a committee to purchase some memento such as a pin or whatever the committee decides upon that she may have as a constant reminder of the devotion and affection in which she is held by us.

I move that the Speaker be empowered to appoint a committee of three to take up a subscription from this House for the purchase of a suitable memento to be given to Miss Baldwin

(Motion seconded and carried.)

THE SPEAKER It gives me pleasure to act. I appoint Dr Barringer, *Chairman*, Dr Bedell and Dr Van Etten

DR KOSMAK Before we adjourn it seems to me appropriate for this House of Delegates to extend to the City of Rochester an expression of its appreciation for all that the Chamber of Commerce and other organizations of this community have done to make the Rochester meeting of this Society the great success that it is. I move you, sir, that an appropriate expression of this type be forwarded to these people by the secretary of the Society.

DR BEDELL I would like to amend the motion to particularly mention Dr Simpson

DR KOSMAK I accept.

(Motion seconded and carried.)

80 Elections

Section 82

THE SPEAKER We will now proceed to the election of officers. The secretary will call the roll of the individual delegates by counties.

The Assistant Secretary called the roll and the following Delegates responded.

Frederic C Conway, William P Howard, John J Clemmer, Jr., Lyman C Lewis, J Lewis Amster, Thomas J O'Kane, Edward R. Cunniffe, Vincent S Hayward, Jacob A Keller, William Klein, Moses H Krakow, Solomon Krell, Samuel M Allerton, George C. Vogt,

Leo E Reimann, Harry S Bull, Edgar Bieber, De Forest W Buckmaster, Reeve B Howland, Ralph H Loomis, Leo F Schiff, Daniel R. Reilly, Robert Brittain, C Knight Deyo, Aaron Sobel, Herbert H Bauckus, James H Borrell, Harvey P Hoffman, James Herbert Donnelly, Albert A Gartner, Harry C Guess, Thurber Le Win, Joseph C O'Gorman, Daniel C Munro, Sylvester C Clemans, Peter J Di Natale, Jere J McEvilly, Charles A. Prudhon, Charles A. Anderson, Albert F R. Andresen, Robert F Barber, John L Bauer, Thomas M Brennan, William Rachlin, John B D'Albora, Maurice J Dattelbaum, Benjamin Davidson, Harry Feldman, Samuel S Fischhoff, Simon Frucht, Edwin A. Griffin, Henry Joachim, Walter D Ludlum, Thomas A. McGoldrick, John J Masterson, William E. Lippold, Joseph Raphael, J Sturdivant Read, Nunzio A. Rini, Irving J Sands, Augustus Harris, F Edward Jones, Judson M Burt, Anthony J Zaia, Clarence V Costello, William A MacVay, Willard H Veeder, Edward T Wentworth, Warren Wooden, Horace M Hicks, Louis H Bauer, George A Newton, Walter P Anderton, Clarence G Bandler, Emily D Barringer, Conrad Berens, Edward C. Brenner, Samuel B Burk, J Homer Cudmore, Adolph G DeSanctis, Julius Ferber, B Wallace Hamilton, Benjamin Jablons, David J Kaliski, Frederick C Keller, J Stanley Kenney, Moses Keschner, Francis N Kimball, Richard Kovacs, Oscar L Levin, James Alexander Miller, Peter M Murray, William M Patterson, Nathan Ratnoff, Louis C Schroeder, William A Peart, Richard H Sherwood, William Hale, Jr., Edward E Powers, Andrew Sloan, John J Buettner, William W Street, Albert G Swift, Homer J Knickerbocker, M Renfrew Bradner, Moses A Stivers, Arthur I Eccleston, Ross F Wolever, Floyd J Atwell, Henry W Miller, James M Dobbins, W Guernsey Frey, Jr., Frank R Mazzola, H P Mencken, James R. Reuling, Jr., Joseph Wrana, John D Carroll, William B D Van Auker, Arthur S Driscoll, Stanley C Pettit, Stephen R. Monteith, W Grant Cooper, Robert J Reynolds, George S Towne, Frank L Sullivan, William C Treder, David W Beard, Edward M Wellbery, Glenn L Whiting, Herbert B Smith, Coburn A L. Campbell, John L Sengstack, Irving Greenberg, Arthur C Hartnagel, Norman S Moore, Frederic W Holcomb, Morris Maslon, Denver M Vickers, Ralph Sheldon, Robert B Hammond, Arthur F Heyl, Merwin E Marsland, Walter W Mott, Romeo Roberto, Louis L Klostermyer, Bernard S Strait

The following Officers were present: Floyd S Winslow, Charles H Goodrich, Guy S Carpenter, Moses A Stivers, Peter Irving, Edward C Podvin, George W Kosmak, Aaron Sobel, Samuel J Kopetzky, James M Flynn, James F Rooney, George W Cottis, Nathan B Van Etten, James E Sadlier, Harry R. Trick, Thomas P Farmer, Homer L Nelms, Frederic E Elliott, Augustus J Hambrook, William A Groat, Leo F Simpson, Terry M Townsend, Carl Boettiger, Bertran W Gifford, Leo P Larkin, Thomas W Maloney, H Wolcott Ingham

The following Ex-Presidents were present
 Martin B Tinker, Grant C Madill, James F
 Rooney, Arthur W Booth, Orrin Sage Wight-
 man, Nathan B Van Etten, George M Fisher,
 James E. Sadlier, Harry R. Trick, William H
 Ross, William D Johnson, Chas Gordon Heyd,
 Frederick H Flaherty, Arthur J Bedell, Fred-
 eric E. Sondern, Allen A Jones

81 Tellers

THE SPEAKER There is a quorum present
 and we can proceed with the election The
 Speaker announces the following tellers

Frederic C Conway	Albany
John J Masterson	Kings
Adolph G DeSanctis	New York
George S Towne	Saratoga
Aaron Sobel	Dutchess
Harry C. Guess	Eric

In the nominations for the position of first
 Vice-President, the same individual under the
 new Constitution is the president-elect, so when
 you nominate for first Vice-President, you
 are, in fact also nominating for president-elect.

In regard to the nominations for the nine
 Councilors, to facilitate matters and with your
 gracious permission, the three having the
 largest number of votes will be considered as
 elected for the longest term, the next three
 for the next longest term, and the last three
 receiving the highest votes for the one-year
 term.

82 Election of Officers

Section 80

The following Officers were elected

President-Elect and First Vice-President, WIL-
 LIAM A. GROAT, Syracuse

Second Vice-President, ARTHUR S DRISCOLL,
 St. George

Secretary, PETER IRVING, New York

Assistant-Secretary, EDWARD C PODVIN, Bronx

Treasurer, GEORGE W KOSMAK, New York

Assistant Treasurer, AARON SOBEL, Pough-
 keepsie

Speaker, SAMUEL J KOPETZKY, New York

Vice-Speaker, JAMES M FLYNN, Rochester

Trustee five-year term, JAMES F ROONEY,
 Albany

Trustee, Wm H Ross, Brentwood

Councilors, three-year term terminating 1940

THOMAS P FARMER, Syracuse

JAMES H BORRELL, Buffalo

AUGUSTUS J HAMBROOK, Troy

Councilors, two-year term terminating 1939

EDWARD T WENTWORTH, Rochester

OLIVER W H MITCHELL, Syracuse

THOMAS H. CUNNINGHAM, Glens Falls

Councilors, one-year term terminating 1938

JOHN J MASTERSON, Brooklyn

GUY S CARPENTER, Waverly

FREDERIC E ELLIOTT, Brooklyn

83 A.M.A Delegates

The following were elected for 1937-38

SAMUEL J KOPETZKY

FREDERIC E SONDERN

JAMES M FLYNN

THOMAS A. MCGOLDRICK

CHARLES H GOODRICH

GEORGE M FISHER

PETER IRVING

The following were elected Alternates for
 1937-38

EDWARD C PODVIN

ADOLPH G DESANCTIS

FLOYD J ATWELL

JAMES R. REULING

CARL BOETTIGER

JOHN BAUER (Kings)

L H BAUER (Nassau)

DR. SONDERN Many have labored hard and
 long in, or in connection with this association,
 but I believe that Dr Mitchell's Committee on
 the Revision has put in more time and effort,
 probably, than any other individual or group
 and I think they deserve a mark of apprecia-
 tion and, Mr Speaker, I so move.

(Motion seconded and carried)

DR. BEDELL I move that this House of Dele-
 gates extend its thanks to the Rochester Cham-
 ber of Commerce for having turned this build-
 ing over to the Medical Society of the State
 of New York for the entire week for the
 purpose of holding its 131st Annual Convention
 (Motion seconded and carried)

DR. ROONEY I move you, sir, that the
 Speaker appoint a committee to draw up an
 appropriate memoriam concerning the death
 of Dr James N VanderVeer, a former presi-
 dent and Dr George Leitner of Nvack

(Motion seconded and carried)

THE SPEAKER Is there any further business
 before this House?

(On motion seconded and carried the House
 adjourned sine die.)

SAMUEL J KOPETZKY, *Speaker*

PETET IRVING, *Secretary*

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LEGISLATIVE BUREAU

Final Bulletin

June 7, 1937

The Governor's thirty-day period is now completed and we are pleased to submit this final report on the bills that we have been following during the year. We are certain you will agree with us that the year has been an exceedingly busy one and that we have fared remarkably well considering the serious bills that threatened our welfare from time to time. Our success was not a happenstance, but the result of very hard work, in which we acknowledge receiving most effective and enthusiastic support not only from every county chairman but from many of those who are simply bulletin readers. We must also not forget the harmonious relationships that Dr. Lawrence developed with the legislators. One of the happiest recollections of this year's work probably will be that when bills in which we were interested were debated in either chamber of the Legislature, the debaters did not indulge in tirades against the medical profession, but, on the contrary, constructively debated the proposed measures and in a number of instances, outstanding among them being the debate on our lien bill, pointed out unsuspected weaknesses of the bill. All of the measures that we approved and were passed by the Legislature, were also approved by the Governor. May we suggest that if you share our feelings of gratitude toward the Governor and the legislators, that in an appropriate manner you let them know of it.

* * *

Senate Int. 1—social security—Chapter 15 of the Laws of 1937

Senate Int. 21, Assembly Int. 188—social security—defeated in Assembly Rules Committee

Senate Int. 47—Workmen's Compensation Law, awards—defeated in committee

Senate Int. 55, Assembly Int. 230—shipment of milk and cream into State—defeated in Senate Health Committee

Senate Int. 58, Assembly Int. 156—appropriation to pay indemnities for bovine animals killed on account of mastitis—defeated in committee

Senate Int. 59—for testing bovine animals for infectious diseases—defeated in committee.

Senate Int. 67—establishing narcotic control bureau in Department of Health—Chapter 914 of the Laws of 1937

Senate Int. 173—testimony by deposition—defeated in committee

Senate Int. 210—Public Welfare Law, providing no person or member of his family becoming patient of certain State tuberculosis hospitals shall gain settlement in a town or city until he has resided therein for five consecutive years—Chapter 73 of the Laws of 1937

Senate Int. 215, Assembly Int. 146—appropriation to pay indemnities for bovine animals killed on account of Bang's disease—defeated in committee

Senate Int. 246, Assembly Int. 275—establishing division of food in Department of Health—defeated in committee

Senate Int. 259, Assembly Int. 302—reorganization of Mental Hygiene Department—Chapter 881 of the Laws of 1937

Senate Int. 274—stamp tax on tobacco—lost on third reading

Senate Int. 298—summer vacation school camps, New York City—defeated in committee (See Assembly Int. 365 and 423)

Senate Int. 313—striking out provision exempting New York City from requirement for medical inspection of pupils—lost on third reading

Senate Int. 316—for licensing clinical laboratory technicians—defeated in committee

Senate Int. 358—nurse practice—defeated in committee.

Senate Int. 397, Assembly Int. 715—practice of physiotherapy—defeated in committee

Senate Int. 481—manufacture and sale of proprietary medicine—defeated in Assembly Rules Committee

Senate Int. 483, Assembly Int. 2280—definition of "chemist"—defeated in Assembly Rules Committee.

Senate Int. 484, Assembly Int. 854—registration of pharmacies and drug stores, owner to be licensed pharmacist or druggist—vetoed

Senate Int. 487—prohibiting sale at wholesale of poisonous or deleterious proprietary medicines except to those registered by board—defeated in Assembly Rules Committee

Senate Int. 515, Assembly Int. 927—requiring physical examination of persons admitted to prisons, etc.—defeated in committee

Senate Int. 573, Assembly Int. 1182—providing for payment of medical and hospital expenses of paid firemen injured or taken sick in performance of duty—vetoed

Senate Int 594, Assembly Int 928—creating consumers' bureau in Department of Health—defeated in committee

Senate Int 598—advertising by physicians—lost on second reading

Senate Int 600—nurse practice—defeated in committee

Senate Int. 613, Assembly Int 575—compelling immediate report by physician examining specimen disclosing communicable disease if results obtained are needed for purpose of release from quarantine or observation—Chapter 414 of the Laws of 1937

Senate Int 614—registration of births within 48 hours—lost on second reading

Senate Int 615, Assembly Int 299—prohibiting persons other than licensed physicians, dentists and veterinarians to possess or cultivate live pathogenic microorganisms or viruses without permit from Health Commissioner—Chapter 412 of the Laws of 1937

Senate Int 618, Assembly Int. 573—prohibiting possession, dispensing or sale after July 1, 1937, by a dispensary, without approval of Health Department, of any narcotic preparation described in section 428 of the Health Law—Chapter 413 of the Laws of 1937

Senate Int 666—indigent inmates of State tuberculosis hospitals to be cared for by State instead of county—defeated in committee

Senate Int. 669, Assembly Int 900—for regulation of practice of optician—lost on third reading

Senate Int 672—Workmen's Compensation Law, defining "occupational disease"—defeated in committee

Senate Int. 683, Assembly Int 471—for issuing permanent injunction against illegal practice of a profession—defeated in committee

Senate Int. 737—defining "home relief" to include drugs, medicines, etc., and relative to reimbursement for home relief and its administration—Chapter 358 of the Laws of 1937

Senate Int. 745, Assembly Int. 925—requiring public welfare officials to provide medical care for sick persons in homes when necessary, physician to be family physician—defeated in committee

Senate Int 746, Assembly Int. 1051—relative to establishment of State cancer hospitals—defeated in committee

Senate Int 755, Assembly Int. 346—changing designation of Social Hygiene Division to that of Syphilis Control—Chapter 395 of the Laws of 1937

Senate Int. 811, Assembly Int 1216—

regulating practice of hairdressing and cosmetology—vetoed

Senate Int 838—making municipalities liable for malpractice of physicians and dentists rendering gratuitous services to public institutions—Chapter 483 of the Laws of 1937

Senate Int 855—indigent inmates of State tuberculosis hospitals to be cared for by State instead of county—defeated in committee

Senate Int 876, Assembly Int. 1291—providing for class "A" multiple dwellings for hospital personnel, nurses, etc.—defeated in Senate New York City Committee

Senate Int. 915, Assembly Int. 1319—physicians' lien—lost on third reading

Senate Int 999, Assembly Int. 1308—requiring State to pay cost of maintaining indigent patients in State tuberculosis hospitals—lost on third reading

Senate Int. 1001, Assembly Int 1450—requiring State to reimburse public welfare district to extent of one-half of amount expended for medical attention and hospital care—defeated in committee.

Senate Int 1024, Assembly Int. 1514—making town responsible for home relief and medical care of defective and physically-handicapped and illegitimate children, and authorizing care of illegitimate child and mother at free boarding home or institution—Chapter 411 of the Laws of 1937

Senate Int. 1041, Assembly Int 1389—relative to coloring and labeling of food products—defeated in Assembly Rules Committee

Senate Int 1089, Assembly Int. 1487—requiring certification of qualified psychologists—lost on third reading

Senate Int. 1118, Assembly Int 1573—nurse practice—defeated in committee

Senate Int 1174, Assembly Int 1322—creating board of beauty culture in Department of Health—defeated in committee

Senate Int. 1223, Assembly Int 1672—creating New York State Mineral Springs Authority and abolishing Saratoga Springs Commission—defeated in Senate Finance Committee

Senate Int. 1228—providing hospital care and treatment for volunteer firemen injured in performance of duty—defeated in Assembly Rules Committee

Senate Int. 1317, Assembly Int 1950—practice of radiology—died on third reading

Senate Int. 1368—requiring domestic servants to furnish health certificate showing freedom from communicable or contagious disease—lost on third reading

Senate Int. 1369, Assembly Int 1605—

practice of osteopathy—defeated on Assembly floor

Senate Int. 1392, Assembly Int. 1603—appropriating \$1,000,000 as revolving fund in Department of Health for pneumonia serum—defeated in committee.

Senate Int. 1418, Assembly Int. 1325—permitting trustee or member of education board of school district to be employed as medical inspector provided he is the only qualified physician residing therein—vetoed.

Senate Int. 1444, Assembly Int. 2359—Workmen's Compensation Law, defining powers and duties of Industrial Board, etc.—defeated in committee

Senate Int. 1488, Assembly Int. 2054—providing for three optional plans for organization of county welfare departments—lost on third reading

Senate Int. 1538, Assembly Int. 1904—for regulation of practice of dispensing optician—defeated in committee

Senate Int. 1547—to provide for instruction of children with defective hearing in city and union free school districts, and appropriating \$600,000—defeated in committee.

Senate Int. 1551, Assembly Int. 2121—providing that when patients in state tuberculosis hospitals have no legal settlement, there care and treatment shall be paid by State—defeated in Senate Health Committee.

Senate Int. 1558, Assembly Int. 2115—Workmen's Compensation Law, relative to awards to owner of medical bureau or laboratory—defeated in Assembly Rules Committee.

Senate Int. 1653, Assembly Int. 2268—nurse practice—defeated in committee

Senate Int. 1654, Assembly Int. 2270—nurse practice defeated in committee.

Senate Int. 1700, Assembly Int. 2291—relative to care of the blind, to make commission responsible for hospitalization and special nursing care in indigent cases of ophthalmia neonatorum—defeated in Assembly Rules Committee.

Senate Int. 1744—nurse practice—defeated in committee

Senate Int. 1749, Assembly Int. 2312—relative to suppression of rabies in Westchester County—Chapter 649 of the Laws of 1937

Senate Int. 1806—practice of physiotherapy—defeated in Assembly Rules Committee.

Senate Int. 1851—providing for medical inspection of all school children—defeated in Assembly Rules Committee.

Senate Int. 1865—advertising by podiatrists—defeated in committee

Senate Int. 1904, Assembly Int. 2437—appropriating \$400,000 to the Department of Health for prevention, diagnosis, treatment, and control of pneumonia—Chapter 259 of the Laws of 1937

Senate Int. 1928—relative to instruction of deaf—Chapter 439 of the Laws of 1937

Senate Int. 1944—for formation of consumers' cooperative non-stock corporations for furnishing medical care—defeated in committee

Senate Int. 1945—Greater New York Charter, relative to deputy medical examiners—defeated in committee

Senate Int. 1962—Workmen's Compensation Law, relative to laboratories, medical treatment, and hospital charges—defeated in committee

Senate Int. 2027—creating commission to examine and recommend measures to improve facilities for care of hard of hearing and deaf children—Chapter 743 of the Laws of 1937

Senate Int. 2033—requiring sanitary toilet and lavatory facilities in hotels, restaurants, etc.—defeated in committee.

Senate Int. 2118—exempting physician from speed and parking restrictions while attending patient on an emergency call—lost on third reading

Assembly Int. 1—for testing bovine animals for Bang's and other infectious diseases—lost on third reading in Senate.

Assembly Int. 59—to permit old age pension recipients to have medical care in hospital or sanitarium—defeated in committee

Assembly Int. 106—social security—defeated in committee.

Assembly Int. 179, 642, 788, 813—making Department of Health agency for administering certain parts of Social Security Act—defeated in committee

Assembly Int. 196—testimony, by deposition—defeated in committee

Assembly Int. 260—for care of indigent persons suffering from motor vehicle injuries—defeated in committee

Assembly Int. 298—striking out provision exempting first-class cities from requirement for medical inspection of pupils—defeated in committee.

Assembly Int. 311—creating commission to study causes, etc. of juvenile delinquency—defeated in Rules Committee

Assembly Int. 312—for licensing clinical laboratory technicians—defeated in committee

Assembly Int. 327—marriage licenses, blood tests—defeated in committee

Assembly Int. 335—Workmen's Compensation Law, physical examination of employees—defeated in committee

Assembly Int. 355—marriage licenses, blood tests—defeated in committee

Assembly Int. 365—authorizes cities in State to establish summer vacation camps for children in parks adjacent to city and under control of State Council of Parks and appropriate necessary monies, no child to receive free instruction in excess of two weeks—Chapter 791 of the Laws of 1937

Assembly Int. 370—nurse practice—defeated in committee

Assembly Int. 423—authorizes New York City to establish summer vacation school camps for children in parks adjacent to city and under control of State Council of Parks, where study courses not exceeding ten hours a week shall be given in camp sanitation, elementary hygiene, first-aid to injured, life saving, swimming, and physical training, and authorizing City to appropriate such sums as may be necessary—Chapter 792 of the Laws of 1937

Assembly Int. 476—operators of motor vehicles, eye and hearing tests—defeated in committee

Assembly Int. 485—food handlers, health certificates—defeated in committee

Assembly Int. 503—maternity subsidy—defeated in Senate Cities Committee

Assembly Int. 513—hospital employees, hours of labor—defeated in committee

Assembly Int. 571—creates commission to study health and living conditions, etc., of urban colored population—Chapter 858 of the Laws of 1937

Assembly Int. 574—relative to issuance of certified copies of birth and death certificates—Chapter 391 of the Laws of 1937

Assembly Int. 702—relative to dental inspection of school children—defeated in committee

Assembly Int. 804—for licensing clinical laboratory technicians—defeated in committee

Assembly Int. 892—compulsory health insurance—defeated in committee.

Assembly Int. 922—definition of "chemist"—defeated in committee

Assembly Int. 934—advertising by physicians—defeated in committee

Assembly Int. 942—nurse practice—defeated

Assembly Int. 1133—amending Public Welfare Law generally—defeated in Rules Committee.

Assembly Int. 1148—requiring State to pay cost of maintaining indigent patients in State tuberculosis hospitals—defeated on floor

Assembly Int. 1167—physicians, malpractice, public institutions—defeated in committee. (See Senate Int. 838)

Assembly Int. 1179—definition of "occupational disease"—lost on third reading

Assembly Int. 1285—antivivisection—defeated in committee

Assembly Int. 1386—birth certificates, fingerprints and footprints—defeated in committee.

Assembly Int. 1399—for creation of consumers' bureau in Department of Health—defeated in committee.

Assembly Int. 1558—amendment to Hospital Lien Law enacted in 1936—lost on third reading

Assembly Int. 1585—licensing roadside cottages—defeated in committee

Assembly Int. 1650—central bureau of hospital clinics—defeated in Rules Committee

Assembly Int. 1657—Greater New York Charter, supervision of health conditions on all transit lines, etc—defeated in Rules Committee

Assembly Int. 1675—injured volunteer firemen, hospital care—defeated in committee.

Assembly Int. 1817—appropriating \$300,000 to Agriculture Department for payment of indemnities on account of bovine tuberculosis and Bang's disease—Chapter 746 of the Laws of 1937

Assembly Int. 1901—antivaccination—defeated in committee

Assembly Int. 1907—for establishment of cancer hospital sites and hospitals—defeated in committee

Assembly Int. 1995—requiring State to pay cost of maintaining indigent patients in State tuberculosis hospitals—defeated in committee

Assembly Int. 1998—indigent patients, State tuberculosis hospitals—defeated in committee

Assembly Int. 2002—creating temporary commission to consist of Health Commissioner, ex-officio, two other resident physicians appointed by Governor, three members of Assembly and three Senators, to study existing facilities for treatment and prevention of cancer and care of persons afflicted, and any other pertinent facts relating thereto, and appropriating \$15,000—Chapter 718 of the Laws of 1937

Assembly Int. 2134—nurse practice—defeated in Rules Committee

Assembly Int. 2248—Criminal Code, permitting serologic blood test to determine parentage of child, etc—defeated in Senate Codes Committee

Assembly Int. 2281—labeling of food and food products—defeated in Rules Committee.

Assembly Int. 2360—Workmen's Compensation Law, relative to medical bureaus and laboratories and payment of bills for medical care—defeated in Rules Committee
 Assembly Int. 2519—Vehicle and Traffic

Law, requiring examination by physician of person suspected of being intoxicated while driving a motor vehicle—defeated in Rules Committee

COMMITTEE ON LEGISLATION

AMERICAN BOARD OF SURGERY

In answer to the widespread demand for an agency which will attempt to certify competent surgeons the American Board of Surgery has recently been organized. This Board is a member of the Advisory Board of Medical Specialties which includes all of the boards of certification for the different medical specialties which have been already organized. Since boards were in existence for the certification of practitioners of some of the surgical specialties such as ophthalmology, otolaryngology, obstetrics and gynecology, genito-urinary surgery and orthopedic surgery it is expected that the American Board of Surgery will be responsible for the certification of general surgeons as well as those practicing in the remaining specialized subdivisions of surgery.

Acting upon the invitation of the American Surgical Association the following surgical societies cooperated in the creation of the American Board of Surgery: the American Surgical Association, the Surgical Section of the American Medical Association, the American College of Surgeons, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society. The first three of these bodies which are national in scope have three representatives on the Board. All of the other societies have one representative each. The representatives of the cooperating societies are nominated by the society which they represent and upon approval of the Board shall become members of it. The term of membership on the Board will be six years. The following were chosen to represent the cooperating surgical societies:

Dr. Everts A. Graham, Dr. Arthur W. Elting, and Dr. Allen O. Whipple—representing the American Surgical Association
 Dr. Donald Guthrie, Dr. Erwin R. Schmidt and Dr. Harvey B. Stone—representing the American College of Surgeons
 Dr. Fred W. Rankin, Dr. Howard M. Clute and Dr. J. Stewart Rodman—representing the Surgical Section of the A.M.A.
 Dr. Philemon E. Truesdale—representing the New England Surgical Society
 Dr. Thomas Orr—representing the Western Surgical Association

Dr. Robert Payne—representing the Southern Surgical Association

Dr. Thomas Joyce—representing the Pacific Coast Surgical Association

The following officers were elected

Chairman—Dr. Everts A. Graham

Vice-Chairman—Dr. Allen O. Whipple

Secretary-Treasurer—Dr. J. Stewart Rodman

Two groups of candidates are recognized for qualification by the Board. (A) Those who have already amply demonstrated their fitness as trained specialists in surgery. (B) Those who, having met the general and special requirements exacted by the Board, successfully pass its qualifying examination.

The first of these groups, the Founders Group, upon invitation by the Board will be chosen from the following: (1) Professors and Associate Professors of Surgery in approved medical schools in the United States and Canada. (2) Those who for fifteen years prior to the Board's organization have limited their practice to surgery. (3) Members of the American Surgical Association, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society, who are in good standing January 9, 1937.

All applications for the Founders Group must be received within two years of the Board's organization January 9, 1937. No candidates for the Founders Group will be considered after that date.

Requirements for those to be qualified by examination will be as follows: (1) Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the A.M.A. or graduation from an approved foreign school. (2) Completion of an internship of not less than one year in a hospital approved by the same Council or its equivalent in the opinion of the Board. (3) *Special Training*. A further period of graduate work of not less than three years devoted to surgery taken in a recognized graduate school of medicine or in a hospital or under the sponsorship accredited by the American Board of

Assembly Int 355—marriage licenses, blood tests—defeated in committee

Assembly Int 365—authorizes cities in State to establish summer vacation camps for children in parks adjacent to city and under control of State Council of Parks and appropriate necessary monies, no child to receive free instruction in excess of two weeks—Chapter 791 of the Laws of 1937

Assembly Int 370—nurse practice—defeated in committee

Assembly Int 423—authorizes New York City to establish summer vacation school camps for children in parks adjacent to city and under control of State Council of Parks, where study courses not exceeding ten hours a week shall be given in camp sanitation, elementary hygiene, first-aid to injured, life saving, swimming, and physical training, and authorizing City to appropriate such sums as may be necessary—Chapter 792 of the Laws of 1937

Assembly Int 476—operators of motor vehicles, eye and hearing tests—defeated in committee

Assembly Int 485—food handlers, health certificates—defeated in committee

Assembly Int. 503—maternity subsidy—defeated in Senate Cities Committee

Assembly Int 513—hospital employees, hours of labor—defeated in committee

Assembly Int. 571—creates commission to study health and living conditions, etc., of urban colored population—Chapter 858 of the Laws of 1937

Assembly Int 574—relative to issuance of certified copies of birth and death certificates—Chapter 391 of the Laws of 1937

Assembly Int 702—relative to dental inspection of school children—defeated in committee

Assembly Int 804—for licensing clinical laboratory technicians—defeated in committee

Assembly Int. 892—compulsory health insurance—defeated in committee

Assembly Int. 922—definition of "chemist"—defeated in committee.

Assembly Int 934—advertising by physicians—defeated in committee

Assembly Int. 942—nurse practice—defeated

Assembly Int 1133—amending Public Welfare Law generally—defeated in Rules Committee.

Assembly Int 1148—requiring State to pay cost of maintaining indigent patients in State tuberculosis hospitals—defeated on floor

Assembly Int. 1167—physicians, malpractice, public institutions—defeated in committee (See Senate Int 838)

Assembly Int 1179—definition of "occupational disease"—lost on third reading

Assembly Int 1285—antivivisection—defeated in committee

Assembly Int. 1386—birth certificates, fingerprints and footprints—defeated in committee

Assembly Int 1399—for creation of consumers' bureau in Department of Health—defeated in committee

Assembly Int 1558—amendment to Hospital Lien Law enacted in 1936—lost on third reading

Assembly Int 1585—licensing roadside cottages—defeated in committee

Assembly Int 1650—central bureau of hospital clinics—defeated in Rules Committee

Assembly Int. 1657—Greater New York Charter, supervision of health conditions on all transit lines, etc—defeated in Rules Committee

Assembly Int 1675—injured volunteer firemen, hospital care—defeated in committee

Assembly Int. 1817—appropriating \$300,000 to Agriculture Department for payment of indemnities on account of bovine tuberculosis and Bang's disease—Chapter 746 of the Laws of 1937

Assembly Int 1901—antivaccination—defeated in committee

Assembly Int 1907—for establishment of cancer hospital sites and hospitals—defeated in committee

Assembly Int 1995—requiring State to pay cost of maintaining indigent patients in State tuberculosis hospitals—defeated in committee.

Assembly Int. 1998—indigent patients, State tuberculosis hospitals—defeated in committee

Assembly Int 2002—creating temporary commission to consist of Health Commissioner, ex-officio, two other resident physicians appointed by Governor, three members of Assembly and three Senators, to study existing facilities for treatment and prevention of cancer and care of persons afflicted, and any other pertinent facts relating thereto, and appropriating \$15,000—Chapter 718 of the Laws of 1937

Assembly Int 2134—nurse practice—defeated in Rules Committee

Assembly Int. 2248—Criminal Code, permitting serologic blood test to determine parentage of child, etc—defeated in Senate Codes Committee

Assembly Int. 2281—labeling of food and food products—defeated in Rules Committee

Medical News

Albany County

RESIGNATION OF Dr Thomas Ordway, dean of Albany Medical college for twenty-two years, has been announced. He will remain as professor of medicine and will practice in Albany. Dr Robert Sydney Cunningham of Vanderbilt Medical school has been appointed professor of anatomy, and will succeed Dr Ordway as dean. Dr John A Sampson, chairman of the department of gynecology and obstetrics, and Dr Arthur W Elting, professor of surgery, also retired from the college staff July 1. Dr Sampson will continue with the college as Alden March professor of gynecology and obstetrics. Both have reached the statutory age limit.

DR ARTHUR J BEDELL Albany eye surgeon, sailed on the *Aquitania* June 30 to speak and show motion pictures before the Oxford Ophthalmological Congress July 8, 9, and 10.

Dr Bedell last year addressed the British Medical Association meeting at Oxford, England, and showed motion pictures of the interior of the eye.

After the Oxford meeting Dr Bedell will tour England and possibly visit Sweden, returning home late in August.

Broome County

A JOINT MEETING of the Broome County Medical Society, Binghamton Academy of Medicine, Endicott Johnson Medical Society, and Binghamton Psychiatric Society, was held on June 1. Dr Richard Kovacs of New York City spoke on "The Role of Physiotherapy in the Treatment of Nervous and Mental Disease."

Dutchess County

THE ANNUAL OUTING of the Dutchess County Medical society was held on June 2 at the Harlem Valley State hospital. Ferdinand A White spoke on "Workmen's Compensation Problems" at a dinner in the hospital dining hall.

Erle County

DR CARLTON R JEWETT, who had practiced medicine for forty years in Buffalo before he retired in 1922, died at his home on May 20 in his eighty-sixth year.

Livingston County

DR CHARLES VERNON PATCHIN, who died on May 30 at the age of eighty-three, had practiced medicine in Dansville fifty-six years. He retired as village health officer in 1926 after forty years' service. He was state sanitary supervisor for Livingston, Wyoming, Genesee, Monroe, Ontario and Wayne counties in 1914-15-16 and 17.

New York County

DR RUFUS COLE, head of the hospital department of the Rockefeller Institute for Medical Research, retired on June 30, the institute's board of scientific directors has announced. He had been director since 1910.

Dr Cole reached the retirement age of 65 on April 30. He was succeeded by Dr Thomas Milton Rivers, also a member of the institute's staff.

Dr Rivers is 58, a native of Georgia and graduate in medicine of Johns Hopkins University. He was appointed to membership in the Rockefeller Institute ten years ago after having met Dr Cole during the World War. At the close of the war Dr Rivers conducted studies of influenza bacilli at Johns Hopkins which resulted in the discovery of a new bacterium, *homophilus parainfluenzae*. At the Institute Dr Rivers investigated filterable viruses which led to the discovery of a vaccine for the prevention of small pox. He also developed a safe method of diagnosing parrot fever.

Dr Cole directed the energies of the hospital toward the study of common diseases which affect large numbers of persons, especially acute respiratory diseases, rheumatic fever and diseases of the heart. As a result of his work great strides were made in better understanding of pneumonia.

THE ITALO-AMERICAN Medical Association was organized on May 25, in the Parkway Hospital, 123 West 110th street Manhattan. Active membership is limited to Italian-Americans who have completed their pre-medical studies in the United States and have subsequently been graduated from Italian universities with the degree of Doctor of Medicine. Dr Natalie Colosi Wagner College professor, is general director of the Parkway Hospital.

Surgery for the training of surgeons This period of special training shall be of such character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology and biochemistry is emphasized Knowledge of these sciences as applied to clinical surgery will be required in the examination Adequate operative experience in which the candidate has assumed the whole responsibility will be required An additional period of not less than two years of study or practice in surgery (4) The candidate must present to the Board sufficient evidence of good moral character as to justify it in the belief that he will not engage in fee splitting and other dishonest practices

It is expected that the Board with the assistance and cooperation of the American Medical Association and the American College of Surgeons, will be able to increase the facilities which now exist for the adequate training of young surgeons by means of residences, fellowships, etc., of suitable hospitals

The above requirements, especially those referring to surgical training, are subject to change from time to time as the existing opportunities for training in this field of specialization may be broadened

The qualifying examination will be divided into two parts Part I, written, and Part II, clinical, bedside and practical The written part, Part I, will concern itself with general surgical problems and with the clinical application of the basic sciences of surgery to these problems This examination will cover a period of three hours each and will be held simultaneously in as many centers as are necessary to accommodate the number of applicants who are eligible Part II, is entirely oral and will also concern itself, in the main, with general surgery and, as stated for Part I clinical application of the basic sciences to the clinical problem represented In addition to this, in Part II, an examination

will be given to test the candidate's knowledge of operative surgery, X-ray plate interpretation and the principles and application of surgical anesthesia This examination will be held in as many centers as the Board may determine necessary to accommodate the eligible candidates Reexaminations will be allowed providing one year shall elapse between examinations

The fee for Group A, the Founders Group, shall be \$25 The fee for Group B shall be \$75, payable as follows \$5 for registration fee, which shall be returned if the candidate is not accepted for examination, \$20 for Part I, and \$50 for Part II The same fee will be required for each reexamination Once the candidate has become qualified, he will have no further financial obligation to the Board

This Board is a non-profit organization All fees will be used, after a reasonable amount is set aside for necessary expenses in maintaining its office, conducting examinations, etc., to aid in improving existing opportunities for the training of the surgeon

A certificate attesting to a candidate's qualifications in surgery after meeting the requirements of the Board will be issued, having been signed by its officers

Any certificate issued by the Board shall be subject to revocation by the Board at any time in case it shall determine in its sole judgment, that a candidate, who has received a certificate, either was not properly qualified to receive it or has become disqualified since its receipt

The Board shall hold its first examination (Part I, written) on September 20, 1937 All inquiries concerning applications for this examination should be received by the secretary's office promptly

Requests for booklets of information, application blanks, and other information should be addressed to the Secretary—Dr I Stewart Rodman, 225 South 15th Street, Philadelphia, Pennsylvania

INTERNATIONAL TB CONFERENCE

The Tenth Conference of the International Union against Tuberculosis, postponed from 1936, will be held in Lisbon from September 5 to 9 inclusive, under the chairmanship of Prof Lopo de Carvalho The three topics of discussion will be Radiological Aspects of the pulmonary hilum and their interpretations, Primary tuberculosis infection in the adolescent and the adult, The Open case of tuberculosis

in relation to family and domestic associates The speakers from the United States will include Dr Charles J Hatfield, Dr Henry C Sweany and Dr Robert E. Plunkett The local committee will present a program of receptions and excursions to be announced later Information regarding program, membership in the Union, etc., may be obtained from the National Tuberculosis Ass'n, 50 W 50 St, New York

The report on the cancer situation in Syracuse reveals that most Syracuse patients now travel to Buffalo to receive treatment at the state institute for cancer research. The hospitalization facilities there are limited, and Syracuse patients must make long and often painful journeys to and from Buffalo to receive treatment.

Dr Price said that many Syracuse patients should be adequately treated here, with present resources.

Ontario County

DR. JOHN A. SPENGLER of Geneva spoke on May 13 at a meeting of the Canandaigua Physicians' Club, at Brigham Hall in Canandaigua on "The Eye, the Bulletin Board of the Human Body."

Queens County

PAPERS WERE READ BY Dr I Davidsohn, blood specialist of Mt. Sinai Hospital, Chicago, and Dr William Dameshek, hematologist, of Boston before more than 200 physicians at the monthly meeting of the Williamsburg Medical Society on April 12 at the Jewish Hospital. Dr Davidsohn's paper was on "Infectious Mononucleosis, Clinic, Memetologic and Serologic," which concerns the so-called glandular fevers. Dr Dameshek's covered the diagnostic value and limitations of the sternal bone marrow biopsy, which allows for a more detailed and accurate diagnosis of obscure fevers in children.

A JOINT MEETING of the Medical Society of the County of Queens, Inc., and the Queens County Bar Association was held on April 27. The program included "Medical Jurisprudence as it Affects the Legal Profession" by The Honorable Meier Steinbrink, Justice of the Supreme Court, State of New York, "Science in Crime Detection" by Manuel E. Marten, M.D., Deputy Chief Medical Examiner for the Counties of Kings and Queens, "The Supreme Court and the President" by Max D. Steuer, Esq.

A DECREASE of eight per cent in the tuberculosis mortality rate last year has given Queens the lowest rate in the city, Dr Arthur B. Robins, superintendent of tuberculosis clinics for the Department of Health, said at a lecture in the Queens Medical Society Building on May 7.

While the average for the city as a whole was 62 tuberculosis deaths per 100,000 of population, the Queens figure was only 38,

despite an increase of $3\frac{1}{2}$ per cent in the number of reported cases, Dr Robins said.

"New subways mean new settlements, new settlements mean poorer settlements and poorer settlements mean tubercular settlements," Dr Robins asserted in discussing the extension of rapid transit in the borough.

Statistics indicate the Astoria-Long Island City district has the highest mortality from tuberculosis, he said.

THE PROGRAM of the Medical Society of the County of Queens on May 25 included papers on "Clinical Diagnosis in Gastro-Intestinal Cancer"—by John C. A. Gerster, M.D., Assistant Surgeon, Lenox Hill Hospital, Associate Surgeon, Skin and Cancer Unit of the Post Graduate Hospital, on "Malignant Bone Tumors" by Norman L. Higinbotham, M.D., Assistant Surgeon, Bellevue, Ruptured and Crippled and Memorial Hospitals, and on "Diagnosis and Treatment of Cancer of the Breast"—by William J. Hoffman, M.D., Director of Tumor Service, Queens General Hospital.

Rensselaer County

DR WILLIAM J. HOFFMAN, director of tumor service at Queens General Hospital in New York City, addressed members of the Rensselaer County Medical Society at the Health Center in Troy on May 11.

Dr Hoffman talked on "The Indications for Surgery and Indications for Irradiation in Present Day Treatment of Cancer." He illustrated his lecture with lantern slides in natural color showing characteristic cancers of different regions before and after treatment by various types of surgery, radium and X-ray.

MRS JAMES H. DONNELLY of Troy was elected president of the women's auxiliary of the Rensselaer County Medical society at an organization meeting held recently at the home of Mrs. Stephen H. Curtis at 6 Belle Avenue, Troy.

Other officers were elected as follows: Mrs. Stephen H. Curtis, president-elect, Mrs. B. T. Baker, and Mrs. John D. Carroll, vice presidents, Mrs. David W. Houston, Jr., recording secretary, Mrs. V. C. Jacobsen, corresponding secretary and Mrs. Edward M. Welles, Jr., treasurer. Meetings of the auxiliary will be held monthly.

Richmond County

SYMPTOMS WATCHED for in students under the present health education program in the high schools were described at the May

THE SOCIETY OF MEDICAL JURISPRUDENCE, at its meeting on May 10 at the New York Academy of Medicine, listened to an address on "The Value of Nonpartisan Expert Testimony" by Ramsey Spillman, M D

Niagara County

DR LEON J LEAHY, of Buffalo, was the speaker at a meeting of the Niagara County Medical Society on May 11 in the Children's building of the Niagara county sanatorium, Lockport. Dr Leahy's subject was "A Resume of Surgical Treatment of Tuberculosis." Dr Donald R McKay, of Buffalo, led a discussion following Dr Leahy's address.

Oneida County

DR GEORGE F CAHILL of New York Mills spoke on "Diseases and Injuries of the Genito-Urinary Tract" before the Utica Academy of Medicine on May 20.

THE UTICA MEDICAL CLUB met on May 13 at the home of Dr W B Roemer. A scientific paper, "Affections of the Femoral Epithysis," illustrated with X-ray pictures, was read by Dr C H Baldwin. Refreshments were served. It was announced that business meetings would be resumed in October. A club outing was enjoyed on June 3.

Onondaga County

NATIONAL RECOGNITION was given the maternal welfare campaign of the Onondaga Medical Society when it was cited by the awards committee of the social work publicity council as one of the "distinguished events of 1936-37 in the field of public health education."

Awards are made annually by the social work publicity council for outstanding pieces of social work interpretation on public health education. The maternal welfare campaign in Onondaga County was one of eight programs selected from the entire United States.

The maternal welfare campaign was instituted in September of last year and had previously been cited by the Maternity Center Association of New York, the association using the local campaign as the basis of a booklet which was distributed to 7,000 health centers throughout the United States.

THREE ADDRESSES were given at a meeting

of the Syracuse Academy of Medicine at the University Club on May 18.

Dr B C Doust spoke on "What's New About Whooping Cough," Dr E M Neptune on "Fractures of the Hip," Dr E C Reifenshtein on "Lymphosarcoma of the Gastro-Intestinal Tract." A discussion was led by Dr J Howard Ferguson.

RECOMMENDATIONS directed toward a more adequate cancer control program for Syracuse were made on May 6 before the health and hospital division of the community chest council by Dr George Price, chairman of the division's special cancer committee.

Pointing out that cancer ranks as second largest cause of death in the city and county, Dr Price said death rates from cancer have tended to increase here. In 1912 cancer claimed 57 per cent of all Syracuse deaths. In 1936 the toll was 129 per cent of the city's total deaths.

Chief among the recommendations made by the chest and council division were:

That every hospital be encouraged to maintain "tumor clinics" in conformity with American College of Surgeons' standards, or their equivalent, and that such clinics be open to ambulatory patients, not in need of hospital care.

That further study be given to the problem of obtaining needed funds for clinic equipment, compensation, radium treatments.

That the Onondaga Medical Society form a cancer clinical conference, composed of representatives of hospitals having tumor clinics, which shall serve as a co-ordinating body for the exchange of information and study of scientific phases of cancer clinical work.

That all programs of public and private health and other agencies be encouraged to include public education in all phases of cancer, and the need of early diagnosis and treatment.

That conferences take place with officials regarding more adequate compensation for treatment of dependent cancer patients.

That the health and hospital division cancer committee, enlarged to include all members of the Onondaga Medical Society cancer committee, be continued to study cancer conditions and needs in the city and county.

Dr Price said that Dr Thomas P Farmer, regional director of the American and State Cancer society, had recently recommended a countywide cancer committee and in conformity with that recommendation had appointed the medical society committee, the health and hospital division committee, plus representatives of the American cancer society, as a special county committee.

Hospital News

Should the Patient be Told?

THAT IS THE STIFF PROBLEM that rises inexorably in many hospital cases, and is undoubtedly facing scores of hospital authorities at this moment. Should the patient who is not expected to recover be coddled along with cheery predictions that everything will be all right, or is he entitled as a human being to know the facts about himself?

"It won't hurt me to know the truth I want to know I have things I must see to," said a patient at the Massachusetts General Hospital in Boston to a social worker in the tumor clinic. It is an appeal that is made constantly, and cannot be brushed aside. The social worker is Miss Isobel V Duguid, and she has been in this work for five years, and so speaks from a wealth of experience. In the *Bulletin* of the American Society for the Control of Cancer she remarks that "time and effort must be given to meet the patient's need satisfactorily." More specifically "First of all, the worker must be truthful. Truthful to herself and to the patient, but cautious, judicious and ever sensitive to the patient's mood, remembering that he or she may be sick of spirit as well as of body. She must be willing and ready to talk of death, to face death as far as it is possible, with the patient, whenever it seems wise and best at the time, not in any mysterious, morbid, gloomy way, but with a spirit of confidence leading on to the attainment of peace and finally achieving the sense of freedom in victory."

She illustrates her point with the story of this interesting case

Mrs. H. had made many visits to the hospital, with her husband, who had an inoperable cancer. He was always cheerful and appeared full of hope. Mrs. H. repeatedly said, "The doctors won't tell my husband the seriousness of his condition, will they?" I assured her they would not, unless he insisted on knowing, although we believed it might be easier for him to be told if he had asked. The time came when he was no longer able to come to the hospital. His wife came to see me. She was in great distress. She

anticipated the time when she could no longer deceive her husband. She had kept assuring him he would get well and had exhorted him to have patience, as the doctors were doing all they could for him, but it would take time. The days and weeks were passing slowly for the family. They dreaded his continual questionings and they feared how he would accept the truth.

One day I called on them. They had a comfortable and happy home and were active church members. Mr. H. was alone with his son who was carrying on his father's business. When Mr. H. and I were left alone, he turned quickly to me, saying "Miss D., you know what the doctors know. You know all about my case. Am I going to get well?" I was not surprised at the question but how to answer it was the important thing.

I said nothing for a short while, then quietly said "Mr. H. you know as well as I do." That was enough. We both knew the truth. Again the question arose. Could he accept it? He did, for his first rejoinder was, "I knew it. But why would they not tell me the truth? I want to live but I am willing to die. I dread the suffering. I hate to leave my family. Alice has been a good wife."

He hated the separation but believed it was only for a time. I tried to explain to him why the truth had been kept from him. He understood that people had meant well by trying to shield him from the facts. We talked of life and death and something of our beliefs. He was an intelligent man, he was brave and ready to face the future, whatever it held. He thanked me repeatedly for having told him the truth.

The following day I called the family on the telephone and learned that my visit had been a very satisfactory one from their point of view. They told me the tension had gone. There was a feeling of relief after the first few hours, that the truth was known to all. I called at the home a week later. It was evident a change had come.

There was a joyous note in the household, a feeling of quiet resignation and acceptance of the inevitable. Mrs. H. came outside with me and said her husband spoke freely of the future and it was such a relief not to have to lie to him all the time. I learned later that he lived only a few weeks and passed on quietly without suffering. Surely he had

meeting of the Richmond County Medical Society by Miss Dorothy R Zirbes, instructor in health education at Port Richmond High School. A symposium on fractures and X-ray work was conducted by Dr Arthur S Driscoll, assisted by Dr Lynn H Halbert, Dr Frederick M Schwerd and Dr M B Radding.

Rockland County

VERBAL BOUQUETS for the Woman's Auxiliary of the Rockland County Medical Society and suggestions as to ways in which the auxiliary may be of greater service marked the address given before that body at a luncheon and meeting held at the Blue Hills Country Club, Pearl River, on May 12, by Dr George M Richards of Stony Point, former president of the Rockland County Medical Society, and chairman of the advisory board of the auxiliary, as reported in a Nyack paper.

If the auxiliary can carry on as it has started, it will be of great assistance to the Medical Society, Dr Richards stated.

Mrs S W S Toms, president of the auxiliary, called a special luncheon meeting on June 16 at Zukor's, in New York City.

DR GEORGE A LEITNER, director of surgery at Nyack Hospital of Nyack, N Y, and at Rockland State Hospital, at Orangeburg, N Y, died at Harkness Pavilion of the Columbia Presbyterian Medical Center on May 18. He was seventy-two.

For many years, Dr Leitner was a leader of the Democratic party in Rockland County, serving as a state and county committeeman and as a delegate to the Constitutional convention at Albany in 1916. Recently, however, he had taken an active stand against the New Deal policies of the Roosevelt administration.

Dr Leitner served for many years as coroner of Rockland County and as the health officer of many municipalities. He was a director of the Nyack National Bank and Trust Company and a fellow of the American College of Surgery.

The older generation remembers him as an idol of the baseball world, in the prime of the Nyack Baseball Club of 1886, on Fordham's Rose Hill team in the 80's, on the Indianapolis National League team in 1887.

Dr Leitner pitched his first two games for Indianapolis against the New York Giants in the old Polo Grounds, winning against "Smiling Mickey" Welch by an 8 to 4 score in the first and losing the

second game, 2 to 0, to the equally famous Tim Keefe, though he allowed only four hits. His professional ball career was cut short by his father's demands that he return to finish his college term.

Schenectady County

DR DAYTON L KATHAN, 80, who practiced medicine in Schenectady for 50 years, died at his home on May 13.

To "evidence our sense of loss and grief at his departure," a resolution of respect to the memory of Dr Kathan has been approved by the Schenectady County Medical Society.

"He was an outstanding pioneer in general surgery in Schenectady for a great many years," the resolution says.

"Besides his unusual professional attainments, he combined a rare charm and personality which endeared him, not only to his patients, but to the whole profession as well."

Schoharie County

THE SEMI-ANNUAL MEETING of the Schoharie County Medical Society was held in the Central School, Middleburg, on May 11. At the scientific session the following papers were read, illustrated and discussed: "Treatment of Fractures" by Dr Frederick F McGauley, Surgeon, Ellis Hospital, Schenectady, and "Discussion of the Hernia Problem" by Dr Edwin MacDonald Stanton, Surgeon, Ellis Hospital, Schenectady.—Reported by H L Odell, Secretary.

Seneca County

THE SEMI-ANNUAL MEETING of the Seneca County Medical Society was held on May 13 at the Barnes tea room in Waterloo. Dr Arthur H Payne of Rochester gave a paper on the Bureaucratic problems in general practice. The discussion was led by Dr William Eikner of Clifton Springs Sanitarium. Twenty-five physicians attended the meeting. Dr W R Holmes of Waterloo is president, Dr E F Engel vice-president, and Dr F W Lester, secretary.

Westchester County

DR HAVEN EMERSON was the guest speaker at the meeting of the Medical Society of the County of Westchester at Grasslands Hospital on May 18. He spoke on the future of the private physician in preventative and public health practice.

completed at Utica Memorial Hospital. The first floor has an emergency unit with a minor operating and dressing room and a complete new X-ray department. On the second and third floors will be sun rooms and rooms for visitors at the north end. Eight new private rooms are located on the second floor and the third floor has five wards for six persons each.

THE TRUSTEES OF THE Brooklyn Jewish Sanitarium and Hospital for Chronic Diseases will build a six-story hospital building

in East 48th street. The project will cost \$200,000.

THE NEW ANNEX OF THE Evangelical Deaconess Hospital in Brooklyn was dedicated on April 4.

ALTERATIONS AND ENLARGEMENTS are contemplated at the Dansville General Hospital. The interior is to be remodeled and improved and an addition is to be built for use as a maternity hospital.

Newsy Notes

ANY WHO HAVE BEEN TAKING dark views of America's literary future can now cheer up. The hospitals are coming to the rescue. Some years ago a self-confessed poet named A. Tennyson Coogler wrote sadly "America's poets grow fewer and fewer, I have grave fears for her literature."

But the hospitals are going to change all that. Some of them are running poetry competitions among the patients, and we can look for burgeoning geniuses any time now. (That's the poetical word for budding.) The Sea View Hospital, on Staten Island, has just had a poetry contest, with one prize for grown-ups and another for the youngsters. One of the prize poems by the younger set was entitled "My Little Puppy," written by Miss Jennie Morelli, aged sixteen. It runs:

One time a fat little puppy was born
With a nose like a shrimp and a tail like a thorn

When given his dinner of chopped-up meat
He would step in the dish with his two front feet,

And when he finished eating it all
His tummy would feel like a cottonball

Second prize in the young people's group went to William Sawyer for his poem "The Canary." He told Miss Reynard that he "could write a lot of poems and if she waited a minute he would write another."

JEROME F. PECK, Superintendent of the Binghamton City Hospital, figures that the doctors gave nearly \$250,000 worth of free service in the hospital last year, based on the minimum rates of the Broome County Medical Society.

Using the minimum scale, he figured it this way:

327 major operations	\$49,050
706 minor operations	35,300
293 deliveries in maternity	14,650
That totals	\$99,000

But that's not all. The records also show 48,435 medical and post-operative calls. They add up to \$145,305 and the total goes to \$244,305. That's minimum. Another year it may run to \$300,000 or more.

. . .

MEADOWBROOK HOSPITAL, which operated at a loss of \$2,322 in February, showed a profit of \$1,328 in March.

. . .

FINAL ARRANGEMENTS HAVE BEEN made to develop a hospital insurance plan in Elmira. A certificate of incorporation for the "Southern Tier Hospital Service Association" will be filed at an early date. Thirty directors will be chosen to execute the plan. The board of directors will be composed of eight representatives from the Arnot-Ogden Hospital, eight from St. Joseph's Hospital, four from industry, three from the Medical Society, one from the Association of Commerce, one from the Retail Division of the Association of Commerce, one from the Central Trades and Labor Assembly, and four at large.

. . .

AN INCREASE OF almost six hundred per cent in patients using the three-cents-a-day hospital plan of the Associated Hospital Service was noted in the March report of the Greenwich Hospital. The number using the service was 68 per cent of the entire hospital patient population, as com-

gained the peace which passeth all understanding and won the victory

The worker has found from her contacts and experiences with individuals having advanced malignant disease that it is often a definite release for the patient to have someone outside the immediate family to talk with, truthfully and frankly, someone who fully understands him and realizes that he is suf-

fering mentally, in solitude, someone who feels he knows the truth, but that he has not as yet been articulate about it. Then, she is strongly convinced it is well to face the facts, to give the patient every opportunity to talk freely, even to help open the way, so that his pent up feelings may be released and so that, step by step, fearlessly, he may face the inevitable

Improvements

AN EXPANSION FUND OF \$300,000 for the enlargement of the Potts Memorial hospital, at Livingston, was voted at the annual meeting of the hospital's board of trustees on May 21. The board unanimously voted to enlarge the hospital and double its capacity. The \$300,000 will be used for additional building and equipment.

THE HANCOCK HOSPITAL at Hancock, N. Y., is to move at an early date into the nearby former Frederick Wheeler house on Wheeler street, which is to be remodeled and overhauled and equipped with maternity and operating divisions, in conformity with the new requirements of the State Department of Health. Mrs. Ethel Whitaker is to continue as manager, and the present name, Hancock Hospital, is to be retained.

DEMANDS HAVE OUTSTRIPPED the facilities of the Knickerbocker Hospital, in New York City, said President E. Moore Robinson at its seventy-fifth anniversary celebration, and "to meet this need, the board has decided not upon a campaign, but a steady, continuing effort to raise \$75,000 to erect a new two-story building and to equip it for clinic purposes. This is Urgent Need No. 1 of the hospital."

PLANS FOR "new and larger buildings" for Trinity Hospital on East New York Ave., in Brooklyn, are said to be in preparation.

THE NEW \$100,000 wing of St. Joseph Hospital on Broadway, Far Rockaway, housing the institution's pediatric and maternity wards, was dedicated June 6. The new wing, three stories in height, follows the architecture of the hospital. Provision has been made for thirty-five beds, thirteen of which are for maternity. In the basement, a cafeteria is located for the hospital's personnel.

A MOVEMENT TO BUILD a hospital for Kenmore and the Town of Tonawanda has been launched by the new Kiwanis Club there.

THE ODELL MEMORIAL SANITARIUM at Newburgh is looking over various sites to pick a new location.

THE YOUNG WOMENS HOSPITAL AID, of Ithaca, is giving to the Memorial Hospital there a \$395 delivery table, a \$400 sterilizing equipment, an emergency lighting unit, and beds, stands, screens, and drapes for the new children's ward. The money was raised by the annual Charity Ball.

BETH MOSES HOSPITAL, in Brooklyn, hopes to start a new building to supplement the present structure, which has become too small, according to President Werbelowsky.

IMPROVEMENTS to the culinary department are in prospect at the Nassau County Sanatorium at Farmingdale to cost around \$18,000.

AN ADDITION WILL BE made to the contagious building of the Meadowbrook Hospital in East Hempstead at an expense of some \$115,000.

COMMISSIONER GOLDWATER announces that his administration plans to spend \$8,000,000 in developing the Kings County Hospital, and that by 1940 it will be "one of the most complete municipal hospital units in the world, with rounded facilities for every phase of medical care and education."

IMPROVEMENTS COSTING \$35,000 including a three-story addition, have just been

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel Medical Society of the State of New York

Medical Care Under Workmen's Compensation Law

A case of considerable importance to organized medicine in this State has finally been passed upon by the Court of Appeals and the decision by that high court is one which should be of interest to all physicians who are in any way concerned with the medical aspects of the administration of the Workmen's Compensation Law.* The case was one which was originally instituted in the Supreme Court, New York County, and was there passed upon at Special Term by Mr Justice Shuentag when an application was made to test out the sufficiency of the complaint. The ruling at Special Term was summarized in the July 1, 1936 issue of the NEW YORK STATE JOURNAL OF MEDICINE. The plaintiff, defeated in the lower Court, appealed first to the Appellate Division, and thence to the Court of Appeals and the decision of that Court was handed down on May 25, 1937. Counsel for the Medical Society of the State of New York appeared as amicus curiae, and submitted briefs in each of said Courts.

The subject matter under consideration was the validity of certain of the 1935 amendments to the Workmen's Compensation Law restricting the rendering of medical care to compensation patients to physicians authorized under the Law, and providing for the participation by the various County Medical Societies in the administration of the Law.

The plaintiff in the case was a duly licensed physician, who at the request of defendant, the employer of an injured workman, had rendered medical care to the employee. The injured man was entitled to medical care under the Workmen's Compensation Law. The physician sued for the fair and reasonable value of his services. He was not, however, authorized to render medical care and receive payment therefor under the terms of the Act. The case reached the Court of Appeals by reason of a dismissal of the complaint by the Special Term upon the grounds it was insufficient upon its face.

The plaintiff in asserting the right to recover in spite of the amendments to the Workmen's Compensation Law, attacked

the validity of provisions summarized by the Court of Appeals as follows:

No person shall render medical care under the law without authorization by the state industrial commissioner, except emergency (first aid) care, or care of a patient in a hospital by a member of its constituted staff. A duly licensed physician may be authorized by the commissioner only upon the recommendation of the medical society of his county or of a medical board representing other duly licensed physicians or designated by the commissioner (section 13-b, subdivision 1). Any duly licensed physician may to that end apply to the appropriate medical society or board and in the event he fail of recommendation may appeal to the Industrial Council of the Department of Labor (Section 13-b, subdivision 2), which is empowered to recommend his authorization (see Labor Law, Cons Laws, chap 31, section 10-a subdivision 4-g). In general an injured employee may select to treat him any physician authorized by the commissioner (section 13-a 1). The employer shall be liable for the payment of the expenses of the treatment. Fees for medical services shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living. Recourse to the employer for payment shall be had only under the statute. Payments shall in no case be less than the amounts fixed by a schedule of minimum charges and fees to be established by the commissioner after inquiry and shall be made only to a physician or other lawfully qualified person permitted under the statute to render medical care (secs 13-a 13-f, 1). If the parties shall fail to agree as to the value of medical services, the value thereof shall be decided by an arbitration committee of physicians whose composition is defined and whose decision is made conclusive (sec. 13-g, subdiv 2). In the case of persons injured outside the state the requirements respecting selection of authorized physicians shall be inapplicable (sec. 13-b).

The Court of Appeals referred to the reasons behind the enactment of the amendments as follows:

In 1934 the governor sent to the Legislature a special message declaring the necessity for further regulation of the medical treatment and care of employees in the administration of the Workmen's Compensation Law (Cons Laws ch. 67). The subject had been investigated by a committee appointed by the governor from the memberships of accredited local medical societies. A proposed bill embodying the joint recommendations of that committee and of the

*Schild v. Outlet Embroidery Supply Co. Inc. Vol 97, New York Law Journal, p 2893

pared with 0.9 per cent in March last year. Fred J. Loase, superintendent of the hospital, predicted a rapid rise in the enrollment in the service, stating that it has been growing "by leaps and bounds" throughout the past year.

• • •

THE HORTON MEMORIAL HOSPITAL, of Middletown, has decided to give up its annual 30-day drive for funds and, instead, has engaged a professional service which will build up a list of permanent yearly contributors. Gratifying results are reported as already apparent.

• • •

THE ARTHUR B. DUEL FACIAL Palsy Clinic has been established at the Manhattan Eye, Ear and Throat Hospital in memory of the late Dr. Duel, who founded a clinic for facial palsy in the hospital in 1933 and was in charge of it until his death. Dr. Thomas G. Finkle, a former associate of Dr. Duel, is in charge of the clinic and will offer a course in the surgical technique and treatment of facial paralysis.

• • •

AT THE SUGGESTION OF Drs. S. Philip Goodhart and Benjamin Rosenbluth of the Department of Neurology, a Mental Hygiene Clinic will be opened by the N. Y. Polyclinic Medical School and Hospital, to be under direction of B. Liber, M.D., of the same department. Patients will be seen Tuesdays at 10 A.M. Its aim will be to study and treat those mentally disturbed who are still amenable to ambulatory treatment and are not in need of hospitalization.

The clinic will also pay attention to behavior problems, to faulty upbringing in children, to the exceptionally gifted and the feeble-minded. Doctors are requested to kindly cooperate.

• • •

THE GREATER NEW YORK Hospital Association was formed on May 14 at a meeting of the Hospital Conference of Greater New York and the Hospital Council of Brooklyn in the Health, Hospitals and Sanitation Building at 125 Worth Street. Approximately 100 voluntary hospitals are in the new organization.

Proposals were made at the meeting to make studies of means of obtaining increased allowances from the city for indigent patients and ambulance service. Dr. S. S. Goldwater, Commissioner of Hospitals, said after the meeting that in all probability city hospitals under his jurisdiction would also join the association. Many of them had been members of the two organizations that were merged, he said.

Willis G. Nealley, superintendent of Brooklyn Hospital, was elected president of the new group, Dr. Claude W. Munger, director of St. Luke's Hospital and president of American Hospital Association vice-president, William Seltzer, superintendent of Bronx Hospital, secretary, and George F. Holmes, superintendent of Memorial Hospital, treasurer.

The executive committee of the organization will consider the advisability of establishing a uniform schedule of working hours for nurses in voluntary hospitals, who are attempting to obtain an eight-hour day.

Events

ALUMNAE OF THE School of Nursing, the University Hospital of the Good Shepherd, returned to Syracuse from all sections of the State to join in a celebration of the fiftieth anniversary of the school's founding on May 22-24. A dance was given on Saturday evening, a religious service and a tea on Sunday, and a reunion was held at the Onondaga Hotel on Monday evening.

of Mrs. Clarence G. Bachrach. Brooklyn women will undertake the new area plan, which entails calling on every home in the borough, for the first time in the Fall when more than one thousand representatives of nineteen local hospitals and the Visiting Nurse Association of Brooklyn will take part in the campaign.

THE FIRST LUNCHEON MEETING of the new area planning committee of the women's division of the United Hospital Fund in Brooklyn was held on June 1, at the home

of THE MEMORIAL HOSPITAL Nurses Alumnae Association of Niagara Falls held its annual dinner on May 27 at the Red Coach Inn.

Across the Desk

Rocky Road of Modern Medicine in India

THE ABSURDITY OF THE CLAIM that the medical profession is "overcrowded," and that there are "too many doctors" is illustrated in reports from India. India has about 350,000,000 population and only 25,000 scientifically educated Indian physicians, yet a speaker at the last All-India Medical Conference discussed the "overcrowding" of the medical profession there. He gave the same reason that we hear alleged over and over in our own land, the tendency of young doctors to concentrate in the cities and large towns.

"If all the medical men qualifying roughly, about 1000 a year from colleges and about double that number from schools, concentrate on practicing in the large towns as more or less they are doing at present, the overcrowding and congestion in the profession, which is already existing will intensify, leading to deterioration unemployment, and misery."

The speaker was Dr. B. N. Vyas, president of the conference.

When we think of the swarming millions of India's towns and cities, harried by malaria, hookworm, cholera, and plague the idea that this handful, this wisp of physicians, are "too many," seems a bit out of line. The plain truth of the matter in India as in America, is that there are really too few doctors to care for all who are ill, but there is a lack of touch between the sick and the physician. In America there are many reasons for it, and it now looks as a result of the action of the A.M.A. at Atlantic City, as if a big effort may be made on a national scale, to bring the doctors to more bedsides where they are needed. In India, of course, deep and ancient prejudices stand in the way of Western science, and the Hakim or Vaid is called in, instead of the Indian M.D.

So the medical profession is not "overcrowded," it is the Indian mind that is overcrowded with superstitions, and overclouded with the dark shadows of primeval prejudice.

The Ancient Medical Systems

Dr. Vyas admitted that he must speak

with caution of the old Ayurvedic and Unani systems of medicine or he would himself be accused of prejudice, so he declared that he had the "highest respect" for these systems and their genuine followers. But he added rather dryly that his reverence was more or less of the same nature as that for Indian archaeology."

The old systems are suited to the temperament, spiritual feeling, and simple life of the people, but so are scores of other old customs and traditions that are melting away before the irresistible advance of Western civilization. The old-time learned urbane spiritual unselfish Vaid and Hakim are now things of the past we are told and if the old medical systems are to survive, they must be brought into modern shape. Dr. Vyas suggests that these native medicine men be required to have up-to-date scientific educational qualifications, along the line of the requirements of the basic science laws in some of our states ending with two years of clinical training.

As a matter of fact, training on these lines already exists in the Ayurvedic Faculty of Benares the Hindu University and Delhi and Lucknow Tibbia Colleges but it is "inadequate and perfunctory." What is needed is a legal standard demanding adequate knowledge and skill before the practitioner, old-style or new, is permitted to treat the sick.

Blinded by Politics

The duty of the Indian medical profession is to "convert a C3 nation into an A1 nation," declared Dr. A. Said in the address of welcome to the convention. The average expectation of life in India is only twenty-five years, against forty-seven in England, and 59.31 in America. The public are so busily engaged in political turmoil, remarked another Indian speaker, that "they are oblivious of the appalling infant mortality, lack of maternity care, continued prevalence of a large number of endemic and epidemic diseases, and the prevailing atmosphere of dirt, disease, and death."

If the people are thinking of political advancement, he added, they may well remem-

state industrial commissioner was commended to the consideration of the Legislature. The response was chapters 258 and 930 of the Laws of 1935, amending section 13 of the statute and adding thereto sections 13-a to 13-j. This case presents questions relating to the constitutional soundness of that legislation.

The mischief which the people of the state sought to eradicate was described by the governor's message in these words: "In recent years, another evil, detrimental alike to worker and employer, has developed. It relates largely to the question of medical care and treatment of the injured claimants. In many instances this treatment and care had degraded into a mere commercialized venture. Unscrupulous physicians and so-called medical clinics have operated in a way to exploit worker, employer and insurance carrier through prolonged treatment, padded bills and inferior professional service. Rebating, fee-splitting, organized solicitation of employees injured, and lifting of cases from doctors already treating them are by-products of this commercialization."

In affirming the judgment appealed from, and thereby overruling the objections to the validity of the Law as amended, the Court of Appeals in a learned opinion by Judge John T. Loughran stated in part as follows:

Plaintiff asserts that it is utterly inconsistent and, therefore, unreasonable for the state to declare a man to be a competent physician by licensing him to practice medicine and then to impose the additional requirement of a special authorization if the patient happen to be a workman victimized by accidental injuries arising out of and in the course of his employment. This amounts to saying that as among licensed doctors one must be taken to be in all cases as good a practitioner as another. We think the assertion is without support in the ordinary data of human experience, but if we are not supposed to know this to be so, then the presumption is that the Legislature inquired and found the need of special training or fitness for the treatment of compensable industrial injury and occupational disease.

An appropriate medical society or board may recommend authorization by the commissioner if it deems the applicant "duly qualified." Plaintiff objects that the judgment thus committed is unlimited with the result that due process is denied and that legislative power has been unlawfully delegated to non-governmental agencies. This criticism ignores other words of the statute which refute it. In an application for authorization, a duly licensed physician "shall state his training and qualifications" and shall agree to limit his professional activities under the law "to such medical care as his experience and training qualify him to render." He may "present to the medical society or board evidences of additional qualifications at any time subsequent to his original application." When an application is granted, "such recommendation and authorization shall specify the character of the medical care which such physician is qualified and authorized to

render" (Workmen's Compensation Law, sec. 13-b, subdiv. 2). There is here no unlawful delegation of power in violation of section 1 of article 3 of the state constitution nor is the exercise of judgment so confined obnoxious to the Fourteenth Amendment to the Federal Constitution or section 6 of article 1 of the state constitution.

The provisions designed to control the amounts to be awarded for medical services are assailed as wholly unrelated to any legitimate end of the exercise of state power. We think these are warranted as police regulations. The medical care which the employer must furnish is part of the statutory compensation of the workman. It may well have been conceived that the minimum fee requirement would effectively put a stop to unwholesome competition for opportunity to treat employees, and that it also would attract the more skillful and experienced doctors into that field. Power exists to assure full delivery of workmen's compensation to be awarded in money. Power to say that compensation in the form of medical care shall be adequate in quality is not essentially different. In the same view there was warrant for the requirement of compulsory arbitration of the value of medical services. Settlement of that fact by the varying and uneven result of ordinary litigation would perhaps in the long run impair the grade of the medical care secured to those on whose lives and safety the common welfare depends. We cannot say that there is no real and substantial relation between these limitations on the privilege to practice medicine under the law and the ends sought to be attained by the Legislature.

The exception for hospital patients and that for persons injured outside the state are denounced as arbitrary discriminations resulting in class legislation. But in one case the sufficiency of the treatment has the guaranty of quasi-official responsibility, and the other case is not fully within the control of the authorities of this state. Nor was the Legislature, acting within its proper field, bound to extend its regulation to all cases which it might properly reach.

Other objections of the plaintiff go to the validity of the amended statute under narrower commands of the constitution of the state. It is urged that voluntary medical societies are in effect made new departments of the state government in violation of sections 2 and 3 of Article V, and that compulsory arbitration of the value of medical services runs against the right of jury trial guaranteed by section 2 of Article 1. On these points it is enough to add that further discussion is foreclosed by the same fundamental law. Section 19 of Article 1 thereof provides: "Nothing contained in this constitution shall be construed to limit the power of the Legislature to enact laws for the protection of the lives, health or safety of employees, or for the payment by employers either directly or through a state or other system of insurance or otherwise, of compensation for injuries to employees, or for the adjustment, determination and settlement, with or without trial by jury, of issues which may arise under such legislation."

schools and the masses will have available just as high medical skill as the rich

The reports of the interesting addresses at this medical conference on the other side of the world, published in an Indian medical magazine called *Medico-Surgical Suggest-*

tions (Madras), afford a fleeting glimpse of the tremendous and vital problems faced by far-off members of the profession who resemble in one way a widely advertised proprietary remedy. They work while you sleep

Books

Books for review should be sent to the Book Review Department at 1315 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

The Avitaminoses The Chemical, Clinical and Pathological Aspects of the Vitamin Deficiency Diseases By Walter H. Eddy, Ph.D. and Gilbert Dalldorf, M.D. Octavo of 338 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1937. Cloth, \$4.50.

Source Book of Orthopaedics By Edgar M. Bick, M.D. Octavo of 376 pages. Baltimore, The Williams & Wilkins Company, 1937. Cloth, \$4.00.

A Manual of Radiological Diagnosis for Students and General Practitioners By Ivan C. C. Tchaperoff, M.D. Quarto of 256 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$6.00.

Why We Do It. An Elementary Discussion of Human Conduct and Related Physiology. By Edward C. Mason, M.D. Octavo of 177 pages. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$1.50.

Synopsis of Pediatrics By John Zahorsky, M.D. Second edition. Duodecimo of 367 pages, illustrated. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$4.00.

The Mind of Man. The Story of Man's Conquest of Mental Illness By Walter Bromberg, M.D. Octavo of 323 pages, illustrated. New York, Harper & Brothers, 1937. Cloth, \$3.50.

Trauma and Disease Edited by Leopold Brahm, M.D. and Samuel Kahn, M.D. Octavo of 613 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$7.50.

Memoranda of Toxicology By Max Trunper, B.S. Third edition. 16mo of 304 pages. Philadelphia, P. Blakiston's Son & Co., 1937. Cloth, \$2.00.

Medical Urology By Irvin S. Koll, M.D. Octavo of 431 pages, illustrated. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$5.00.

REVIEWED

The Control of Goiter. The Thyroid in Health and Disease By J. Thompson Stevens, M.D. Octavo of 209 pages, illustrated. New York, A. S. Barnes and Company, 1937. Cloth, \$2.50.

The author estimates that there are several million persons in the United States with thyroid disorders and with this and other thoughts in mind, he indicates in the preface that "an authoritative, yet readable book" on the thyroid should have a wide appeal.

In a book of 209 pages, the story of goiter is detailed in an easy, interesting, very readable and frequently "popular" style. In subsequent chapters, the interrelationships of the endocrines and their close association with the involuntary nervous system are freely discussed. The dominant role of the thyroid in the personality,

physique, sex, and brain is stressed. Among the many interesting and instructive chapters are those dealing with beauty and obesity, the thyroid and personality and the causes and prevalence of goiter. A chapter is given to a philosophical discussion of the thyroid and human destiny. A few careless errors have crept in but they do not seriously impair the value of the text.

Chapter XII—"Too much Iodine" is in the reviewer's opinion the high light of the book and is perhaps the most "authoritative" part. The author warns emphatically against the unqualified use of iodine in any and all forms of goiter and particularly emphasizes the dangers of self-dosing with iodine. The dangers of rendering toxic, the more or less innocuous or relatively non-toxic goiters by dosing with iodine is stressed. In commenting on the beneficial

ORDERING BOOKS

As a service exclusive to our readers books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St. N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

ber that "no nation weak in bodily health can ever attain political power," a statement with a world of significance in it. "If we are to live amongst the comity of nations on equal terms," he said, "we must raise our public health standard up to that of modern civilized countries." And there lies a big task for the Indian medical profession, and they are certainly not too many for it.

Quack Doctors and Quack Remedies

Signs are not lacking that the scientific medicine of the West is breaking its way through the barriers of prejudice and ancient ignorance. Gandhi himself, the great leader of opposition to everything Western, was operated on by an English surgeon when he had appendicitis. Another evidence that the people are turning to Western medicine is the appearance of a swarm of quacks. "Imitation is the sincerest form of flattery." If the people were not beginning to favor scientific medicine, quackery could not exist. The Indian quacks not only imitate the regular medical degrees, but make up new ones of their own, far more high-sounding, and exhibit diplomas more dazzling and highly colored than any medical school ever dreamed of. They are doing the "greatest possible harm," we are told, and "would never be tolerated in any other country."

And if imitation doctors are appearing on the scene, it is easy to believe that bogus medicines are coming too. Recall for a moment the terrific fight that is being waged, year in and year out, in the United States against worthless and noxious nostrums, and then imagine how the nostrum makers would deluge a vast market like India, where there is very little in the way of efficient inspection and regulation.

In fact, according to the President of the All-India Medical Conference, "no law exists to prevent the flooding of the country with spurious and dangerous preparations." Mixtures that would be poured down the sewer here by federal inspectors are shipped to India and sold over the counter to the gullible natives. Our own country is not guiltless, it appears. Our scalawags are not to be left behind by those of other lands. Said Dr Vyas:

The country is flooded with drugs and preparations of doubtful and even harmful properties. A large number of agencies of foreign countries like England, America, Germany,

France and Italy have been established throughout India. They flood the practitioner with volumes of high sounding but worthless literature. Their agents tour the country distributing free samples and beguiling the practitioners in persuasive language to use their very doubtful wares. The practitioner is led to confuse genuine products with spurious preparations and drugs, and thus acquires a tendency of empirical ways of treatment. No law exists to prevent the flooding of the country with spurious and dangerous preparations. Such a thing would not be tolerated in any other country. We must influence the public opinion against allowing this country to be made a dumping ground for useless and harmful products from all over the world. Immediate legislation prohibiting the importation of doubtful and harmful products is called for.

Poor Doctors for Poor People?

A rather interesting feature of the medical picture in India is the old idea that the poor man can get along with a poor doctor. This idea even went to the point where second and third rate doctors were turned out for service to the common people. "Why the diseases of the poor classes need a doctor with lesser qualifications passes understanding," declared Dr Vyas, and "the system of turning out medical men with a lower standard of medical education is pernicious and obsolete." It used to be said that "the Sahib needed a Doctor Babu to look after the natives," and despite all the other reforms, this old system "has been left untouched."

Proposals to raise the standards of certain medical schools are met by the plea that "there is still a demand for cheaper medical aid." To this Dr Vyas very sensibly replies that in a poor country like India it is true that the medical service to the masses "has to be necessarily cheap, but that does not imply a less qualified doctor."

Anyone who knows the proficiency of the Indian students who go to England or come to America for their education can have no doubt that they are fully able to come up to any requirements that may be established in medical education. "Our students," proudly declares Dr Vyas, "are able to acquire the highest postgraduate qualifications of the United Kingdom and other countries without the least difficulty. They can hold their own in any open competition." All that is needed, then, is to raise the standards of the poorer Indian medical

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ENDOCRINES

Relation to Blood Disorders

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Blood changes in diseases of the endocrine glands have been a subject of investigation for many years. It seems a very good field for investigation because the bone marrow, the parent tissue of the erythrocytes and granular cells, is not under nervous control and must therefore be influenced exclusively by chemical and hormonal agencies. Nevertheless the findings of different schools of investigators have varied a great deal and much contradictory evidence has been accumulated. Some authors insist that in all disorders of the internal secretions there is a relative and absolute lymphocytosis, while others say that there is usually a leukopenia and an eosinophilia. There has been just as much confusion about the changes in the coagulation time in these disorders. Of course, differences in technic of doing the coagulation time may account for some of these discrepancies. Blood viscosity determinations have also been subject to very varied interpretations. The morphological study of the leukocytes has brought forward a group of investigators who feel that there is such a thing as a "lymphatic constitution" and Bauer insists that the high lymphocyte count with the reduction of the neutrophil percentage can be considered a degenerative leukocyte picture reflecting a degenerative constitutional type.

Amidst all this confusion it is difficult to find clear-cut blood changes in the various endocrine disorders and it is with some misgiving that I attempt to describe the blood findings which are thought to be associated with the more common disorders of the endocrine system. Following this I will take up the blood dyscrasias.

Addison's disease In advanced cases there is usually a secondary anemia with a lymphocytosis.

Multiglandular syndromes A marked secondary anemia is usually present in advanced cases.

Adiposity There is usually an increase in lymphocytes.

Disorders of the genital organs In animals castration results in a reduction of the hemoglobin and red blood cells with leukopenia and sometimes a relative lymphocytosis. Injection of ovarian extract in castrated females has caused a reduction of this lymphocytosis.

Increase in lymphocytes, and occasionally monocytes has been found in eunuchs.

Thymus Removal of the thymus in animals does not produce much change in the blood, aside from a lymphocytosis.

Parathyroids Removal of parathyroids will often cause an increase in the red blood count.

In attacks of tetany this is also the

effects of iodine prophylaxis in goiter districts where the endemic simple colloid goiter with its iodine deficiency predominates, he points out the necessity for accurate diagnosis and the differentiating between "prevention" and "cure." Furthermore, he warns against giving the pregnant woman iodine unless she presents real evidence of a subfunctioning thyroid gland. This chapter alone would seem to establish the merits of the book.

In the reviewer's opinion, the chapters dealing with diagnosis and treatment are the least impressive. Among other things, he cannot share the author's faith in x-ray treatment.

This inexpensive book will make good collateral reading for anyone interested in the thyroid.

ARTHUR GOETSCH

Taylor's Practice of Medicine By E. P. Poulton, M.A. Fifteenth edition. Quarto of 1136 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$8.50.

This text book of medicine appears in its fifteenth edition. It seems to hold the same relation to the medical student in England as Osler's practice of medicine in the U.S. They seem to run a parallel course, Taylor's first edition appeared in 1890, Osler's in 1892, Taylor's last edition, 1936, is number 15, Osler's, 1935, is number 12. The book is edited by E. P. Poulton assisted by five collaborators. In this respect it enjoys the advantage of greater authoritativeness and a more varied presentation that is missing in a one author volume.

The more detailed consideration of diseases of the nervous system, of the skin, and of the tropics is permitted because of the definitely smaller type used. This makes the reading more difficult, and is harder on the eyes of the student.

Infectious diseases is introduced by a discussion of the nature of infection. This is followed immediately by a chapter on pyrexia. The result of these introductory chapters has a very definite effect in stimulating an interest and arousing a curiosity to apply the information thus obtained to particular diseases.

Generally there is a tendency to summarize the morbid anatomy instead of a freer discussion of it. It surely is not presented in a manner to be of much help to the student who is beginning the study of disease.

This tendency may be excused on the basis that the pathology of diseases under discussion has already been covered elsewhere. For example the morbid anatomy of influenza is discussed in one paragraph of eleven lines. Those who have experienced pandemics and epidemics feel strongly the

inadequacy of this description. Scattered throughout the book are 71 plates, 16 of which are colored. The number of illustrations contained in the text is an agreeable departure from the average book.

Note is taken of the extensive treatment of diabetes mellitus. It is as interesting as it is instructive. The bibliography following each group of diseases is an additional feature. This work further possesses the characteristic, to a degree the peculiar property of the English textbook, in that it is easy reading.

All in all, this is an acceptable textbook of medicine and can be heartily, in fact enthusiastically, recommended.

SIMON R. BLATTEIS

The Life and Convictions of William Sydney Thayer, Physician. By Edith Gittings Reid. Octavo of 243 pages. New York, Oxford University Press, 1936. Cloth, \$2.50.

This is a biography of a famous and internationally known clinician during the early period of the development of the Johns Hopkins Medical School and Hospital.

Dr. William S. Thayer, who came from New England stock, had a most intellectual background. His father, James Bradley Thayer, was a professor of law at Harvard for many years, and his brother, Ezra, became dean of Harvard Law School. He studied at Harvard himself, was elected to Phi Beta Kappa and received his A.B. in 1885. At the Harvard Medical School, he came directly under the influence of Dr. Reginald Fitz, who interested him greatly in the study of pathology. His postgraduate work was accomplished in Berlin and Vienna, particularly under Virchow and Ehrlich.

On his return to his native land and after a short sojourn in Boston, he was invited to Johns Hopkins and received an appointment as assistant to Dr. William Osler. He maintained his connection with that institution for the rest of his life, advancing through all the grades from an assistant to a full professor of medicine.

The most interesting chapters of the biography are based on extracts from a diary kept by Dr. Thayer while he was a member of a Red Cross unit in Russia during the period of transition from the Kerensky to the Bolshevik regime and later in France as Director of General Medicine for the American Expeditionary Forces.

After the Armistice, he returned to Baltimore and took charge of the teaching facilities of the Johns Hopkins Medical School. He performed interesting work as an investigator and teacher.

The book is well written, unusually interesting and highly recommended.

WILLIAM RACHLIN

iron is absorbed best in an acid medium. In most cases iron must be kept up indefinitely. Whether or not glandular therapy can restore normal iron metabolism is still a subject for further investigation.

Pernicious anemia At present pernicious anemia is thought to be the result of a lack of specific secretion of the stomach. This secretion interacting with other elements, produces a substance which is stored in the liver and aids in the maturation of the red cells. If this intrinsic substance is insufficient the fully formed P A factor is deficient and anemia develops. The intrinsic substance is secreted by the pyloric glands and to certain extent by Brunner's glands in the duodenum. The cause of this failure to secrete intrinsic factor is unknown but many observations would suggest that there is some constitutional or endocrine factor involved.

Agranulocytosis In many cases of agranulocytosis no etiological agent can be found. It occurs most frequently in elderly women in whom there is some evidence of constitutional exhaustion. A recent study of 8000 elderly women has shown that a large number suffered from a chronic state of agranulocytosis with a leukopenia and a general feeling of fatigue. This chronic deficiency of the bone-marrow may in some way be related to a deficiency of the other endocrine organs.

Aplastic anemia Many cases of aplastic anemia occur as the result of toxic action on the bone-marrow. Salvarsan, heavy metals, and benzol are well-known etiological agents. Other cases are seen however in which no etiological agent can be found. The bone-marrow simply stops functioning. The chemical or hormonal stimulus to erythropoiesis and leukopoiesis is lacking and typical aplastic anemia develops. In most of the cases nothing can be done to help the patient. Transfusions, liver extract, iron, etc., are to no avail and death usually occurs as the result of intercurrent infection. Here again we are forced to think of constitutional and glandular causes.

Hemorrhagic diseases In discussing the hemorrhagic diseases such as hemophilia, purpura, congenital hemolytic anemia, etc., we are certainly faced with

constitutional factors. Purpura is supposed to be connected with splenic malfunction or with some anaphylactoid changes. Snake venom and splenectomy are of value in some cases. In others, in spite of these measures the bleeding continues and the platelets continue to be destroyed. Hemophilia and hemolytic jaundice are hereditary and present, on the one hand, the constitutionally different platelets, and on the other the spherical microcytes. Endocrine factors must play important roles in these hereditary and constitutional conditions.

Polycythemia and Leukemia I wish to speak of these two conditions together because they have many points in common and cases of polycythemia have occasionally ended up as leukemia. Much literature has come to the fore which considers these conditions as the result of a disturbance of correlation of the glandular mechanism. While I do not agree with this concept, but rather lean to the neoplastic theory of leukemia, I think that it is of interest to present the arguments of those in favor of this theory.

Ziegler and his followers have insisted that the leukemias should be considered as disturbances of the hormonal regulation of leukopoiesis. Their arguments are as follows. In the embryo there is first an enormous development of myeloid cells. In the latter period of embryonic life, the lymphatic system begins to develop and the myeloid cells commence to recede. After birth and in the young child, the lymphatic system dominates, as shown by the lymphocytosis in the peripheral blood and the greater frequency of lymphatic leukemia in children. As puberty approaches, with its changes in the organs of internal secretion, the thymus and other lymphatic tissues go into a stage of involution and the lymphocytosis diminishes.

The bone-marrow which is apparently not regulated by nerve fibers, must therefore be regulated by chemical or hormonal influences which at one time call forth a myeloid development and later a lymphatic development. It is therefore easy to see that a disturbance in the internal secretory regulation could produce an overproduction of lymphatic or myeloid tissue, with resulting leukemia.

In discussing the leukemias from a

cause in connection with a marked increase in the total and relative lymphocytes

Acromegaly There is usually an increase in the lymphocytes

Hyperthyroid The hemoglobin and red count are usually normal. The total leukocytes are normal or diminished with a relative increase in the lymphocytes. The eosinophils are usually increased. In severe cases there is not only a relative but also an absolute lymphocytosis. This not only reflects a hyper function of the lymphatic apparatus but indicates that there is a slight maturation arrest of the polys in the bone-marrow. After successful operations, the blood picture frequently returns to normal. Colloid goiter usually shows a normal blood picture.

Feeding of iodides or thyroid extract will produce a rise in the number of lymphocytes

The coagulation time is usually somewhat prolonged, but this is a subject of some dispute. Experimentally, guinea pigs fed thyroid and iodides showed an increase in the lymphocytes, a prolongation of the coagulation time, and a maturation arrest of the granular cells in the bone-marrow.

Hypothyroid In myxedema, as a result of the reduction in the metabolism, there is also a reduction in the bone-marrow metabolism, with a subsequent fall in the hemoglobin and red cells. The color index is usually over one and there is very little evidence of active blood regeneration.

Experimentally it has been found that removal of the thyroid gland is followed by poor blood regeneration. There is usually not much change in the white blood cells in hypothyroid conditions.

Pancreas The only disease affecting the blood which seems to be connected with the pancreas is hemochromatosis. Here the body seems to have lost the ability to use iron in spite of the enormous quantities of iron in the organs, hence, anemia is frequently present.

I will now briefly mention the effect of the injections of gland extracts on the blood cells.

Insulin Temporary fall in platelets

Thyroid extract A temporary rise of platelets and the appearance of young polys

Adrenalin There is usually first an increase of the lymphocytes, then of the polys. This is not constant.

At this point I wish to make some brief mention of the spleen as an organ of internal secretion. There seems to be some hormonal relation between the spleen and the bone-marrow. Removal of the spleen causes an increase in the number of young red cells in the peripheral blood and hyperplasia of the bone-marrow cells. This may mean that the spleen secretes some hormone which depresses bone-marrow function.

I now come to some of the blood dyscrasias and will attempt to show that there is some endocrine factor in most of them.

Idiopathic hypochromic anemia This disease, formerly called chlorosis is seen almost exclusively in women. In many cases it is connected with nutritional disturbances and frequent pregnancies, but in others these factors do not seem to be present and we must look for some other disturbing influence. In the earlier descriptions of chlorotic girls, frequent attention was called to the pigmentation of the skin. This is reminiscent of disturbances of adrenal function.

Many of these chlorotic girls also had colloid goiters and an abnormal increase of the fatty tissue. The sex organs were frequently hypoplastic, indicating maldevelopment of the ovaries. We can therefore say that in some cases of hypochromic anemia there is probably a functional insufficiency of the ovaries. The ovary has a marked influence on the other glands of internal secretion and a hormonal disturbance of this type could theoretically disturb bone-marrow function with its subsequent poor erythropoiesis. The anemia in these cases is usually secondary in type with a low color index and a leukopenia. Many cases have been recently described in older women. The picture is often complicated by glossitis, dysphagia, and a lack of free hydrochloric acid in the gastric contents. The treatment is very simple. Large doses of iron produce a prompt rise in the reticulocyte count and within a few weeks the anemia is markedly improved. It is important in those cases with a true achylia gastrica to administer hydrochloric acid as it has been found that

SUPRACLAVICULAR BRACHIAL PLEXUS BLOCK

An Accessory Therapeutic Measure in Arthritis of the Shoulder Joint and Allied Conditions

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Introduction

The frequently delayed response of arthritis and related conditions, particularly in the shoulder-joint, to constitutional and specific therapy, led us to seek some means of immediate relief of the local joint symptoms until general measures prove effective. The accepted use of the supraclavicular brachial plexus block by procaine in regional anesthesia, and its simple technic, suggested its possible value in the painful shoulder conditions presented at our clinic.

A series of twenty-one patients with pathology of the shoulder region, therefore, was selected in order of appearance for this method of treatment. They were ambulatory cases, with subacute or chronic disease, who gave a control history of failure to improve by the usual medical and physiotherapeutic measures prescribed in our clinic and elsewhere during a reasonable period. Extremely debilitated or senile individuals, severe cardiacs, uncontrolled diabetics, and those known to show procaine sensitivity, were excluded.

Anatomical Considerations

The brachial plexus¹ located in the posterior triangle of the neck, emerges between the scalenus anticus and medius muscles. It pursues a downward and outward course close to, and just external to, the subclavian artery. In the supraclavicular fossa, it lies rather superficially, one-three cm. in depth, depending on the amount of superficial adipose tissue, and is therefore readily accessible. The landmarks are also quite definite, the plexus occupying a closely limited area.

As it emerges between the two muscles mentioned above, and runs downward and

outward in its course under the first rib and clavicle, the plexus lies just external to the subclavian artery. At the point of blocking, it is bounded anteriorly by the clavicle, medially by the subclavian artery, and posteriorly by the first rib. The loose areolar tissue by which it is surrounded permits the injection of a considerable quantity of fluid without ill effects.

Technic

The most practical route for injection is the supraclavicular,² because at this area the brachial plexus has not yet divided, and anesthesia of all its branches may be effected. Of the methods of approach, we are describing the one we have found most desirable.

The patient sits erect on a high stool facing the operator. The chin is turned to the side opposite that being injected. The subclavian artery is now located in the supraclavicular fossa by placing the middle or index finger just over the upper surface of the clavicle at its exact midpoint, as a rule. A pulsation indicates the location of the artery as it courses downward making an angle with the clavicle. The point of pulsation is marked with an iodine soaked applicator by a vertical line extending below the clavicle and over the upper part of the thorax. This line acts as a guide in avoiding the subclavian artery. Difficulty is sometimes experienced in palpating the pulsation of the subclavian. This anomaly should cause no concern, since it indicates that the artery is protected by the clavicle and less exposed to puncture.

The exact point of injection is the angle formed by the clavicle with the subclavian artery, and slightly external to the point of pulsation. This site corresponds usually to the midpoint of the

neoplastic standpoint we have even more interesting findings. Recently Cook and Kennaway found that dibenzanthracene and methylchloranthrene will produce neoplasms when injected into animals. These chemicals are related to certain products in the body—particularly those found in the bile and in the female sex hormones. The chemical formulas of theelin and the carcinogenic agents mentioned show points of similarity. Therefore in the near future we may find that

the leukemias may be created by disturbances in the function of the endocrine organs. This disturbance would not be one of correlation as postulated by Ziegler but one of actual endocrine metabolism with the production of faulty endocrine metabolites. These substances could then irritate the bone-marrow cells, disturb their internal regulating mechanism, and initiate an uncontrolled proliferation with a resulting leukemia.

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HOT WEATHER HAZARDS

Now is the season when thousands of people will expose their skins to the sun, to gain the abundant health and vigor popularly associated with a coat of tan. Others seek the same result under ultraviolet lamps. The evidence, however, says Allen S. Johnson in *Hygeia*, that either sunlight or artificial ultraviolet light will cure the vast array of skin or systematic disorders treated by it is of the most scanty and equivocal character. Nor is it certain that sunlight is absolutely essential to health. The Eskimos of northern Greenland seem to get along quite well without any appreciable exposure to ultraviolet light, and mules employed in coal mines do not appear to suffer any ill effects as a result of being deprived of sunlight altogether. As far as normal persons are concerned, the claims that exposure to ultraviolet rays increases or improves the tone of the tissues or of the body as a whole, stimulates metabolism or tends to prevent colds have not been conclusively proved. On the other hand, great harm may be done to patients with pulmonary tuberculosis and various skin diseases by unwise exposure to sunlight. Even normal and apparently healthy persons may be made seriously ill by immoderate exposure to intense sunlight without a period of preliminary adaptation. If a sufficiently large area of the body is sunburned, as may happen when it is protected only by a bathing suit, the victim will react much as if he had suffered an ordinary burn from exposure to fire. Malaise, prostration, a high fever, and evidence of kidney derangement are not uncommon. Yet each summer sees a host of self-elected martyrs who voluntarily attempt to burn themselves to a crisp in the shortest time possible.

Because a tan is usually acquired in healthful surroundings it is erroneously assumed that the mere tan per se represents

the *modus operandi* of these healthful influences. Large areas of pale untoughened skin are suddenly exposed to an intense summer sun, which is often intensified by reflection from an expanse of water or cloudless sky. An hour passes without significant change. There is no tan and scarcely any sunburn. Yet already the skin has received sufficient radiation to cause severe and painful sunburn six hours hence. Unfortunately this is not realized, and the wretched sun worshiper settles down in real earnest to acquiring that tan which is regarded as proof of a healthful happy vacation.

Then follows an agonizing night of parched burning skin that puffs into gossamer thin blisters, which in turn break and spill their sticky contents over everything within reach. No wonder two weeks is the conventional vacation period for it is usually just about adequate for the sun worshiper to recover sufficiently to return to civilization conventionally clad.

We pride ourselves in this country on our humanitarian institutions dedicated to the alleviation of suffering, yet the same chumps get sunburned year after year. A few simple measures would save a vast amount of discomfort and some serious illness without detracting from the tan which is sought. In the first place some persons are unable to mobilize the skin pigment which constitutes tan and protects the skin from sunburn. They must learn that their only hope of salvation is to keep their shirts on. Blonds and redheads tan slowly and must be exposed for only short periods at first until their skins become accustomed to intense sunlight. Their undoing is usually a desire to get tanned in a few days so that they can give the impression they have been there all summer.

with rheumatoid arthritis, every one of the seven patients benefited from the therapy. Of the seven patients with osteoarthritis, six showed a varying degree of definite improvement. One patient with subdeltoid bursitis showed complete recovery from symptoms and disability after receiving ten injections, while two patients with subacromial bursitis, each of whom received two injections without improvement, failed to return after two weeks of observation. In refractory subacromial bursitis, when our simpler procedure fails, we propose to inject the bursa directly according to the technic of Haggart and Allen.⁴ Two patients with brachial neuralgia and subacromial bursitis combined, showed excellent recovery after long disability preceding treatment. One patient with brachial neuralgia was entirely relieved, whereas another patient with a similar condition received slight or no benefit.

In the neuralgia group, then three of the patients presenting brachial neuralgia alone or associated with bursi-

tis, made excellent recoveries, while one failed to show satisfactory response to treatment. Stubborn cases of the latter type are worthy of a trial with x-ray therapy as employed by Zimmerer and Cottentot⁵ who report a high percentage of response in a variety of neuralgias treated by radiation.

About a year after this series had been treated, the patients were sent cards inquiring after their condition and inviting them to return to our clinic for check-up. Four patients responded. One with rheumatoid arthritis answered that the injected shoulder had been comfortable, one patient with bursitis answered similarly. One patient with osteoarthritis came to request medication for occasional pain in the shoulder. Severe limitation of mobility, which had disappeared under injection, had not recurred and the former localized tenderness was almost entirely absent. Another patient with osteoarthritis had experienced practically complete relief of pain and disability for nine months. About three months before receiving our notice the pain had recurred accompanied by a slight limitation of motion which the patient had not noticed. This group of four patients represents only a small part of the series we are reporting, but does, we believe, serve as an index to the results to be expected, at least in some of these patients, and as an encouragement for more extensive trial of plexus block in the conditions enumerated.

TABLE I

Diagnosis	Cases seen	Cases of moderate to excellent improvement	Unimproved	Undetermined
Rheumatoid arthritis	7	7		
Osteoarthritis	7	6	1	
Simple bursitis	3	1		2
Bursitis with brachial neuritis	2	2		
Brachial neuritis	2	1		

TABLE II

Diagnosis	Duration of shoulder symptoms	Functional Improvement				No of injections	Period under observation
		0	SI	Mod	Excellent		
Diabetic neuritis							
Atrophic arthritis	5 Mo				"	5	3 Mo
Osteoarthritis					"		
Periarthritis (A.A.)	7 Mo				"	6	7 Mo
Brachial neuritis bursitis	8 Mo				"	4	5 Mo
Osteoarthritis	5 Mo				"	5	1 Yr
Osteoarthritis	3 Mo			"	"	2	2 Mo
Osteoarthritis	5 Yrs			"	"	2	1 Mo
Osteoarthritis	8 Mo			"	"	2	1 Mo
Atrophic arthritis	1 Yr				"	4	3½ Mo
Atrophic arthritis	3 Mo				"	6	4 Mo
Osteoarthritis	3 Yrs				"	5	6 Mo
Infectious arthritis	10 Yrs	"			"	4	6 Mo
Atrophic arthritis	8 Yrs				"	3	11 Mo
Osteoarthritis	1 Yr				"	3	11 Mo
Brachial neuritis	7 Mo				"	2	2 Mo
Bursitis-subdeltoid	6 Wks	"			"	4	1 Mo
Infectious arthritis	2 Mo				"	10	4 Mo
Atrophic arthritis	8 Yrs				"	5	3 Mo
Bursitis-subacromial	4 Wks				"	1	2 Mo
Bursitis-subacromial	7 Mo				"	2	2 Wks
Bursitis-subacromial brachial neuritis	1½ Yr			Undetermined	Undetermined	2	3 Wks
						4	3 Mo

clavicle A wheal is raised at this point with one per cent procaine solution while drawing the skin down over the clavicle A needle about five cm long and 22 to 23 mm gauge is inserted through the wheal The needle is then best directed at right angles to the skin for half to one inch, when it will strike the first rib Having hit the rib, the needle is gently moved upward and medially to elicit paresthesia which indicates location of the plexus Slight resistance is offered by the cervical fascia, but as soon as this tissue is passed, the needle-point lies in the space containing the brachial plexus

When the brachial plexus is engaged, the patient experiences a quick, sharp pain running down the arm, possibly down the forearm to the finger tips as well, and is instructed in advance to expect and to announce this sensation If paresthesia is not elicited, the needle is aimed toward the tip of the transverse process of the sixth cervical vertebra When the patient feels the typical, lancinating pain down the extremity, aspiration failing to reveal blood, five-ten cc of one per cent procaine are slowly injected Aspiration should be done several times in the course of the injection

When the injection is successful, the patient complains shortly of heaviness of the arm Within ten-fifteen minutes anesthesia occurs The arm becomes paretic Pin-prick elicits no pain, only a sensation of pressure The skin becomes flushed and warm in marked contrast to the opposite extremity Little benefit is to be expected unless paresthesia is achieved Any stretching or indicated passive manipulation is performed, and the extremity is now carried in a sling The dangers of the procedure are obviously puncture of the subclavian artery and of the apical pleura and lung Puncture of the artery occurred twice early in our series without any untoward effect The needle was immediately withdrawn with the first gush of blood into the syringe and, after a brief rest, the block was repeated in routine fashion without any adverse symptoms We have had no pleural or pulmonary mishaps

Method of Treatment

In this series, we treated all pain-

ful, disabled shoulders in patients not presenting contraindications already mentioned There were, as enumerated in Table I, seven patients with rheumatoid arthritis, seven with osteoarthritis, two patients with subacromial bursitis, one with subdeltoid bursitis, two with brachial neuritis and subdeltoid bursitis, two with brachial neuritis The diagnoses were established by accepted clinical signs and symptoms, and x-ray studies

Although the sites of pathological change varied in this heterogeneous group, we felt that the therapy would be directed at a common seat of relief, the brachial plexus As Table II indicates, all of these patients presented a moderate to complete loss of mobility of the involved joint and extremity, accompanied by pain of varying degree in almost every case The symptoms had existed for a period of two months to ten years Acute conditions, and those already showing improvement under other therapy, were not treated in this series No cases were included unless objective evidence of disability accompanied the symptoms In addition to pain, the objective features usually were limited mobility, atrophy, swelling, localized tenderness on pressure

Injections were administered once a week and averaged four per patient in this series Five-ten cc of one per cent novocain was the usual dose Simple manipulation was employed following injection when indicated Patients also were given exercises to perform at home

We believe direct single brachial plexus block offers a more desirable approach in the relief of shoulder pain than the multiple, periarticular method described by De Seze³ In rheumatoid disease particularly, the direct injection avoids repeated penetration of the affected periarticular tissues

Results

Improvement was considered moderate when pain ceased and a fifty to seventy-five per cent recovery of function occurred An excellent result was indicated by functional recovery of seventy-one hundred per cent Seventeen patients in the series, showed moderate to excellent improvement In the group

PROTAMINE ZINC INSULIN

Hypoglycemic Reaction

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On February 1, 1937, there appeared an announcement for the medical profession that protamine zinc insulin was commercially available. This announcement will, no doubt, be received with great enthusiasm as the physician and diabetic patient have been hearing a good deal of this new preparation from the medical and lay press. And, since some publications have declared that the discovery of protamine zinc insulin signifies a distinct advance in the treatment of diabetes mellitus a wide use of the new preparation is to be expected. It is because of this anticipated situation, that this communication is warranted. It proposes to deal with the hypoglycemic reactions associated with the application of the new preparation particularly, since the descriptive literature circulated by the manufacturers reads "Hypoglycemic reactions following the use of protamine zinc insulin are not so frequent as those following the use of unmodified insulin." Another booklet states that "although the use of protamine zinc insulin has reduced the occurrence of symptoms of insulin reactions," such reactions may still occur and furthermore that the hypoglycemic symptoms may be of longer duration.

From personal experience with this product it is my feeling that the hypoglycemic reaction induced by an overdose of the new preparation is a drawback in its general application in the ambulatory case. It is my impression that insulin shock has not been reduced but on the contrary, increased both in frequency and severity with the use of the protamine zinc preparation. True it is, that we have used the new preparation for a short period of three months and have not yet learned its pharmacologic action. This may, of course, explain the greater frequency of our hypoglycemic reactions. As a matter of fact we have observed more severe insulin reactions in the past three months, with the protamine zinc insulin than during the preceding year with the

unmodified insulin. This may have been due to the difference in premonitory symptoms and the duration of the hypoglycemia once established. With the regular insulin the reaction is mild and rapidly controlled. The patient in most instances can relieve himself of the symptoms by means of orange juice or some solid sweets. He may then tell the physician that as soon as he felt nervous and began to perspire he ate a lump of sugar and his symptoms promptly vanished. The hypoglycemic state as induced by the new preparation is severe and it may strike with great suddenness. The patient often had no warning and some patients stated that "it sneaked up upon them." There were hardly any prodromes and sweats were not always present.

Hypoglycemic reaction developed in five out of a total of fifteen patients receiving protamine zinc insulin. All of the patients, except one, were ambulatory either outpatients or office cases. Three of the patients developed stupor. In the patients who did not become stuporous, there appeared premonitory symptoms such as tingling of the extremities, twitching of the mouth, headache, slight dizziness, and some psychic manifestations. In one of these "mild" hypoglycemic reactions the symptoms persisted for nearly three hours in spite of the repeated doses of orange juice, sugar, and milk.

In the following illustrative cases only the facts pertinent to the hypoglycemic symptoms resulting from the use of the protamine zinc insulin are emphasized. Details usually given, whenever the treatment of diabetes mellitus is discussed, are purposely omitted as having no bearing on the topic under consideration.

CASE 1. A sixty-seven year old man, had had diabetes for fourteen years. He managed to carry on, on a diet of protein seventy grams, fat seventy grams, and carbohydrate 200 grams, with twenty-five

Discussion

In this study, brachial plexus anesthesia gave moderate to excellent improvement in seventeen of twenty-one patients with severe disability and pain in the shoulder. Because of the diversity of conditions in which the results are elicited, it is interesting to consider the mechanism of pain and its relation to these diseases. Like others, we have observed that in many of these patients a great part of the disability is due to prolonged reflex muscular spasm with ensuing atrophy of disuse and deformity. Relief of pain, even for a short period, in many of these cases, not only restores function but also gives the patient a freedom from the fear of pain which is undoubtedly a great factor in chronic joint disability.

The question arises how a temporary anesthetic such as procaine can bring about recovery in long-standing disease of this kind. It is perhaps difficult at first thought to accept the idea that such treatment can produce recovery in any long-standing disability. A psychic element is, therefore, suspected and cannot be ignored in the disability of these conditions as in all long-standing disease.

It must be remembered, however, as has already been pointed out, that in nerve block procedure the interruption of prolonged pain appears to have more lasting effect in the suppression of the sensory cycle than the mere duration of the anesthesia itself. The threshold of pain is thought to be elevated by such interruption of the persistent pain cycle and its reflex disturbances. As a result, the sensitiveness of the patient to the usual pain stimulus is diminished. At the same time with the temporary abolition or diminution of the sensory reflex mechanism, the tense muscles are relaxed, the joints, accordingly, are permitted greater mobility, the patient gets rest and relaxation not allowed for a long period in these chronic conditions. Such relief, if sufficiently repeated or prolonged, evidently suffices to restore normal joint function in many cases.

The plexus block exercises no specific action, of course, in the conditions with which we deal here. It is primarily an accessory measure for the local relief and control of long-standing discom-

fort. Patients suffering from chronic arthritis and allied conditions are tired and worn by their stubborn symptoms. To afford them rest by relief of pain and spasm is to furnish a basic requirement for increased resistance and recovery. The procedure so far, has demonstrated promising effectiveness for these purposes and we hope this report will encourage more extensive trial of plexus block and other forms of local analgesia for the relief of arthritis and related conditions.

Conclusions

Supraclavicular brachial plexus block with one per cent procaine in chronic arthritis and allied diseases of the shoulder is a useful accessory therapeutic measure. This method appears to be particularly valuable in those refractory cases accompanied by considerable pain and limitation of function in which the customary systemic and local measures have proved ineffective. The procedure is valuable also in those shoulder conditions in which disability is accompanied by soft tissue changes and the formation of adhesions. By its antispasmodic effect and anesthesia, the method lends itself to moderate manipulation and breaking-up of adhesions. In trained hands, brachial block should be devoid of danger.

Summary

1 Supraclavicular brachial plexus block with one per cent procaine in a group of twenty-one ambulatory patients with chronic arthritis, bursitis or brachial neuralgia proved effective in seventeen of the patients, unsatisfactory in four.

2 It is a simple procedure affording relief of pain, relaxation of muscle spasm, and improvement of disability.

3 It is a promising accessory measure in the treatment of chronic arthritis and allied conditions of the shoulder joint.

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References

- 1 Cunningham's *Textbook of Anatomy*, Fifth Ed Wm Wood & Co
- 2 Labat, G *Regional Anesthesia* Second Ed, W B Saunders Co
- 3 De Seze *Rev de Rheum* March 1936
- 4 Haggart, G E and Allen H A *Surg Cl of N A*, 15 97 1937
- 5 Zimmerer and Cottentot *Arch Electr Med* 37 20, 1937

thirteen years received thirty units of protamine zinc insulin at 11 A M. He had been receiving this dosage for about two weeks. He ate a small lunch, but a liberal dinner as his prescribed diet was about protein seventy grams, fat sixty grams, carbohydrate 250 grams. At 11 30 P M his friends noticed that he became quite playful, very talkative and acted foolishly. He removed his coat and began playing with it. He realized that something was amiss, but could not control himself. He finally left his friends to go home, but stopped on the way for orange juice. He drank two glasses of orange juice, one of grape juice, and ate two pieces of toast. He reached home at about 1 A M. Even then he was shaky, incoherent, and had slight twitching about the mouth. His sister gave him two glasses of milk and he felt better at about 2 30 A M. The reaction set in about twelve hours after the administration of the modified insulin and lasted about three hours in spite of treatment.

CASE 5 A young woman in the twenties who has had diabetes for about four years needed four doses of insulin to keep her regulated. The regulation, however, was always difficult. Two doses of insulin were substituted for the four. She was given twenty-five units of the unmodified insulin and forty of protamine zinc insulin before breakfast and dinner respectively. Before a holiday she danced a good deal and on the following morning she was found in the kitchen, playing with empty bottles and acting foolishly. Her actions were purposeless. She was accused of being drunk and was forced to go to bed. During the arguments and the struggle in getting her to bed she recovered sufficiently to suggest an insulin reaction. The treatment was then begun and she was again herself in about two hours. The reaction set in about sixteen hours after the protamine zinc insulin and lasted over two hours.

From the presentation of the data it is obvious that the hypoglycemia resulting from the use of protamine zinc insulin may appear from ten to twenty-four hours after its administration. Furthermore, it is also apparent that the duration of the reaction may be prolonged unless treated by adrenalin or intravenous medication. With the unmodified insulin, the maximum effect was anticipated in four to six hours, and if a reaction was imminent the patient had ample warning because of the tremor, nervousness, and sweats. With the onset

of these manifestations he drank some orange juice or ate a piece of sugar and in most cases recovered sufficiently to carry on until the following meal. There were some patients in whom the various stages of the insulin reaction followed each other very rapidly with resulting unconsciousness, fortunately such cases were infrequent. With the modified insulin, although it is believed that the maximum effect is reached approximately from twelve to twenty-four hours, this approximation is not at all predictable. The reaction may occur sooner, or at any time during this interval. It may strike suddenly, and in some cases totally without warning. It is stated that the patients may have feelings of uneasiness or vague discomforts, but close questioning of our patients who experienced the *severe* reactions failed to elicit any prodromal symptoms. This is an undesirable and disturbing feature, as neither the patient nor the physician can be certain when a reaction will occur—a situation not at all conducive to mental relaxation and comfort. This feeling of uncertainty is easily understood, as under practically similar circumstances, diet, and management, the patient will manifest reactions on certain days and be free from symptoms at other times. Whether this is due to the cumulative effect of the protamine zinc insulin or to the patient's improvement in tolerance is a point which more extensive clinical trial will determine. Exercise may be a contributing factor to hypoglycemic reactions as it was noted in two of our cases. However, in others it was not a contributory cause. Whatever the ultimate explanation, the fact remains that because of our unfamiliarity with the preparation, and because of our inability as yet to predict certain phenomena when using protamine zinc insulin it is imperative that we exercise the greatest caution in its application. Since the ambulatory patient cannot be observed as continuously as the hospital case it is of utmost importance to inform patients, that the development of any unusual feeling no matter how vague or trivial, demands immediate ingestion of some form of carbohydrate. The treatment furthermore should not stop there, but the patient should then take some carbohydrate containing food

units of insulin in the morning and fifteen units in the evening. The insulin was given twenty to thirty minutes before meals. On this regime he was sugar-free most of the time. He entered the hospital because of a loss of weight, in spite of the fact that he continued to increase the daily amount of insulin. A hyperchromic macrocytic anemia was found and the patient was being studied. During his hospital stay it was decided to substitute one dose of protamine zinc insulin for the two injections of the unmodified preparation.

His diet was increased to protein eighty grams, fat ninety grams, and carbohydrate 250 grams. He was also given forty-five units of protamine zinc insulin one hour before breakfast. He had remained on this regime for five days when one morning early he was found in bed, pale and cold. His eyes were fixed and he mumbled some unintelligible sounds. *He was dry and not perspiring.* The blood pressure was 130 systolic and 80 diastolic. There were no convulsions. The intern, Dr. Timpanelli, administered fifty c.c. of a fifty per cent glucose solution intravenously and the patient promptly responded. Following this hypoglycemic reaction, the protamine insulin was reduced to thirty-five units daily. However, after two days on the reduced amount he again was found in bed, stiff and comatose. He was salivating and evidently had been unconscious for some time as there was a good deal of saliva on the pillow. Again glucose was given intravenously with recovery. The patient had insulin for fourteen years and he was well familiar with the premonitory signs of insulin shock. He stated that he had no warning whatever before becoming ill. The reaction in this patient occurred about twenty-four hours after the administration of the protamine zinc insulin.

CASE 2 A fifty-nine year old female was treated for diabetes in the clinic for nearly five years. Before substituting the unmodified insulin she managed to get along on a diet of protein seventy grams, fat sixty grams, and carbohydrate 150 grams. Her insulin requirements were twenty units in the morning, five at noon, and fifteen before the evening meal, administered at the customary twenty to thirty minutes before meals. At first, ten units of unmodified and twenty-five of the protamine zinc were tried. These were given into different sites about thirty minutes before breakfast. After a short period protamine zinc insulin only was used. The diet was unchanged. For the past week she had received thirty-five units of the new prepa-

ration. She administered her insulin in the morning and then after placing some edibles on the fire she decided to rest for a while. She recalls nothing except that she awoke in the hospital. Her sister had found her unconscious, cold, drooling at the mouth, and glassy-eyed. A physician was called and he advised immediate hospitalization. She was brought to the hospital at 11 A.M. about three hours after the administration of the insulin. Her blood sugar was twenty-seven mg per 100 c.c. Dr. Meakins administered twenty-five grams of glucose intravenously, and the patient promptly regained consciousness. She was then given 200 c.c. portions of orange juice every two hours until 8:30 P.M. It is more likely that the reaction occurred about twenty-four hours after the protamine zinc insulin. The insulin taken on the morning of the reaction may have been a contributing factor. The probability is, however, that the previous day's insulin was chiefly responsible, as it is well-established that the action of protamine zinc insulin lasts for twenty-four hours and even longer.

CASE 3 A young woman of twenty-four years had had diabetes for about three years, which was controlled without any difficulty on a diet of protein sixty grams, fat sixty grams, carbohydrate 300 grams. To maintain a sugar-free urine the insulin requirement was fifteen units before the morning and ten before the evening meals. Following a severe *Streptococcus hemolyticus* pneumonia with empyema from which she made an uneventful recovery, it was necessary to increase her insulin to forty units daily in two doses—twenty-five and fifteen. One dose of thirty-five units of protamine zinc insulin was then substituted. This was given before breakfast, and she had remained on this dosage for about two weeks. On the day before the new year she took the protamine zinc insulin at the usual time, had her meals as she has been having them for the past two weeks, but in the evening joined a party of friends to usher in the New Year. The following morning she was found in bed unconscious, cold, her eyes fixed. The physician who saw her administered one c.c. of 1:1000 adrenalin hypodermically and as she failed to respond after twenty minutes an additional 0.5 c.c. was given. Following this she was sufficiently revived to continue further treatment by mouth. There is no certainty as to whether or not she was perspiring. The reaction occurred here about twenty-four hours after the modified insulin was used.

CASE 4 A young man of twenty-three years who has had diabetes for the past

BUERGI'S THEORY

Applied to the Treatment of Secondary Anemia

HENRY ALMOUR, M D, *New York City*

Buergi,^{1,2} in 1932, demonstrated that two different substances causing identical therapeutic manifestations when combined were increased in their effects if they possessed identical pharmacological points of attack. He and his followers concluded that small doses of certain substances will produce a better effect if combined than will larger doses of the individual substances. It is known, that when prescribing the coal-tar products in influenza, the combination of several will yield better results than when only one is used. Here, we have an *increased* effect because of the *similar* pharmacological points of attack. If, however, one adds to these drugs codeine and caffeine the results obtained will be far greater. This can be explained as the effect being *multipled* because of the *different* pharmacological points of attack. Since this holds true in the treatment of "grippe," it should also hold true in the treatment of other pathological conditions.

The author has selected a series of cases of secondary anemia, and has treated them with a combination of the hematopoietic drugs. Be it understood that the so-called shot-gun prescription is not advocated since it treats a number of symptoms which are manifested in one disease, whereas each and all the hematopoietic drugs attack only one symptom, *i.e.* secondary anemia.

At this time it would be advisable to review briefly the pharmacological action of the various drugs for the treatment of anemia at our disposal. The basis for the use of iron medication lies in the ability to stimulate the hematopoietic system.⁴ After leaving the liver, where iron is stored, it is received by the marrow cells whose nuclear chromatin liberates it to the hemoglobin. Iron thus becomes a "building stone for hemoglobin."⁵ Clinically pure iron, according to Schultz, aids at first, but with massive therapy, symptoms of lassitude, headache, and salivation result. He explains these phenomena as

a result of the congestive effect produced, and he is of the opinion that the anemic individual requires but little iron to obtain favorable results. Iron can be assimilated and stored in the liver, but as such it cannot be used for the production of hemoglobin. It is, therefore, of primary importance to bring about utilization of this stored iron. For this purpose Waddell⁶ found copper to be most efficacious. Compared to its ability to supplement iron in the production of hemoglobin, the heavy metals did not approach copper. Supplemental proof of this fact was furnished by Elvehjem.⁷ A diminution in the hemoglobin of day-old chicks was accomplished by dietary restrictions, and iron free of copper was fed them in an attempt to bring the hemoglobin back to normal. This met with failure. However, when small amounts of copper were added, the hemoglobin rapidly approached the normal limits. It must be remembered that copper does not function in the assimilation of iron, but acts in the conversion of iron into forms which can be utilized in the construction of the hemoglobin molecule. The administration of various forms of copper in anemias following hemorrhage led Handovsky⁸ to believe that this metal served to stimulate erythrocytic activity.

Besides serving as a mobilizer of iron and as a red cell stimulant, Hesse^{9,11} found that copper acts as a detoxifying agent to thyroxin. He observed that 4 mg of copper per kilogram of body weight compensated thyroxin poisoning in dogs. He believed that copper was of value in combating the poisonous effects exerted by thyroxin, such as, exhaustion of fat centers, hypertrophy of heart and liver, disappearance of glycogen from the liver, etc. Further, he is of the opinion that copper and iron will also aid in the treatment of Graves' disease, the action being due to the formation of insoluble, nontoxic copper thyroxin compounds.

The largest part of assimilated copper

which will be more slowly absorbed thus supplying the body with glucose in case the reaction tends to be prolonged Bread and milk are suitable for this purpose

Conclusions

1 The use of protamine zinc insulin may be associated with sudden, severe prolonged hypoglycemic reactions These may set in without any prodromes and sweats need not necessarily be present

2 The time of onset is not predictable as reactions may occur as soon as ten to twelve hours, and as late as twenty-four hours after the use of the modified insulin

3 This unpredictability of maximum effect creates a feeling of insecurity on the part of the patient and a state of apprehension on the part of the physician

4 Until more facts are gathered concerning protamine zinc insulin it is imperative to inform the patient that he

should not wait for the development of the well-known symptoms of an insulin reaction before treating himself Any vague or unusual symptom demands immediate treatment

Addendum

After this paper was submitted for publication there appeared papers by Wilder and Wright,¹ Lawrence and Archer,² and Jordan,³ drawing attention to the fact that the subject of reactions has been minimized These authors also recognized the hazard of the subtleness of a protamine zinc insulin reaction, and in their publications emphasize the importance of close surveillance of the patient

2 E 94 Sr

References

- 1 Wilder, R. M and Wright, W *Arch Int Med*, 59 329, 1937
- 2 Lawrence, R. D and Archer, N *British Med Jour*, 1 487, 1937
- 3 Jordan, W R. *Virginia Med Monthly*, 63 730, 1937

IS THE DECLINE IN TUBERCULOSIS ARRESTED?

Has the decline in the death rate from tuberculosis been stopped? Provisional mortality reports for 1936 raise this question

For many years past we have registered steady and rapid improvement in the mortality from this cause, so much so that we have been led to hope that, in the not too distant future, this disease would be relegated to a minor position among the causes of death, says the *Statistical Bulletin* of the Metropolitan Life Insurance Co Have we perhaps been over-optimistic?

Through the courtesy of State health officials the Metropolitan Life Insurance Company has received provisional mortality figures for tuberculosis for the year 1936 from 40 States Of these there were just 19 which reported a mortality for 1936 higher than that for 1935, and 19 which reported lower figures, two showed no change

Whichever way the balance will be found to tilt when final results for all the States are in, this is sure, that the margin of increase or decrease over the preceding year will be small Even if we do not have to record an actual rise, there certainly has been a definite check in the velocity of the decline in tuberculosis mor-

tality which has been going on continuously over a number of years past.

The question, then, arises as to whether the current status of the tuberculosis death rate is an aftermath of the depression Has there been an impairment in American vitality, which did not become manifest until the depression itself had lifted? Public health workers have feared that this very contingency might arise It is certain that the unfavorable tuberculosis situation which now confronts the country has not been due to any abatement in the efforts toward tuberculosis control, for there has been no let-down It is equally clear that what is now called for is an intensification of the work of those responsible for protecting the public health—and more particularly, even greater concentration on tuberculosis The record of the last 25 years in the attempt to control this disease has been so clear cut and favorable that there should now be no hesitation in bringing the effort to a successful termination But it will take years and much money and thought to do it. The present picture is an excellent corrective to any undue optimism which may have resulted from the rapid improvement in the tuberculosis situation in the last 10 years

Examination revealed an adult male of sthenic habitus. He weighed 141 lbs, and was 5'8" in height. Temperature 98.6, pulse seventy-two, and respirations twenty-four. General examination was negative. A fissure in ano was present. Blood pressure was 120/80. Urinalysis was negative. A blood count showed eighty per cent hemoglobin and 4,120,000 red cells. A diagnosis of inanition and fissure in ano was made. The patient was treated with local applications of silver nitrate to the fissure, and was advised to take sitz-baths and mineral oil. Heptogene tablets II t.i.d. was prescribed.

	Hgb	Red cells	Symptoms persist
2/4/37	84%	4 200 000	Symptoms persist
2/11	90%	4 420 000	Slight improvement.
2/18	100%	4,800 000	Marked improvement in general condition.
2/25	100%	5 110 000	All symptoms subsided. Patient weighed 145 lbs. The fissure has healed.

Comment Inanition, the result of overwork and poor hygienic conditions, produced symptoms of secondary anemia, although no anemia actually existed. The combination therapy prescribed over a period of one month alleviated the condition. The relief is probably temporary since the patient will undoubtedly suffer a recurrence unless he changes his mode of living.

CASE 2 D M, female, age twenty, was first seen on October 22, 1936 at which time she complained of pain in the right lower quadrant radiating to the back and groin and associated with nausea and vomiting. Her menstrual history was negative except for a miscarriage in July 1936. There was no history of dysuria.

Examination revealed a slightly built young adult, weighing ninety-two lbs. Temperature ninety-nine, pulse eighty, and respirations twenty-four. Blood pressure was 118/80. Head, neck, heart, and lungs were negative. There was tenderness in the right lumbar region and a definite feeling of fullness was palpated, but because of rigidity the exact nature of this could not be determined. X-rays of the abdomen disclosed a large right kidney. The left kidney was not visualized. On retrograde pyelography, the left ureter and kidney were found to be absent, and the right kidney was enlarged and ptosed producing a kink one half inch distal to the kidney. From these findings a diagnosis of congenital absence of the left kidney and ptosis of an enlarged right kidney was made. The patient was advised to wear a properly fitted support for the ptosed kidney, and she was placed on a high caloric diet.

1/20/37 No gain in weight. Patient still complained of lassitude and loss of appetite. Protomin

		insulin units V injected and high caloric diet continued	
1/28		After daily injections of protomin insulin weight increased to 101 lbs. 74% hgb 4 065 000 red cells Heptogene tablets II t.i.d. ordered	
2/4	76% hgb	4 085 000 red cells.	102 lbs
2/10	82% hgb	4 100 000 red cells	102 lbs.
2/17	88% hgb	4 350 000 red cells.	102 lbs. Protomin insulin discontinued because there was no weight increase after three weeks of this treatment
2/26	90% hgb	4 510 000 red cells	102 lbs Lassitude gone Feels well
3/1	90% hgb	4 500 000 red cells	102 lbs All symptoms subsided.

Comment It was believed that with increased weight the deposit of perirenal fat would be sufficient to hold the kidney in place. However, one is hesitant to discontinue the mechanical support in spite of the weight gain. Protomin insulin in association with the high caloric diet was responsible for the gain in weight. The combination therapy, however, raised the hemoglobin from seventy-six to ninety per cent, and for the past two weeks the patient has maintained her weight without resorting to other therapy.

CASE 3 N D, female, age twenty-eight, was seen December 11, 1936. She complained of pain in the left lower quadrant associated with a low grade temperature. She was treated five years previously for an ovarian disease. Her last menstrual period was two weeks prior to my first examination. Temperature 101, pulse ninety, and respiration twenty-four. Examination revealed a mass in the left lower quadrant which was tender. Peritoneal rebound was elicited. There was definite left rectus spasm. On vaginal examination the uterus was found to be normal in size, shape, and position. A large mass, the size of a grapefruit, extremely tender, was felt to the left of the uterus. Blood count reported 22,000 white cells and eighty per cent polymorphonuclears and twenty per cent lymphocytes. Smears for gonococcus were negative. A diagnosis of tubo-ovarian abscess was made, and the patient referred to Dr. Edward Horowitz for fever therapy.

1/28/37	After one treatment with hyperpyrexia mass was reduced to size of an orange. Patient felt tired weak and was unable to carry on her work (radio singer). She complained of no pain.		
	Hgb	Red cells	Heptogene tablets II t.i.d. prescribed.
2/4	69%	3 930 000	
2/10	76%	3 820 000	
2/17	82%	4 040 000	
2/26	86%	4 320 000	Patient felt stronger and much improved
3/5	90%	4 520 000	All symptoms have subsided
	90%	4 510 000	Mass was about size of a walnut.

Comment The secondary anemia in this case was probably the result of chronic suppuration. A repetition of hyperpyrexia

is stored in the liver, approximately 254 mg per kilogram of dry substance being present. For this reason there are many who regard the effects of liver therapy in the treatment of pernicious anemia as a copper effect which would agree with the theory that liver serves as a stimulant to bone-marrow. The copper content of gastrectomized animals will completely vanish from the liver, rendering this organ negligible in its effect on anemic animals. Bence¹² concluded therefrom, that the copper content of the liver was dependent upon the activity of a healthy stomach. The factor responsible for this has been termed the antianemic principle, and is believed to be a nitrogenous base, the exact nature of which has not been determined. It is developed in the gastric mucosa and travels to the liver where it is stored. A liver hormone which tends to stimulate the production of red cells has also been described. This hormone may very well be a combination of the intrinsic factor, and the extrinsic factor which is contained in certain foods. However, there are some who believe this hormone to be an actual secretion of the liver. It seems, from the experiments of Bence, that the former view is apt to be the correct one, for without the intrinsic factor the liver loses its function in the hematopoietic process.

Recently, experiments with calcium have proven that this element increases the body resistance.^{13, 14} The functions of calcium are manifold. It takes part in the formation of bone, decreases excitability of the nervous system, and diminishes exudation by decreasing cell permeability, and acts as an antispasmodic.¹⁵ In addition, vitamin B has been proven by Castle to take a great part in maintaining the hematopoietic system, for by withdrawing vitamin B from the diet he has been able to produce pernicious anemia and he has been able to cure this disease by its addition. He has, therefore, termed it the extrinsic factor.¹⁶

With the above factors in mind, it has become the custom to prescribe small doses of copper with iron in the treatment of secondary anemia. With this mode of therapy, the liver is shunted and the iron is free to be used directly for hemoglobin formation while the copper functions to stimulate erythrocytic activity.

The results obtained have been satisfactory to a certain degree. Machold,¹⁷ in 1934, prescribed a preparation containing 25 mg copper, 1 g ferric chloride, and 1 gram gastric powder, the latter being added to prevent gastric disturbances. He found that its effect on red cell stimulation was greater than on the hemoglobin stimulation. In the treatment of anemia in children, Lewis¹⁸ found copper and iron to yield satisfactory results, both clinically and symptomatically. Mills¹⁹ treated idiopathic anemias with iron, copper, and liver, and attributed the good results of the liver therapy to its high copper content. Copper, liver, and iron are now being used in most clinics to combat anemia.

In applying Buerger's principle to the treatment of secondary anemia, there is available iron which serves as a hemoglobin builder, copper, which acts to stimulate erythrocytic formation, liver, which contains the intrinsic factor, vitamin B as the extrinsic factor, and calcium, which acts on bone and cell permeability. Thus, when combining all of these, a *multiplicity* effect should result because of the different pharmacological points of attack. A preparation containing liver extract 24 gr, iron albuminate 166 gr, calcium gluconate 12 gr, two Sherman units vitamin B, and ten units vitamin G was selected. The combined small doses, in preference to large doses of a single ingredient, should, according to Buerger's theory, produce the desired effect.*

Case Reports

CASE 1 J K, male, age eighteen, was first seen on January 27, 1937, at which time he complained of lassitude, loss of vigor, and pruritis ani. Both parents are mutes, his father as a result of meningitis and his mother following scarlet fever. The patient made an uneventful recovery from poliomyelitis in 1931. For the past seven months the boy has been employed as a clerk and attending school at night. Lately he has been complaining of insufficient energy to carry on his routine, and more recently has suffered from an itch in the perianal region. The patient has not been constipated and there were no symptoms referable to the other major tract.

*This combination is now available as Heptogene.

Examination revealed an adult male of sthenic habitus. He weighed 141 lbs, and was 5'8" in height. Temperature 98.6, pulse seventy-two, and respirations twenty-four. General examination was negative. A fissure in ano was present. Blood pressure was 120/80. Urinalysis was negative. A blood count showed eighty per cent hemoglobin and 4,120,000 red cells. A diagnosis of inanition and fissure in ano was made. The patient was treated with local applications of silver nitrate to the fissure, and was advised to take sitz-baths and mineral oil. Heptogene tablets II t.i.d. was prescribed.

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CASE 2. D M, female, age twenty, was first seen on October 22, 1936 at which time she complained of pain in the right lower quadrant radiating to the back and groin and associated with nausea and vomiting. Her menstrual history was negative except for a miscarriage in July 1936. There was no history of dysuria.

Examination revealed a slightly built young adult, weighing ninety-two lbs. Temperature ninety-nine, pulse eighty, and respirations twenty-four. Blood pressure was 118/80. Head, neck, heart, and lungs were negative. There was tenderness in the right lumbar region and a definite feeling of fullness was palpated, but because of rigidity the exact nature of this could not be determined. X-rays of the abdomen disclosed a large right kidney. The left kidney was not visualized. On retrograde pyelography, the left ureter and kidney were found to be absent, and the right kidney was enlarged and ptosed producing a kink one half inch distal to the kidney. From these findings a diagnosis of congenital absence of the left kidney and ptosis of an enlarged right kidney was made. The patient was advised to wear a properly fitted support for the ptosed kidney, and she was placed on a high caloric diet.

1/20/37 No gain in weight. Patient still complained of lassitude and loss of appetite. Protomin

	insulin units V injected, and high caloric diet continued	
1/28	After daily injections of protomin insulin weight increased to 101 lbs. 74% hgb 4 065,000 red cells. Heptogene tablets II t.i.d. ordered.	
2/4	76% hgb 4 085 000 red cells.	102 lbs.
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2/26	90% hgb 4 510 000 red cells.	102 lbs. Lassitude gone. Feels well.
3/1	90% hgb 4 500 000 red cells.	102 lbs. All symptoms subsided.

Comment It was believed that with increased weight the deposit of perirenal fat would be sufficient to hold the kidney in place. However, one is hesitant to discontinue the mechanical support in spite of the weight gain. Protomin insulin in association with the high caloric diet was responsible for the gain in weight. The combination therapy, however, raised the hemoglobin from seventy-six to ninety per cent, and for the past two weeks the patient has maintained her weight without resorting to other therapy.

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	After one treatment with hyperpyrexia mass was reduced to size of an orange. Patient felt tired weak and was unable to carry on her work (radio singer). She complained of no pain.	
	Hgb	Red cells
1/28/37	69%	3 930 000
		Heptogene tablets II t.i.d. prescribed
2/4	76%	3 820 000
2/10	82%	4 040 000
2/17	86%	4 320 000
		Patient felt stronger and much improved.
2/26	90%	4 520 000
3/5	90%	4 510 000
		All symptoms have subsided. Mass was about size of a walnut.

Comment The secondary anemia in this case was probably the result of chronic suppuration. A repetition of hyperpyrexia

treatment although advised was refused by the patient. By building up her resistance with the combination therapy she was able to return to work and carry on her daily routine. She may, however, eventually come to operation if fever therapy is not continued.

CASE 4 S H, female, age thirty, was first seen on July 12, 1936 at which time she complained of nausea and vomiting complicating a pregnancy of eight weeks. At the time of the examination the patient weighed 109 lbs and stated that she had lost fifteen lbs since the onset of her pregnancy. Examination revealed infected teeth, heart, lungs, and neck negative. Blood pressure 120/80. The uterus is enlarged to the size of an eight weeks gravidity with a definite area of softening. Urinalysis is negative. A blood count reported seventy per cent hemoglobin and 3,500,000 red cells. A diagnosis of vomiting complicating pregnancy was made. The patient was put to bed and calcium and glucose by injection, iron and copper by injection, and vitamin E by mouth were given.

Clinical Course Patient continued to feel nauseous during July, but the vomiting had stopped after one week of therapy. She was permitted to resume activity in the early part of August, and on the 18th had a uterine hemorrhage which was controlled by resorting to the above described therapy. Bleeding recurred one week later but stopped after two days. The Aschheim-Zondek test at this time was positive. The patient was kept in bed until September (fourth month of gestation). Her blood pressure was 118/80, hemoglobin forty-eight per cent and the red cell count was 3,200,000. The patient was put on iron medication by injection and by mouth, but no increase in hemoglobin was obtained. On January 30, 1937 heptogene therapy was instituted. At this time her hemoglobin was forty-six per cent.

2/ 6/37	52% hgb	3 440 000 red cells.
2/13	56% hgb	3 470 000 red cells.
2/20	59% hgb	3 450 000 red cells.
2/24	Spontaneous delivery of a living child	
2/25	70% hgb	3 520 000 red cells.
3/ 4	75% hgb	3 500 000 red cells.

Comment An increase of ten per cent in hemoglobin over a period of one month may not be upon first thought of much significance, but it must be remembered that with intramuscular injections and therapy with the heavy metals by mouth, no increase in hemoglobin was obtained after a period of four months. The rise to seventy per cent after delivery was attributed to concentration. The combination therapy given during her postpartum stay in the hospital

brought the hemoglobin up from seventy to seventy-five per cent.

CASE 5 E C, female, age thirty-three, was first seen on December 28, 1936 presenting a history of amenorrhea of one month's duration. General physical examination was negative. Vaginal examination showed the uterus to be enlarged to the size of a six weeks gravidity. A blood count reported ninety per cent hemoglobin and 4,450,000 red cells. Urinalysis was negative. Blood pressure was 140/80. A diagnosis of pregnancy was made.

	Hgb	Red cells	Heptogene tablets II, t.i.d., ordered.
2/ 2/37	76%	3,960 000	
2/10	80%	4 120 000	
2/19	80%	4 200 000	
2/24	89%	4 520 000	
3/ 6	91%	4 500,000	

Comment Secondary anemia complicating pregnancy appeared three months after onset of gestation. Treatment with Heptogene restored the hemoglobin to normal after three weeks.

CASE 6 C B, female, age thirty-three, was seen on January 26, 1937, complaining of fatigue, lassitude, and loss of appetite. The onset of symptoms followed childbirth on November 7, 1936. Following her first delivery fourteen years ago the patient was left with a third degree retroversion. She had two miscarriages after that. The uterus was kept forward with a Smith pessary during the first three months of this last pregnancy after which she continued to carry normally, and delivered spontaneously. She had scarlet fever in early childhood which left her a deaf mute. Examination revealed a well-developed adult weighing 120 lbs. General examination was negative. Vaginal examination disclosed a third degree retroversion and a second degree rectocele. Urinalysis was negative. Blood count reported seventy-four per cent hemoglobin and 3,720,000 red cells. A diagnosis of inanition was made, and Heptogene tablets II t.i.d. was prescribed.

	Hgb	Red cells	Symptoms of fatigue and lassitude gone.
2/ 2/37	78%	4 200 000	
2/11	84%	4 420 000	
2/24	90%	4 440 000	

Comment Secondary anemia, the result of inanition, following pregnancy, cleared up after three weeks of combination therapy.

CASE 7 C K, age eighteen, was referred to me with the following history. She had been first seen on January 20, 1937 at which time she complained of headache, dizziness, nausea, and vomiting. Since her last menstrual period, three weeks prior to her first visit, she had been bleeding profusely. Her

past history was negative. General examination revealed a well-developed female presenting a marked pallor of the mucous membrane of the conjunctiva and lips. Her heart and lungs were negative. The uterus was small, anteverted, and freely movable. There were no masses palpable. The adnexa were negative. The urine was negative. Blood count reported forty-nine per cent hemoglobin, 2,400,000 red cells, 9,200 white cells with a normal differential. A diagnosis of functional bleeding was made. The patient was ordered to bed and placed on liver extract and iron medication by injection.

Clinical Course On the outlined regime the bleeding subsided, and by February 19, all symptoms had disappeared. Her hemoglobin at this time was forty-eight per cent. She was advised to take Heptogene tablets II t.i.d. By March 5 her hemoglobin rose to sixty per cent and the patient was symptom free.

Comment In this case the secondary anemia, the result of functional uterine bleeding, did not respond to liver and iron by injection. Combination therapy brought the hemoglobin from forty-eight per cent to sixty per cent after one month of treatment.

CASE 8 H G, female, age thirty, was seen on February 6, 1937 complaining of pain over the frontal region, overweight, and palpitation. She had been on thyroid medication for the past year, taking one grain three times daily, and for the past few months had been complaining of the aforementioned symptoms. Examination revealed a well-developed individual 5'2" in height and weighing 156 lbs. Nasal mucous membranes were pale and swollen. A small nasal polyp was present. Heart rate 100, no enlargement or murmurs. Girdle obesity was marked. Urinalysis was negative. Basal metabolism was reported minus five. Blood count reported ninety per cent hemoglobin and 4,500,000 red cells. A diagnosis of vasomotor rhinitis and obesity was made. The patient was treated with adrenal cortex, grains III t.i.d. Thyroid grains I t.i.d. and Heptogene tablets II t.i.d.

Clinical course On February 27, after three weeks of treatment, the patient had lost five pounds. There was no palpitation and the heart rate was seventy-eight. The nasal symptoms had subsided. The patient was advised to continue the therapy.

Comment Copper and iron, in the form of combination therapy, was given in this case in accordance with Hesse's theory, and after two weeks the palpitation and rapid heart rate had subsided.

CASE 9 B K, female, age twenty-eight, was seen on January 28, 1937 having no complaints but anxious to lose weight. Two years ago she had been given thyroid medication and developed symptoms of avitaminosis with severe pain in both legs and arms. Her basal metabolism rose from normal to plus twenty eight. The patient was hospitalized, and after ten days of rest was discharged. Her only present complaint was that of swelling of the legs. Examination revealed a heavy set, 5'2" individual weighing 152 lbs. Pretibial edema present. Heart and lungs were negative. Blood pressure 100/80. Urinalysis was negative. Blood count reported eighty-four per cent hemoglobin and 4,140,000 red cells. Basal metabolism was minus ten. A diagnosis of hypothyroidism was made. Patient placed on a 900 calorie diet, thyroid gr ss t.i.d., and Heptogene tablets II t.i.d.

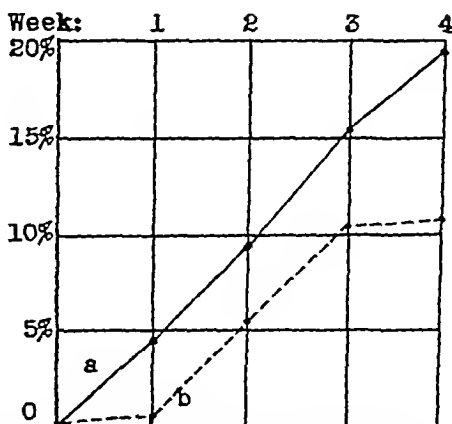
	Hgb	Red cells	
2/ 6/37	86%	4 460 000	148 lbs.
2/25	90%	4 520 000	144 lbs. Blood pressure 104/80

Comment After four weeks of thyroid medication the patient showed no signs of intoxication similar to that suffered two years ago. Whether iron and copper acted to prevent these symptoms, in line with Hesse's theory is questionable. Further study along this line, however, is indicated.

Conclusion

The author wishes it to be understood that secondary anemia and its associated symptoms is a complication of an existing pathological state, and that such a disease

CHART I



a - % Rise in Hemoglobin (Dare)
b - % Rise in R.B.C. (10%-500,000)

must be eliminated to establish a cure. Likewise, when unhygienic surroundings serve as the etiological factor in inanition, therapy will only be transitory pending the eradication of the cause. The treatment of the symptom can only be advised as an adjuvant in the care of the disease.

In all the cases observed, the symptoms of lassitude, fatigue, loss of appetite, etc., cleared up after two weeks of therapy. The rise in hemoglobin was prompt, and in some instances an increase of ten per cent was recorded after two weeks (see chart). The increase in red cells was not as marked. However, after one month

most cases showed counts of approximately 4,500,000 red cells.

It is unfortunate that the number of cases studied did not permit comparison in controls so that the conclusion one arrives at is that the treatment of secondary anemia complicating inanition, pregnancy, chronic suppuration or bleeding met with highly satisfactory results with the combination of the hematopoietic drugs in compliance with Buerger's theory. The last two cases presented while other than secondary anemia, are included because they serve to confirm Hesse's theory.

27 W 72 St

References

- 1 Buerger. *Medizin—Biologische Schriften*, page 25, 1932
- 2 Idem. *Wiener Klin Woch*, p 757 1931
- 3 Buerger and Gordonoff. *Klin Woch*, p 2098, 1928
- 4 Schultz H. *Effects and Uses of the Inorganic Medicinal Substances*, G Thieme, Leipzig, p 255, 1907
- 5 Starkenstein E. *Influence Exerted by Iron Upon the Formation of Blood*, Vol 3, p 1146, 1934
- 6 Waddell, Steenbock, and Hart. *Jour of Biol Chem*, 84 115, 1929
- 7 Elvehjem. *Ibid* 84 131, 1929
- 8 Handovsky. *Klin Woch*, page 981, 1932
- 9 Hesse, Jacobi and Bregulla. *Nounyn Schmiedens berg* 170 13, 1933
- 10 Hesse and Vondeerlin. *Ibid*, 173 192, 1933
- 11 Hesse, Carpus, and Deppmeisel. *Ibid* 176 283, 1934
- 12 Bence. *Wien Med Woch*, page 1055, 1933
- 13 Full. *Med Welt* no 23 1933
- 14 Idem. *Muenchener Med Woch*, page 1767, 1931
- 15 Wolf. *Endocrinology in Modern Practice*
- 16 Widenbauer. *Muenchener Med Woch*, page 1071 1935
- 17 Machold, K. *Zeit fuer Klin Med*, 127 27 1934
- 18 Lewis. *J A M A*, page 1153, 1931
- 19 Mills. *Canad Med Asso Jour*, 22 175 1930

TO UNKINK THE JURY'S BROWS

The puzzled expression on the faces of jurors and lawyers while a physician was testifying prompted a Jackson Heights physician to write a book.

The physician, Dr Philip Palew, collaborated with Isidore Halpern, an attorney, in the preparation of the volume.

The book, the physician's first publication, is intended to give lawyers or anyone interested in medical terms an idea as to what actually lies beyond definitions of these terms, says a Long Island City newspaper.

Dr Palew is associated with the orthopedic departments of Queens General Hospital, St. John's Hospital, Long Island City, and Willard Parker Hospital and is an instructor in orthopedic surgery at New York University College of Medicine.

"The Attorney's Guide to Medical Terms," is the title of the book.

Dr Palew was prompted to write the book in answer to many questions put to him by lawyers.

He and Mr Halpern did not attempt to write a learned and scientific tome on medicine, but attempted to "tell in plain English" the meaning of various phrases

to those who may be interested in a better understanding of medical phraseology.

There is scarcely a trial at which the words, "Tell it to the jury in plain English, Doctor," are not uttered by the judge or lawyer when a physician is on the witness stand and Dr Palew and Mr Halpern as they worked on the book kept those words in mind.

The authors in the preface state that the difficulty is that the physician on the stand, when he is being counselled to use plain English, is using those words which to him are plain and understandable.

The duty, therefore, according to the authors, evolves upon counsel to simplify and reduce to understandable terms, complicated medical terminology.

And Dr Palew and Mr Halpern feel that if their book is of any help to the lawyer or any person interested in a better understanding of medical terminology, the years spent in its preparation have served a useful purpose.

Miss Mary Lorenc of the anatomy department of the New York University College of Medicine is credited for the drawings in the book.

SYSTOLIC MURMUR

Symptomatic Importance in Heart Muscle Weakness

GEORGE ZUELZER, M D, *New York City*

Clinical medicine requires a diagnosis not to be based on merely one given symptom but on as many symptoms as can possibly be found. This requirement, however, is most frequently disregarded, as I shall prove, in cases where a cardiac diagnosis is based on the systolic murmur exclusively. Sahli-Bern, in his well-known textbook of "Clinical Diagnosis," advises that a cardiac murmur should be considered of no diagnostic value, merely an accidental incidence, if there is nothing else to prove that a valvular disease actually exists.

The fact that there may be different causes for the manifestation of a systolic murmur, is a knowledge well-established. Bystritsky,¹ in his recent paper on functional cardiac murmurs, divides such murmurs into muscular murmurs, associated with some disorder in the myocardiac function of contraction and tonicity, and accidental murmurs which, while not related to myocardiac function, may be due to a variety of etiologic moments. This author investigated the state of myocardiac function in 583 cases of functional murmur (located at the apex), and reports that in eighty-two per cent of these cases there was some disorder in the myocardiac function noticeable. In another group of cases in which the murmur was audible at the base, the myocardiac function appeared to be disturbed in twelve per cent of all cases only. Unfortunately, there is no indication as to the method by which the myocardiac disturbance had been established.

Before entering into a discussion of the above statements, I shall endeavor to briefly discuss the origin of the first systolic sound. Leroy Crummer's² theory is generally accepted, it says

The cause of the first sound of the heart seems to be accepted as a physiological fact, all agree in stating two factors, muscle contraction and auriculo-ventricular valve tension. The first sound begins during the time of total closure, that is, when there is no movement of blood within the chambers,

thus, the idea seems substantiated that almost the entire first sound is a result of tension of both valves and muscle.

According to Geigel³ a sound is produced by disturbing the equilibrium of an elastic and sound-producing body suddenly and one at a time. With a murmur, the equilibrium is disturbed repeatedly for a longer, or shorter, period of time, however.

According to Crummer, increased volume of muscle in the left ventricle always gives the character of sound which has been described as booming, while the snappy first sound of mitral stenosis is explained as being due to preponderance of valve tension in the sound. These phenomena are in accordance with Geigel's law.

The reverse application of this law, e.g. its relation to the origin of cardiac murmurs in cases of weakening of the cardiac muscle, has not met with the interest to which it appeared entitled. Obviously, murmurs must be heard instead of a sound when the cardiac muscle is weakened, e.g. when its contraction is not sufficiently strong to produce the sound. It seems to me as though Bystritsky had not been fully aware of the definite relation between the strength of the contraction and the manifestation of the murmur, which I reported some years ago. Bystritsky, on one hand, claims that certain cardiac murmurs are due to some disorder in the myocardiac function of contraction and tonicity (and he is quite right in stating that this murmur becomes audible only with the patient lying down), but on the other hand, he obviously contradicts himself in regard to his own theory of myocardiac function, by stating that this murmur is never intensified by bodily exercise. I should say that the opposite holds true, and I say this on the strength of my own experiences which stretch over a period of twenty years, and include several thousand cases.

With the primary disorder in the

cardiac function, one hears a soft murmur preferably at the apex, but practically all over the heart as soon as the patient is in a horizontal position. In the upright patient, the sounds are normal despite some mild cardiac weakness, when arising, the patient performs the change of position but slowly, thereby excluding all physical strain exerted by a change of position, then the cardiac sounds appear to be quite normal. This difference is of great diagnostic importance, murmurs, more or less loud, become manifest upon physical exertion, (for instance, ten knee bendings)

In opposition to this systolic muscular murmur there is the murmur which is prompted by an insufficient auriculo-ventricular valve. The first cardiac sound originates simultaneously in both chambers during the time of total closure, according to Geigel, there is but one systolic heart sound. If, because of the absence of total closure (as is the case with mitral insufficiency), no sound is produced in one chamber, the other chamber is hampered in its endeavor to achieve a complete and sudden closure by its neighbor, so that no pure sound but merely a murmur can be discerned. This murmur will be audible in the patient both in a vertical or horizontal position, it may, however, vanish when the patient lies down. Of course, the manifestation of an organic murmur is always depending on the blood flowing through a narrow spot at a definite speed, and this speed is always increased physiologically in the upright patient. Thus it may well happen that in a case where there is slight mitral insufficiency, e.g. when the valvular insufficiency manifests itself only by a strain on the heart, no murmur will be heard in the patient when assuming a horizontal position, and the murmur will not become evident unless the velocity of blood circulation is sufficiently increased which phenomenon takes place as soon as the patient assumes a vertical position.

It is a knowledge well-established that in the animal system there is a physiologic increase both in the pulse rate and in the blood pressure when changing one's position from horizontal to vertical. The only exception, according to Francis Benedict, is given by the elephant. It is very likely that the change of position effects an in-

crease in the adrenalin secretion. It is conceivable that the sudden development of a higher tonus should follow as a reaction to the relaxation which a large part of the muscles have been experiencing during a bodily rest. The individual rises, and automatically demands an additional supply of energy which is immediately furnished. This additional supply of energy occurs probably in the form of dextrose effected by an increase in the adrenalin secretion which in turn is due to muscular activity. However, the adrenalin is not only responsible for the mobilization of dextrose by way of adrenalin, the latter simultaneously increases both the blood pressure and the pulse rate.

While in a normal individual the diminished tonus of the heart muscle—according to Geigel—may be sufficiently strong to produce the normal first cardiac sound, the tonus, under pathologic conditions (for example, through an infection) may be decreased to such an extent that merely a murmur is effected by the weakened contraction in the horizontal patient. The stronger tonus in an upright individual will suffice in producing a normal sound, however. The vanishing of the systolic sound stands in opposition to what happens in some instances in mitral insufficiency, as stated above, this phenomenon is to be regarded as the first symptom of cardiac insufficiency—as the expression of a hypotonia of the cardiac muscle. It is obvious that the manifestation of such a cardiac weakness is preferably observed as a symptom in acute infectious diseases. Roy Scott⁴ has but recently stressed the diagnostic significance of such cardiac murmurs in younger individuals as being indications of some cardiac lesion due to rheumatic infections. Lederer and Stolte have observed the presence of this systolic murmur in children suffering from scarlet fever, however, they have observed it only in children who are bedridden, and did not trace the sound in the children when assuming a vertical position. I myself have made the observation that in children suffering from scarlet fever, the systolic murmurs would vanish upon changing their position from horizontal to erect, so that there cannot be any doubt as to these forms of murmur being of perfect

identity The above-named authors have observed the presence of said murmur during a mild epidemic in 704 of all cases, and they arrived at the conclusion that these murmurs were effected by a decrease of the cardiac tonus which in turn had been prompted by the scarlet fever infection A similar decrease of the cardiac tonus has been described as being proper to cases of diphtheria infection Stejskal,⁵ in his experiments on dogs, was able to demonstrate that diphtheria toxin, introduced by way of injections, produced a decrease of the vasomotor tonus as well as of the cardiac tonus The murmurs ascertained in the scarlet fever children vanished slowly so that these children could be dismissed after eight weeks as completely cured, we know, however, that the cardiac muscles are more or less afflicted by the disease, and that it is merely a sheer impossibility to deduce from the clinical picture to the anatomic state Thus I believe to be justified in including such cases as "border-line cases" in the group of cases marked by a weakness of the heart

The theory according to which such murmurs originate from a decreased cardiac tonus, has been interestingly confirmed by experiments performed by Lederer and Stolte By administering faradization to one part of the body they achieved an increase in the peripheral pressure, thereby causing a temporary disappearance of the systolic murmur Schliepe,⁶ in analogy to these experiments, proved that in order to facilitate differential diagnosis between the atonic (or, better, hypotonic) murmur and the cardiopulmonary murmur in children, one may resort either to a physical irritation, or to a compression of the abdominal aorta, or to the lifting of the legs Under such measures the hypotonic murmurs vanish because of the passing increase of the blood pressure, as would also be the case with faradization or with changing to an upright position All of these measures cause the cardiac muscle to cross the tonus threshold so that normal sounds are produced once again

It is the same with adults, the lifting of the legs, or the compression of the abdominal aorta has a differential-diagnostic value equal to that in the case of children, but this applies only to mild

cases of cardiac hypotonia, e g where the systolic murmur is heard in the horizontal individual exclusively In more serious cases, e g where the murmur persists also in the upright patient, the increase of blood pressure effected by the above-mentioned measures is not sufficiently strong to permit of producing normal sounds The murmur may be changed into a normal systolic sound in such cases, however, by injecting adrenalin⁷ or eutonon

Potain has furnished an explanation of the above-mentioned cardiopulmonary murmur and the extra-cardiac systolic murmur He presumes that the heart, due to the decreasing volume during the systole, causes a negative change in the intrathoracic pressure, especially in the region close to the heart, in other words, that it exerts a systolic aspiration on the lungs, thereby producing a murmur This theory was established as a fact by experimental research The tender tissues in children yield most readily to this phenomenon, of course This goes to prove that the systolic murmur has a definite cause, and for that reason may not be regarded as being an accidental incidence

Anemia does not cause an accidental murmur, if it is not caused by constitutional diseases but only by an acute loss of blood I once saw a man who, while otherwise quite normal, had developed a strong anemia due to hemorrhoidal hemorrhages (35 per cent HB) The blood picture was entirely normal The anemia had occurred in a very short time There was no murmur, neither in a horizontal nor in a vertical position, not even after bodily exertion The so-called anemic murmurs always prove to be of a hypotonic character, the insufficiency of the cardiac muscle causing this systolic murmur is a constitutional factor as much as is the anemia This anemic murmur vanishes quickly upon introduction of the afore-mentioned measures, while the anemia may persist for a much longer period of time I definitely state that there are no other accidental murmurs, except perhaps in some rare anatomic anomalies which are of no practical importance

As regards the etiology of the anorganic myocardial or functional systolic murmurs there are mainly two causes respon-

sible for these cardiac disorders—infections, both acute and chronic, and physical overstrain. Of the infections, it is the influenza and, preferably, the chronic grippe which play the leading parts today. I am willing to concede that it may at times be rather difficult, even impossible, to differentiate between hypotonic murmurs and systolic-mitral murmurs, when, for example, such characteristic signs as the accentuation of the second sound, etc., happen to be absent, while the congestion of the liver may be present in either case. I find myself to some extent in accordance with Bystritsky in stating that the myocardiac function appears to be disturbed in hearts showing hypotonic-systolic murmur, and that the diagnosis of a decreased cardiac tonus is undoubtedly of greater importance than that of eventually accidental murmur which may happen to be present at times, but holds no diagnostic value. We have now seen that the majority of cases of “accidental

murmur” are due to functional changes of the cardiac muscle, thereby proving that there actually exists no accidental murmur, and that the few cases in which we happen to be unable to ascertain the cause of the systolic murmur, also belong with the general group. Thus, I would propose that the term of “accidental murmur” may be abolished as non-existent, and therefore regard every finding of a hypotonic muscular murmur as the very first symptom of a heart weakness which may lead to an irreparable heart failure sooner or later.

394 WEST END AVE.

References

- 1 Bystritsky Quoted in *Sovetskii Vrachebny Zhurnal* J A M A, 106 2206, 1936
- 2 Crummer Leroy *Clinical features of heart diseases*, London 1925
- 3 Geigel *Lehrbuch der Herzkrankheiten*, 1920
- 4 Scott, Roy *Ohio State Med Journal*, 31 943, 1935
- 5 Stejskal *Zschr f klin M B* 51
- 6 Schlieps *J f Kindhik*, p 247 1912
- 7 Kuehnelt Cft. *Brugsch Schittenhelm Lehrb klin Untersuchungsmethode*, 4 Aufl S 148

“BACK FROM THE DEAD”

That, at any rate, is the engaging title the daily papers put on the account of Dr Sebron C Dale, an intern in the University of Pennsylvania Graduate Hospital, who miraculously recovered after his head was nearly cut off by an insane patient. This strange story of a man who had his throat slashed severely two years ago and was believed dead, only to recover completely, was related to the American Laryngological Association and the man himself appeared as the living witness on May 31 at Atlantic City.

The story was told by Dr G B Wood of the ear, nose and throat department of the same hospital, as an unprecedented example of perfect teamwork between the various hospital factors.

A demented patient sneaked up behind Dr Dale and slashed him three times across the throat with a razor on Nov 2, 1935. The jugular vein and carotid artery were severed, the larynx opened up, some of the vocal cords were severed on one side, and all the muscles and nerves on one side of the jaw were cut. The head itself was all but severed.

Dr Dale staggered to the surgical dressing room on the same floor on which he was attacked. There a fellow intern seized him, stretched him out on the floor, used his

fingers in an attempt to check the copious flow of blood, and called for help.

There were some sterile hemostats in the surgical dressing room, and these later were snapped onto the ends of the severed blood vessels.

By this time, five minutes after the attack, Dr Dale apparently had ceased to breathe and no pulse action could be detected.

An operating room had just been prepared for an appendix operation, with surgeons and nurses ready, and all instruments sterilized and laid out. This room was commandeered for an emergency operation on the wounded intern, and surgeons thus were able to operate immediately, whereas two or three hours otherwise would have been required to prepare for the operation.

Dr Dale's type of blood already was known, and while another doctor in the hospital having the same type of blood was being prepared for a transfusion, a vein in one of the wounded intern's legs was opened and salt and glucose solutions were pumped into the blood stream.

After blood from the veins of the other physician was pumped into those of Dr Dale, the latter's pulse returned and he began breathing. Surgeons then sewed the severed ends of veins and arteries

AN ATTACHMENT FOR USE IN CONJUNCTION WITH THE SCALPEL

F M AL AKL, M D, *Brooklyn*

Some surgeons depend upon the scalpel exclusively for cutting. The scissors are taboo and in jest, branded as a gynecologist's instrument. The mass of operators however, make constant use of the scissors. They presumably see no particular advantage in taking the chances of injuring underlying structures while severing layers of tissue with the knife, or opening into body cavities. The preferability of cutting with a sharp blade, without crushing the edges of a wound makes the scalpel the instrument of choice. The scissors nevertheless, possess the decided advantage of being easier to manipulate. It further combines a cutting instrument with one capable of separating layers of tissue. Through the adapter herein described, the scalpel becomes modified to advantage and may in part supplant the scissors.

The attachment in question is a triangularly shaped spoon with a shallow longitudinal groove to accommodate the tip of the knife's blade. The handle of the spoon is a folded plate of steel through which the blade of the knife may slide and lodge securely (Fig 1).

Ordinarily, in cutting fibers of muscular aponeurosis or fascial sheaths, the closed curved scissors are introduced beneath the fascia through a small nick, opened to separate the fascia from underlying structures, then withdrawn and cut with. With the modified knife, (Fig 2) the process becomes greatly simplified.

Once the spoon of the knife is introduced through the nick in the fascia, the operator may safely proceed to push the knife along the direction of the desired incision, and as with a plough, the structures over the spoon are cleaved. The peritoneal cavity may be opened as easily with the modified knife. The peritoneum is nicked with the belly of the modified knife between clamps in the usual manner (Fig 3). The spoon is then introduced through the aperture and as its tip glides under the inner surface of the parietal peritoneum, the blade cuts through the structures, giving access to the cavity through the desired opening.

The same technic may also serve in opening the dura, the pericardium, or opening the ureters or biliary passages for the removal of calculi. The modified knife may further be used for all purposes of ordinary cutting such as fibrous bands, ligatures, etc. The tip of the adapter may be employed for teasing of tissue as in isolating the cystic duct from the gall-bladder pedicle, or for reflecting the peritoneum to demonstrate the uterine arteries before ligation, etc.

The modified knife presents three distinct advantages over the scissors, viz economy of time, economy of instruments, and added safety.

Inasmuch as two acts—the act of separating and the act of cutting—are performed by the same stroke, it follows that only half of the usual time is required.



Fig 1 Attachment, special blade, and standard Bard-Parker handle No 3

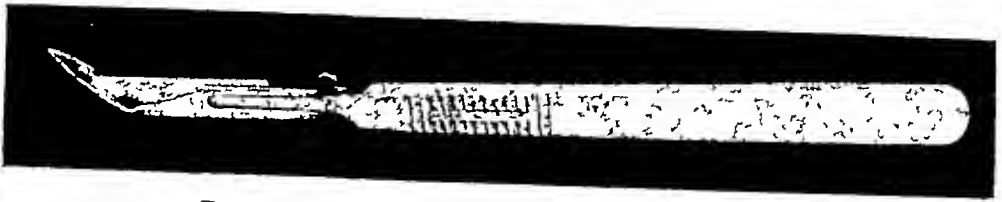


Fig 2 Blade and adapter attached to handle, ready for use

In performing a hernioplasty, for example, one can save time by simply hooking the intercolumnar fibers under the tip of the spoon (Fig 4), and immediately proceeding to incise the aponeurosis, instead of introducing a grooved director underneath the fibers of the external oblique then running the scalpel down the groove. Again, instead of using the scalpel to nick the peritoneum, introducing a sponge-stick to keep the viscera out of the scissors way, then cutting with the scissors, the modified knife takes the place of the three instruments, and performs the operation more quickly and gracefully. The modified knife, always underneath the structures it severs, leaves the operative field clear, and over the gliding tip of the spoon, the bladder fold may be detected and spared, a blood-vessel sighted and ligated or avoided, and adherent viscera may be separated from the abdominal wall, clearing the way for the blade.

The value of this knife and the smoothness with which it functions, depends upon the acuity of the cutting edge. A dull blade must never be used. Most surgeons throw a dull knife away while operating and simply ask for a fresh one, often to throw away the second one. Few take the trouble of finding out why the knife is dull. In recent experiments conducted with the cooperation of one of the changeable blade manufacturing com-

panies, I found out repeatedly that boiling ruins the edge. I have experimented with blades made of different grades of steel, with plain blades and with metal plated blades, and used blades honed by different processes, yet the blades invariably became dull after boiling. The fact that boiling is the easier and quicker method of sterilization seems to account for the popularity of the method with operating room nurses. Some nurses seem to entertain the notion that if cutting instruments are boiled for five minutes only, the edges are not affected. My experience has been however, that boiling even for few minutes is enough to dull the blades appreciably. I have suggested that manufacturers prepare sterile blades in sterile wrappers by handling the steel aseptically from the moment it leaves the furnace until delivered as blades on the operating tray, but because of certain technical difficulties this seems impossible, under our present economic set-up, without a prohibitive increase in the cost of production. Thorough washing of the blades with soap and water after removal from the wrapper, to remove the greasy coating, followed by immersion in phenol and alcohol respectively is as good a sterilization method as any with the advantage that blades sterilized in this manner remain sharp.

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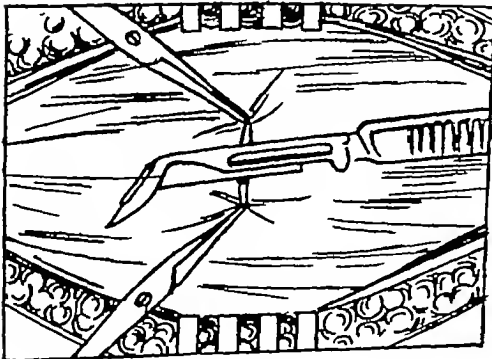


Fig 3

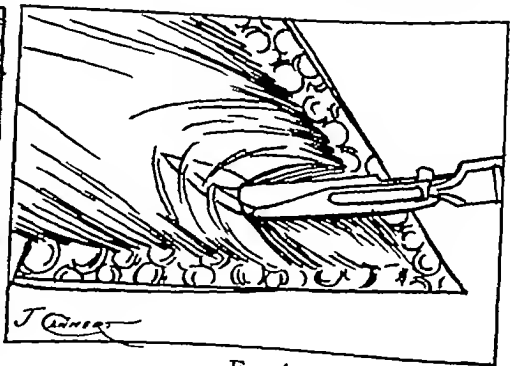


Fig 4

UNDULANT FEVER (BRUCELLOSIS)

Difficulties in Diagnosis and Treatment—A Supplementary Report on Fifty-One Cases with Observations on One Hundred and Twenty Additional Cases

HAROLD J. HARRIS, M.D., *Westport*

In 1934 I made a preliminary report describing my experience with fifty-one cases of brucellosis, acute and chronic.¹ Some of these patients have now been under observation for nearly four years and the remainder for more than two years. It now seems possible to evaluate the status of these cases and to draw conclusions, tentatively at least, as to the efficacy of treatment. Twenty-seven have remained well, after one or more courses of B abortus vaccine (53%), eleven have been greatly improved since vaccine therapy (21%), six have been improved but subject to mild relapse (11%), three refused treatment (6%), two had only intravenous typhoid vaccine with no improvement (4%), and two received little apparent benefit in spite of repeated courses of B abortus vaccine (4%). Long-standing chronic infections in elderly patients were especially prone to relapse. Relapses were seldom as severe as before vaccine therapy and usually yielded promptly to a few more doses of vaccine. There were no deaths.

Since this report, the observation and treatment of one-hundred and twenty additional cases has resulted in confirmation of most of the ideas set forth in the original report and has brought to light many new angles of this complex problem. The importance of prevention is being more and more appreciated and the disease is becoming recognized as of major importance. There is a growing appreciation of the fact that brucellosis can simulate a multitude of other diseases and syndromes.² The literature on many phases of the disease is making available a wealth of information which is bringing the subject out of the obscurity in which it existed only a few years ago. Articles on the general subject of brucellosis as well as on its occurrence in the fields of the various specialties are

now regularly appearing.^{3, 4} Still there is much to be elucidated in diagnosis and treatment.

The attempt to popularize the term brucellosis instead of undulant fever seems worthwhile. It seems inconsistent to physicians and laymen alike to call a disease any kind of fever wherein no actual fever may be observed. Undulant fever suggests an acute illness, not applicable to the chronic cases. Hughes discussed chronic brucellosis and terminology forty years ago.¹⁸

Epidemiology, Etiology, and Symptomatology will be referred to only incidentally since many have had repeated opportunities to read articles on this subject. I would prefer to discuss diagnosis (differential diagnosis especially) and to stress the form of treatment which has been used in this series of cases.

*Clinically, brucellosis is to be suspected in any obscure acute or chronic illness.*⁵ In my own experience it has simulated or caused the following staggering list of conditions: Anemia (primary or secondary), arthritis, ulcerative colitis, cholecystitis, appendicitis, toxemia of pregnancy, syphilis, grippé, typhoid, nephritis, pyelitis, cystitis, neuritis, tuberculosis, osteomyelitis, peptic ulcer, psychoneurosis, bronchial asthma, fibrinous bronchitis, abortion, salpingitis, infectious mononucleosis, perforation of abdominal viscus, unresolved pneumonia, low back pain (lumbosacral or sacroiliac strain, lumbar myositis), spondylitis, prolonged hyperhidrosis, chest pain suggesting heart or lung involvement, epistaxis, hyperglycemia and glycosuria resembling diabetes mellitus, skin conditions resembling erysipelas, pityriasis, scabies, seborrheic dermatitis, furunculosis—and "run-down states."¹¹

Like tuberculosis and syphilis, this infection may be so mild as to completely escape detection and, indeed, may exist

Read before Staff Meeting of the Champlain Valley Hospital, Plattsburg, March 9, 1937

in thousands of patients in so minimal a degree that the patient never seeks medical advice. This conception is extremely important. Without it we cannot hope to grasp the enormity of the problem created by *Brucella abortus*—for these mild infections may, at any time, become virulent, after months or years of latency.

A source of confusion, almost impossible to avoid, is the not infrequent co-existence of brucellosis and some other affection, well-illustrated by the illness of a man of fifty which began like a mild grippe, after a week of which there occurred a massive pleural effusion. His blood showed a low degree of agglutination with *B. abortus*, his skin test was strongly positive—and his pleural fluid showed tubercle bacilli on guinea pig inoculation. Following removal of fluid, radiographs showed no evidence of tuberculosis and sputum was negative, several months later parenchymatous changes in lung were apparent, which may have been due to either organism—for I have clinical evidence that *Brucella abortus* may attack lung itself. I still do not know which infection was first in appearance or effect but they did coexist, perhaps neither one was of clinical degree until it was flared up by the other—or both may have been quiescent until flared up simultaneously by grippe.

Diagnostic methods of a high degree of accuracy have been developed but it is unfortunate that blood agglutination tests alone have been so greatly emphasized. In acute brucellosis the so-called characteristic agglutination is obtained, often fairly late in the course of the disease, as in typhoid. Early in the course agglutination with *B. abortus* may occur in low degrees of dilution or not at all. Blood agglutination may remain negative throughout the entire course of the disease.^{8, 7, 8, 15} Alice Evans' personal experience probably would be repeated in others if the effort were made. Her blood agglutination tests were negative in all dilutions but *Brucella abortus* was isolated from her blood stream, and a focus found in her gall-bladder at operation.⁹ A partial agglutination with *B. abortus*, in patients who present a clinical picture of brucellosis, is just as significant as is agglutination in higher dilutions of the serum. To ignore this point

is to overlook a majority of the cases of brucellosis that come under our observation—which is exactly what I did for many years. Twenty of my cases showed a negative blood agglutination, in most instances on repeated tests. Eighty-six showed "partial" agglutination, that is, blood titers of 1 10, 1 20 or 1 40. Fifteen showed so-called characteristic agglutination—1 80 or higher. No case was as startlingly significant as Alice Evans' but one patient whose temperature range was as high as 107.2°F at intervals over a period of seven years never showed an agglutination titer higher than 1 40. There seems no occasion for surprise or doubt in these statements. The agglutination test for brucellosis is not a test for the presence of organisms in the blood, of course. Like the Widal test it is only for determination of specific agglutinins in the blood.

The question naturally arises as to how brucellosis can be diagnosed in the absence of agglutinins in the blood, even on repeated tests. There are two other procedures—the intradermal test and the opsono-cytophagic test of Huddleson. I have had no experience with Huddleson's test because of lack of laboratory facilities but it is receiving more and more favorable comment as a diagnostic procedure.^{6, 10} The skin test^{10, 11, 12, 16} has proven of great value but too much confidence should not be placed in it since a positive test, *per se*, does not prove the existence of active brucellosis but may only indicate that the patient has become sensitized to killed *Brucella abortus* organisms because of previous exposure to this live organism. Therefore, just as in the presence of only a partial blood agglutination, the diagnosis cannot be made on the basis of a positive skin test alone, unless the patient presents a clinical picture of acute or chronic brucellosis. Also, the degree of the skin reaction must be interpreted with caution to avoid errors in either direction. A large red swelling followed by local sloughing at the site of injection is a positive test, of course, but it does not indicate any more as to the presence of an active infection than does the small elevated nodule the size of a split pea, read four days after 0.1 cc of a killed suspension of *B. abortus* (2000 million organisms per cc.)

is injected in the superficial layers of the epidermis. This is the same vaccine that is used for treatment. The degree of local reaction is a valuable guide however in predetermining the sensitivity of that patient to subsequent intramuscular doses of the vaccine, used therapeutically, after diagnosis is established. One knows that small initial doses are indicated, until desensitization is accomplished, in patients exhibiting violently positive skin reactions. Huddleson¹² uses a filtrate of a mixed strain of *B. abortus* for skin tests (available under the name *Bru-cellin*) and for determining sensitivity of the patient to the filtrate which he uses in treatment. In three instances an interesting result of a markedly reacting skin test has been the complete freedom of the patient from symptoms of brucellosis following the subsidence of the skin reaction, no further vaccine having been used. Rarely will the skin test be negative when the blood test is positive, this happened in two instances. When skin tests are doubtful and when the clinical picture is not quite sufficiently definite (with or without positive skin and agglutination tests) to establish a clinical diagnosis of brucellosis a few therapeutic test doses of the vaccine will usually clarify the diagnosis, a rise to a moderately high level of the blood agglutination titer accompanied by clinical improvement helps to confirm the tentative diagnosis, under these circumstances. Obviously careful physical examination and all other indicated laboratory procedures are more than ordinarily necessary in such doubtful cases. Skin test should not be performed prior to blood agglutination tests lest confusion result from the formation of agglutinins which usually follow the skin test even in a patient free from brucellosis. In many respects the skin test for brucellosis is comparable with the tuberculin test in routine use—it is significant only in the presence of other evidence of the disease, clinical or laboratory.

Apparently the chronicity of brucellosis is still questioned by some, although by now there is ample evidence of its frequent occurrence. One of my cases furnished an especially striking example of what a chronic case may be.¹ A woman of thirty aborted three times but was

never otherwise ill with acute symptoms of fever, culture of lochia following the third abortion yielded *B. abortus*, blood agglutinated with *B. abortus* in a 1:160 dilution of the serum.

The anemia, so often present in chronic brucellosis, deserves special discussion. While a peculiar white or oyster-grey color occurs commonly, not all of these patients exhibiting this peculiar pallor are anemic, while a profound or slight degree of anemia may exist in others with variable skin pallor. A mild degree of secondary anemia is the common finding and yields readily to adequate doses of iron. In a few, the anemia is profound and very difficult to distinguish from pernicious anemia. In these cases treatment of the anemia with liver extract parenterally, at the same time that vaccine is given, seems essential. Parenthetically, I might say that liver extract intramuscularly seems to exert an influence for good in the treatment of the intractable chronic case of long-standing, regardless of the presence of anemia. This observation was also made independently by Meyer.¹⁴ Repeated red cell counts and hemoglobin estimations are essential, especially because anemia may develop in the midst of apparently successful treatment. Peculiarly, the vaccine will not bring about improvement in the blood picture unless treatment is aimed at the anemia coincidentally with vaccine therapy.

I have noted before¹ the marked prevalence of dental infection in brucellosis. Three-fourths of my cases have had one or more abscessed teeth. One woman had twenty-eight! Their removal seems absolutely essential if anything approaching cure is to be accomplished. I have been unable to prove whether or not the organism of brucellosis is the direct cause of these root abscesses. Dental study, including x-ray, even of the supposedly edentulous mouth, should be routine.

Confusion in differential diagnosis between brucellosis and tuberculosis may arise not only when the two coexist but in low grade infections with either organism, the signs and symptoms may be so nearly identical as to defy positive proof of either—fatigue, loss of weight, sweats, cough, and slight elevation of temperature, often with chest pain. It is not

rarely that cases of brucellosis are observed in tuberculosis sanatoria for weeks or months before the absence of actual tuberculosis is proven. The confusion with hyperthyroidism obviously also occurs.

Peptic ulcer either coexists with brucellosis in a surprising number of cases or brucellosis is the actual cause of ulcer in some instances. Epigastric pain and a more or less typical ulcer syndrome often occurs in brucellosis, in the absence of actual ulcer, as shown by operation and radiography.

Salpingitis due to brucellosis must always be borne in mind when the etiology is not otherwise clear. It is not infrequent and has been a source of error with gynecologists of the greatest ability.

Appendicitis may be so closely simulated in chronic or subacute brucellosis that operation will seem justifiable to the most conservative surgeon. I have seen eleven such instances. In most of them, the pain, tenderness, nausea, and low-grade fever recurred persistently until vaccine therapy was instituted, and then ceased. White cell counts were of no diagnostic help in such cases for, contrary to the generally accepted idea, leukocytosis rather than leukopenia occurred in the majority of these cases of subacute brucellosis as well as in the presence of other manifestations of the disease. Leukopenia often does occur in the chronic case however. It seems possible that some of the abdominal conditions, operated with a diagnosis of chronic or subacute appendicitis and in whom symptoms recur after operation, may well be due to brucellosis. It is conceivable, of course, that *brucella abortus* may invade the appendix and cause actual appendicitis.

Osteomyelitis is another evidence of the ubiquity of this organism. I have recognized but one case, but Kulowski⁴ has reported osseous and joint lesions in five cases. My patient had had three operations to drain both femurs. A subsequent acute pelvic condition, which I considered a likely ectopic pregnancy, led to the correct evaluation of both illnesses as brucellosis.

Orchitis is mentioned only because I have seen it but once in brucellosis, although it is stated in the writings of many to be a common complication.

Toxemia of pregnancy has occurred in several of my cases of brucellosis. Any organism that may directly attack the placenta, as does *B. abortus*, may well be a direct cause of toxemia because of its influence on placental hormone production alone. Blood and skin tests are a routine in my obstetrical patients with this in mind and because of the tendency to abortion.

Skin eruptions of brucellosis continue to be confusing. I have seen such marked similarity to pityriasis, erysipelas, and scabies as to render diagnosis extremely difficult. Therapeutic test doses of vaccine have often proven of value here.

Arthritis due to brucellosis is receiving the attention it deserves at the hands of workers such as Hardy, Kulowski, Simpson, and others. It may be very difficult to distinguish from arthritis due to other causes and undoubtedly accounts for some unexplained failures in treatment.

Psychoneurosis has been the erroneous diagnosis in many a case of brucellosis and will continue to be until we decide to rule out this infection as well as all other conditions before attaching this label to various conditions. I have seen much harm come from this error, when made by myself and others.⁵

Low back pain, with or without sciatic pain also deserves emphasis because it is occasionally a part of the symptom complex caused by brucellosis and therefore amenable to treatment.

Failure to convalesce normally following acute illnesses such as measles has been noted in patients with chronic low-grade brucellosis not previously requiring treatment, or exacerbations of mild cases often occur following intercurrent infections, such as may in tuberculous patients.

Diabetes has been simulated in brucellosis in a few of my cases in that glycemias and glycosurias have been noted and have disappeared along with other existing signs and symptoms, following vaccine therapy.

Injuries, such as sprains of joints, may result in symptoms and signs out of all proportions to the trauma, in patients with brucellosis, apparently due to localization of the morbid process in injured tissue, where it is apt to remain until specific treatment is instituted.

Conversely, it is obvious that errors in diagnosis may be made by the overenthusiastic physician in just the opposite direction to those discussed above, but careful study of all cases should obviate such errors in time.

I believe the effect of *B. abortus* vaccine is specific in most instances and that shock effect is of incidental consequence.

Treatment in all cases, except two, has been the administration of *B. abortus* vaccine, furnished by the Division of Laboratories of the New York State Department of Health. The two cases referred to were given typhoid vaccine intravenously with no effect except extremely unpleasant reactions. Dosage was varied to fit each case. Those demonstrated to be very sensitive, through noting unusually severe skin test reactions or in whom one therapeutic dose of vaccine was followed by undue local and general reaction, were given very small doses of vaccine until desensitization occurred. Only in one case of probably sixteen years duration were the reactions so severe that it seemed best to stop treatment even though definite improvement was noted. The usual initial dose was 0.3 c.c., intramuscularly, in the deltoid region. Subsequent doses were increased, decreased or repeated depending upon the local and general reaction, upon the clinical course of the illness, and upon the changes in the blood agglutination titer. The interval between doses was from three to seven days. Reactions, local and general, were allowed to subside before the next dose was given. Severe reactions were usually deliberately avoided, although some cases seemed to require definite reaction-producing dosage. If clinical and serological improvement was not evident within a reasonable time, intravenous dosage¹⁷ was resorted to (fifty-three patients were given from one to three doses intravenously, usually one dose of fifty million killed organisms). Reactions to the intramuscular route varied from a slightly lame arm at the site of injection to severe malaise, chills, and high fever. Intravenous vaccine usually produced sharp reactions but never, in any instance, anything approaching a fatal outcome although it was given to two patients past eighty, one of whom

had had a severe myocardial damage for many years. This patient made a spectacular recovery, although a small dose of vaccine intramuscularly still seems essential once monthly to maintain her resistance.

The number of doses of vaccine also was suited to the individual. A usual course was eight doses at about weekly intervals, followed by a few doses at fortnightly intervals, and then once monthly until many months had elapsed without sign of recurrence. When relapses occur in patients previously treated—and they do occur commonly—a few more doses of vaccine usually suffice to bring about remission, although a few patients show evidence of requiring this monthly dose for an indeterminate time.

My effort has been to secure clinical improvement with a steadily rising blood agglutination titer. *Clinical improvement almost invariably will keep pace with the rise in titer.* In a few patients a titer of 1:200 or even higher seemed essential to recovery. The average patient will show clinical response by the time the titer has reached 1:160 or 1:640. A few patients have made clinical recoveries with titer no higher than 1:80. It is my aim to keep the titer at the optimum level for that particular patient until clinical recovery has occurred, by frequent dosage, large dosage or intravenous administration, as may be necessary. A gradually lowering titer, after recovery, is considered all right, unless relapse occurs, when the effort to elevate the agglutination titer is resumed.

Acute cases are not treated with vaccine if their blood agglutination tests show a high titer since nature is accomplishing all that vaccine can be expected to do. Since relapse is almost invariably accompanied by a drop in titer, vaccine given at this point would be of value.

Brucellosis, in the vast majority of cases, is a self-limited disease only in that the acute stage limits itself (if the patient survives, and the death rate is probably not over one per cent—a fraction of one per cent if chronic cases are included in the mortality study). Some of these acute cases recover completely without relapse but I suspect that this fortunate group is small. The others go on in the

chronic phase of the disease, perhaps with minimal symptoms that never require medical attention but more often with fatigue, mental apathy, muscle or joint pain or any of a tremendously varied list of complaints and conditions. Some may never have another acute illness but many have repeated severe attacks over a period of years. It is for these cases and for the persistent chronic cases that vaccine accomplishes most.

The question of reinfection is still unsettled. I can only point out that recurrence of brucellosis has appeared to be most common in those farmers whose herds have repeatedly been swept by Bang's disease.

Foshay and his associates¹⁸ have shown horse and goat specific antiserum to be of great value in acute cases of brucellosis of less than four months duration. Intravenous neo- or sulfarsphenamine has been urged by several but has proven disappointing in the few patients to whom I gave it. Intravenous typhoid vaccine (true shock therapy) was a complete failure in the two cases to whom I gave it. With chemotherapy other than the arsenicals, I have had no experience.

Removal of the gall-bladder, in the presence of such a focus of infection may be essential in some instances. I have had apparent success in such cases by the use of six meter diathermy through the gall-bladder, in conjunction with vaccine therapy. Similar experience in salpingitis has been noted.

Of the 171 cases reported, 132 had treatment with B abortus vaccine, the remaining thirty-nine had inadequate treatment or no treatment. Of the treated cases forty-two per cent were clinically cured, thirty-six per cent were markedly improved. Results then were satisfactory in seventy-eight per cent. Eighteen per cent were improved to some degree. Three per cent showed no definite lasting improvement. It is, of course, possible that the last two groups comprised a few cases in which erroneous diagnosis of brucellosis were made. There were no deaths in the entire series.

No controls were possible, of course, these all being private patients. However, the thirty-nine untreated and inadequately treated case group serves as a fair index of what happens to these untreated cases. Thirty-two continue to have recurring symptoms of brucellosis—seven are either well or have symptoms the origin of which are indeterminable.

In this community no new cases have been noted among the non-farming population since pasteurization of milk was introduced in 1934.

Summary

Observations are made on one-hundred and seventy-one cases of brucellosis, fifty-one of which have been watched from two and one-half to four years. Differential diagnosis is stressed, with discussion of some of the most common and important diagnostic errors. Treatment with B abortus vaccine intravenous and intramuscular is discussed in detail. Diagnostic procedures are described.

Conclusions

1 Brucellosis is still not recognized in its full importance.

2 Diagnosis is still difficult, in spite of the three laboratory procedures, largely because of the multiplicity of diseases and syndromes simulated by brucellosis.

3 To ignore "partial" blood agglutination titers or to fail to do either the intradermal test or the opsono-cytophagic test is to overlook a majority of the cases of brucellosis that come under our observation.

4 Vaccine therapy gives great promise in the majority of cases if intelligently used, clinical recovery occurring in the majority of cases.

5 Vaccine may be used intravenously with reasonable safety if proper precautions are observed. Its efficacy seems proven in selected cases.

6 Relapses are common after vaccine therapy but rarely are they severe, usually yielding to a few doses of vaccine.

References

1 Harris, Harold J. *NEW YORK STATE JOURNAL OF MEDICINE*, 34 1017, 1934

2 Simpson, Walter M. *Jour. of the Indiana State Med. Asso.*, 27 564, 1934

- 3 Rutherford, C. W. *J.A.M.A.*, 104 1490, 1935
 4 Kulowski, Jacob *Surg., Gyn., and Obr.*, 62 759, 1936
 5 Evans, Alice *J.A.M.A.* 103 665 1935
 6 Keller, Alvin E. et al *J.A.M.A.*, 107 1369, 1936
 7 Hardy A. V., et al *J.A.M.A.* 107 559, 1936
 8 Queries and Minor Notes *J.A.M.A.*, 102 1633, 1934
 9 Evans, Alice. Personal communication
 10 Huddleson, Johnson, and Hamann *Am J Public Health*, Sept. 1933
 11 Giordano, Alfred S. *J.A.M.A.*, Dec. 21, 1929

- 12 Huddleson, I. Forest et al *Technical Bull Michigan State College*, No 149, p 35-51, May 1936
 13 Hughes, M. L. *Mediterranean, Malta or Undulant Fever*, MacMillan Co., New York, 1897
 14 Meyer, K. F. Personal Communication
 15 Angle, Fred E. *J.A.M.A.*, 105 939 1935
 16 Yeckel, H. C. and Chapman, O. D. *J.A.M.A.*, June 10, 1933
 17 Di Guglielmo et al Quoted by the Italian correspondent, *J.A.M.A.*, March 15, 1934
 18 Wherry, W. B. O'Neil A. E., and Foshay, Lee *Am J Trop Med*, July 1935

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., Dr P.H., *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Perversion or Madness

Young man, single, worker, suffered from mental conflicts due to homosexuality. Manic depressive, depressed type.

"My mind is not clear, not steady"
 Been treated much in a New England city. No result. Been advised by a physician, patient claims, to get married to a woman. This was almost unbelievable, or if true, it was bad advice.

His chief problem was to get rid of the homosexual habit and live with a woman "like everybody." Once, years ago, he actually cohabited with a woman, but under extraordinary circumstances and it never occurred again. He was boarding with a family and one day, when he and the housewife happened to be alone, she came to his room and enticed him to have relations. Patient was twenty-four years old and his temporary partner forty-eight. The second time he refused and since then she has hated him and has contributed largely to his misfortune by subtly spreading the news of his sexual condition. A man can have no greater enemy than a woman who offers herself in adultery to him and is rebuked.

This unique event in his life "convinced" him that he was able to have sex intercourse with a woman. He adds, though, that, while he could consummate the act, he was entirely indifferent to it. He had a feeling of disgust for the woman.

Influenced by public opinion, he felt unhappy over his homosexual inclination and feared and "hated" it much, although he greatly desired contact with persons of his own sex.

As a child he had slept with an older brother who tried successfully to debauch him. Once, when sharing his father's bed, it was the patient, then a mere little boy, who attempted sexual connection. Astonishingly his father who at first resented it and

punished him, later tolerated his boy's caresses.

Since that time he has known all sorts of men and for a whole year he frequently visited a house where several male homosexuals met daily.

Patient described himself as a passive and active homosexual and as one who in his childhood had always wished to be a girl. He used to put on female clothes and play like a little female.

He was a sickly child and probably much spoiled by his parents. He began to walk late, at five. The same with talking—and he also stuttered.

Physically this patient is in good health. His body is masculine, the genitals are well-developed, although the penis is smaller than expected. The pubic and chest hair is sparse. So is the facial hair, despite the fact that he shaves. His intelligence is between dull and average.

While his homosexual tendency has had its beginning as result of his childhood environment, it seems to be clear that this patient is not suffering from acquired homosexuality like the majority of his species. There must have been a strong congenital trend.

Therefore, it was a great risk to induce him to associate with a girl in wedlock. Such a union might have made both him and her extremely unhappy and wrecked their lives, as it often does.

For the last couple of years, because of his effort to reject his abnormal sex habits, he has had no sexual friendships, neither of one kind nor of another. There was no need, consequently, to take a decision. It was best for him to go about his business and try to be occupied with other matters. In fact, there was no necessity of getting

married at any time, since he really did not crave it, but wanted merely to make a concession "to the world"

Moreover, it was made clear to him that while homosexuality was not to be recommended, it could not be regarded—from a

physician's viewpoint at least—as immoral or objectionable. If a choice must be made between "going insane," no matter how mildly, and practicing an act which was regarded as unnatural, the latter alternative was undoubtedly to be accepted.

Refuge

In 1928 a woman of thirty, a lawyer's wife, herself an ex-journalist, having two children, came complaining of dull pains in the abdomen and nausea. She "cannot eat because the food repeats." The examination showed nothing positive or suspicious. She slept well.

She was on "tolerable terms" with her husband, she stated, and quite happy with the children.

But at the second visit she insisted that she was restless, she could not stand the noise in the street and was "bothered by a choking sensation."

She was afraid of something indefinite, which she later admitted amounted to a "fear of insanity." She had "lost interest" in most things that had been dear to her. She was asked again whether her relationship with her husband was friendly and she replied with a long, trailing "Oh, yes" rather too loud for a plain affirmation. This overemphasis was the key that opened the door to the real situation. There was no doubt that she had to cover up something she did not care to divulge.

As to the children, she felt an "urge to leave them in the house" and go away, although she had never done it.

This time she cried and said that she often cried without any known reason.

The husband was invited to the doctor's office. He was a large, jovial man, who liked to enjoy life. He knew that she resented his being away evenings with friends. But she would be welcome if she only consented to accompany him. He

played cards at this or that friend's house or chatted. She, however, hated the games and small talk and was bored each time she did go with him. She sulked the entire evening.

He accused her of being too cranky and meticulous with the children—an overattentiveness which clinched with her unavowed desire to put as much distance as possible between her and her husband. But this flight into the exaggerated care of the children was also unsatisfactory, as she really ceased to be fond of them. Mental illness would have been a more logical escape. She was inclined toward it, but fortunately she did not go so far.

There was no need of a very deep analysis to find that the spectre of an old love, from the days of her early adolescence, had come back to haunt her dreams. It had been but a passing caprice and she had not met that boy again, nor did she know what had become of him. Consciously he was completely "wiped off her mind."

It was sufficient to reflect these inner thoughts of hers aloud, in order to make her smile and to cause her to treat them as highly ridiculous. This was the beginning of the end of her trouble.

Of course, both she and her husband had to reach a compromise whereby he would avoid neglecting her and she would accept some of his habits.

Now, in 1936, this woman is still well, nothing bad has occurred and the marital relations have not been disturbed.

611 W 158 St

"THIS PERPETUAL BELLY"

Emerson, in his essay, *Representative Men*, says "What can I do against the influence of race in my history? What can I do against hereditary and constitutional habits, against scrofula, lymph, impotence, against climate, against barbarism, in my country? I can reason down or deny everything, except this perpetual belly, feed he must and will and I cannot make him respectable."

A Latin student, when asked to make, at

sight, a free translation of *facilis descensus averni*, with a sudden burst of enthusiasm replied, "Going down hill is easy, the hell of it is to get back."

The accumulation of fat which results in any form of ptosis is easy, insidious, undermining, corroding and brings in its train conditions which are dangerous, so, as the Latin student said, It is Hades to get back—Prof W G Anderson, M D, Yale Univ

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EDITORIALS

A Ubiquitous Lesson

The current politico-economic scene holds many lessons for self-styled liberals, in the profession and out, who have been playing with the idea of state medicine. The most extreme example is furnished by Russia, where, in fear of deviating in some minute detail from the party line, executives and engineers have abandoned all initiative and personal judgment, and industry is lapsing into a paralysis of indecision. Admittedly this is an extreme case, but in less critical times the members of a state bureaucracy are almost as easily intimidated by the threat of losing their political necks.

The Fascist states present a similar spectacle. In Germany scientific medicine is threatened by the "natural" therapy favored by some of the party leaders as well as by the racial discrimination which has terminated the careers of many brilliant clinicians and research workers.

It can't happen here? The industrial chaos prevailing in the Middle West shows how quickly impartial justice weakens before the partisanship of a strong administration.

All this may seem remote from medical practice, but from the long view it is entirely germane. Under state medi-

cine, the physician holds a subordinate position in a political bureaucracy. His methods are controlled by the theories and prejudices of his administrative superiors, who may be laymen without medical training or experience. His initiative is deadened by the burdensome clerical routine imposed upon him. His judgment is circumscribed by often foolish regulations. Fear of political consequences weakens his professional independence.

These dangers, ignored or brushed aside as negligible by the advocates of compulsory sickness insurance, are revealed in their true proportions by current happenings wherever the state has invaded the normal sphere of private enterprise and crushed the independent judgment and liberties of the individual. The suppression of petty rights is soon followed by the obliteration of important ones.

The moral is that the physician must resist any attempt, no matter how seemingly unimportant, to bring his profession under political control.

Medicine Cooperates

The opposition of organized medicine to political control does not mean that the

Events

THE SAMARITAN HOSPITAL in Troy honored its founding fathers on May 20 at the annual dinner of the Board of Directors, when tribute was paid Dr James P Marsh, one of the founders and a member of the staff since 1896, Dr Frederick A Smith, the second of the two living founders and original staff members, and Dr John B Harvie, member of the consulting staff since 1906. The guests of honor witnessed the unveiling of a portrait of the late Dr Everard D Ferguson, one of the five original staff physicians and a founder, which was presented the hospital and unveiled by his son, Smith F Ferguson of Philadelphia.

THE TENTH ANNIVERSARY of Trinity Hospital, in Brooklyn, was celebrated at a dinner at the Waldorf Astoria on June 24.

A TESTIMONIAL DINNER to Dr David Ginkgold, president of the medical board of the Beth Moses Hospital, in Brooklyn, was tendered on May 27 at the Hotel Towers by the medical staff.

THE ALUMNAE ASSOCIATION of Mercy Hospital, of Buffalo, held its annual spring supper dance at the Wanakali Country Club on May 22.

Newsy Notes

HALF OF THE TOTAL GROUP hospitalization enrollment for the entire country is to be found in New York State, declared Dr Claude W Munger, president of the American Hospital Association, at the hospital convention of New York State on May 20.

A PLEA FOR THE FREEDOM of "voluntary hospitals" from governmental control was made by Dr S S Goldwater, Commissioner of Hospitals, in the luncheon address at the thirteenth annual conference of the Hospital Association of New York State, at the Astor. "It is the function of government," he said, "to pay for all free work in voluntary hospitals, if," he added with emphasis, "you want to see the whole ideal of American democracy fail here and now."

"Irreplaceable losses in the relationship between patient and doctor" would follow, he said, if voluntary hospitals were government controlled, with the resultant tendency to institutionalism, centralization of the profession and mechanization of hospital service. Dr Goldwater concluded with praise of the Associated Hospital Service, five-cents-a-day group hospitalization plan, but said it must be extended to include persons in the lower income groups if it wished to be really successful.

THE UNITED HOSPITAL FUND has distributed a total of \$1,441,866.97 to member hospitals on the basis of free services rendered last year, it is revealed by Edwin P Maynard, vice-president of the fund.

Trustees of the organization voted grants that brought the entire amount to the present total. The funds distributed on May 25 amounted to \$728,390.19.

In addition a sum of \$275,000 has been set aside by the distributing committee for future allocation to hospitals for emergency needs.

Grants for medical social service work were also given to nine volunteer women's committees connected with municipal hospitals and seven Catholic hospitals also received money.

. . .

THE CHARGES AGAINST THE sit-down strikers in the Jewish Hospital in Brooklyn have been either dismissed or the strikers given suspended sentences, at the request of the hospital directors. The charges involved forcible entry, endangering patients' lives, committing a public nuisance, conspiracy to prevent nurses and interns from working, and unlawful assemblage. The hospital directors urged the court not to conduct any further prosecutions in the case because they felt many of the defendants had been led into their present predicament by outside organizers and agitators. It was a generous gesture on the part of the directors, remarks the Brooklyn *Eagle*, and indicated the lack of any desire merely to secure the punishment of offenders but rather to assure the future safety of patients. It will be hoped that hospital employees will take to heart their experiences and realize that they cannot seek to right their grievances—no matter how just they

to say anything about them? That is in brief the net finding of the committee, after taking tomes of testimony from the Ministry of Health, the various associations of local authorities and of their servants, also the Society of Medical Officers of Health, the Royal Medico-Psychological Association, and bodies representing architectural, structural engineering, gas and electricity, and other interests.

But fortunately it is equally British, if the Committee on Costs cannot find anything to say about costs, to try to produce some other information that will be of use.

So, as their report is digested in *The British Medical Journal*, the Committee "avoids cost figures as far as possible and discusses the respective advantages of different methods of planning and equipment."

Perhaps we can learn something from these recommendations, with due allowance for the different conditions here.

For example, they take up the "Ward unit" of the acute general hospital, by which they mean a self-contained unit under the charge of one sister, comprising about thirty beds in one or more wards with associated service rooms. The committee thinks that such a ward should include at least four one-bed rooms. As to whether the remaining twenty-six beds should be in one large ward or two or more smaller wards there is much to be said on both sides. The smaller wards offer greater privacy for the patients, provide opportunity for classification, limit the spread of infection, and facilitate periodical cleaning. The large ward is simple and economical to plan, easier to supervise by the nursing staff, and lends itself more readily as a rule to a good arrangement of window space. The committee is evidently impressed by the advantage of replacing the large ward by smaller wards. It recognizes that this plan may mean increased capital cost, though this need not be more than £4 or £5 per bed, and with a moderate degree of subdivision, such as the replacement of the main ward by two smaller wards, a plan might be devised which would entail no extra cost at all.

The space per bed is usually expressed in cubic feet, and this is also open to a fallacy because height is relatively unimportant in comparison with floor area and

distance between bed centers. With an adequate area to each bed and sufficient distance between adjacent beds the height can be determined by considerations of proportion and amenity. The Committee found general agreement among its witnesses that for convenience of nursing in acute medical and surgical wards a wall space of eight feet between bed centers is desirable.

As for the total width of the ward, having regard to the traffic along the central gangway, the London County Council has ordained twenty-six feet, the Ministry of Health in 1924 recommended twenty-four feet, which would leave ten feet for the gangway. The Committee's view is in favor of the greater width.

More precise figures are set out for the the operating theatre and ancillary rooms. It is considered that a good average provision of floor space for an operating theatre in a non-teaching hospital would be twenty-two feet by eighteen feet, for the anesthetizing room 140 square feet, and for the sterilizing room with hand-washing facilities for surgeons and nurses 230 square feet in a single suite and 300 square feet when there are two theatres and anesthetizing rooms with ancillary accommodation common to both. Stress is laid on the desirability of direct access from the anesthetizing room to the theatre and of exit from the theatre other than through the anesthetizing room.

It is considered that in an acute general hospital of, say, 400 beds, residential accommodation should be found for the medical superintendent and his deputy, five other medical officers, matron, sisters, and nurses to the number of 133, and maids to the number of twenty-four. A separate house should be provided for the medical superintendent and small houses or self-contained flats for one or more married medical officers. Without such separate accommodation outside the administration block it is considered that it would be difficult to retain the right type of man in the hospital medical service. The appropriate room accommodation for married officers is indicated. Other resident medical officers may be housed in the administration block, each medical officer to have a sitting-room and bedroom, and there should be a common dining-room with serving pantry.

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Hospitals—Responsibility for Injuries Sustained by Irrational Patients

A case came before the highest court of one of the States in the Middle West a short time ago, in which the problem presented was the circumstances under which a hospital might be held to liability for injuries self-inflicted by an irrational patient.*

The institution involved was operated as a general hospital in a large city and was conducted for the care and treatment of medical, surgical, obstetrical, and pediatric cases. It did not undertake to furnish medical or surgical treatment, but was a place where various doctors in the vicinity sent patients under their care. The hospital attendants furnished, performed the usual routine services and carried out the instructions of the attending physicians. No patient was furnished with a nurse in constant attendance unless under a special arrangement.

The patient who was plaintiff in the litigation, was brought to the hospital by his brother who requested admission of the patient, and informed the admitting clerk that the case was under the care of Dr. J. The brother left without stating the nature of the ailment and Dr. J. was notified. Dr. J. gave certain instructions for the patient's care which were recorded in the "doctor's order sheet" and included a prescription calling for sodium amytal and the direction that he should have strict bed rest with no visitors. No history of the case was taken by hospital attendants, and no information was given them by anyone concerning his illness, previous condition or actions. A notation on the record made by Dr. J. on the date of admission was as follows: "Patient seen in the office (Dr.'s office) moderate depression and quite restless, wanted to come to hospital. He had a similar spell one year ago."

The patient was first assigned to a ward room where he remained for three days and then he was transferred to a single room. That room had one window, the lower half of which was barred, and the upper pane of which could not be lowered.

The hospital records indicated that for

three days his condition was uneventful. On the day that he was transferred to the private room the nurses' notes contained the following entry: "A.M. 3 (18th Awake—talks very peculiarly—eyes have wild glare—restless—very depressed—seen by Dr. C (intern)." The nurse who made the entry had been sufficiently disturbed to call the night supervisor and the intern had given a sedative. On the same day before his transfer from the ward, an intern who saw him made the following comment which was noted in the chart: "Patient is a white male of stated age, well-developed, well-nourished, walking about. Appears to be much depressed, is very restless, is walking about ward. Asking for folks to be sent for and asking that they be told to pray for him. Seems to think he has done something wrong and wants to confess."

During the time the patient remained in the private room there were on that floor a graduate nurse, a supervisor, and four student nurses. One of them was in his room every thirty or forty minutes and probably more frequently. When Miss M., one of the nurses, went into his room she found him on one occasion sitting on the edge of the bed, his face in his hands. She asked him to lie down, and he did so without speaking. No restraint to confine him to his bed was attempted, however. Later one of the student nurses also found him sitting on the edge of the bed and at her request he got back into bed. At about four o'clock that same afternoon two nurses observed him to be quietly lying in bed. At 4:30 P.M., however, a loud noise was heard, and investigation showed that the patient had jumped out of the window, after first breaking the upper pane. The window was located on the third floor and although he sustained very serious injuries the patient survived. Later on when questioned by a specialist in mental and nervous diseases as to how he went out of the window the patient stated that it was "decided very quickly. It took him just a matter of a few moments to decide what to do."

The patient brought an action to recover damages for his injuries against the hospital. He charged in his complaint that the injuries were caused due to the hospital's negligence.

* Messedahl v. St. Luke's Hospital, 259 N. W.

may be—in the same manner that workers might in a steel mill. In the cases of hospitals the welfare of helpless patients is involved.

A DRIVE HAS BEEN LAUNCHED by the New York Chapter of the Interne Council of America for a \$1,000 annual salary for the 500 internes of the municipal hospitals.

Public hearing on a bill to this effect, introduced by Alderman James A. Burke, of Queens, was asked in telegrams sent to Alderman Walter Hart, of Brooklyn, chairman of the committee on local laws.

This was announced by Dr. Joel Hartley, chairman of the chapter, following a meeting of internes representing the 1,000 members of the council in both voluntary and city hospitals.

"Despite the high quality and indispensable character of their service," Dr. Hartley said, "the interns have been the lowest paid of the city's employes, having only recently been granted a \$15 monthly 'pin money' handout."

THE TROY HOSPITAL Alumnae Association held a Nursing Institute on May 26-27 at the hospital in charge of Miss Lillian M. Anslow, chairman of program. Demonstrations were given by the supervisors of newer nursing procedures, and lectures and discussions by the doctors on the newer drugs and treatments.

DR. S. S. GOLDWATER, Commissioner of Hospitals, announces the inauguration of an Institute for Teachers of Men and Women Hospital Attendants, to instruct nurses' aides in "doing the common task in an uncommon manner." It is believed by the Department that one result of the eight-hour day, which became legally effective on July 1, will be a more economical use of the services of fully trained nurses, and an increasing reliance upon the Attendant or Aide group—a group which, if carefully trained, can safely be entrusted with the performance of many bedside tasks. The

principal aim of the Institute is to explore effective methods of teaching for the Attendant class, already numerous in both municipal and private hospitals and destined to become more numerous with the passing of the years.

BENJAMIN TAYLOR, thirty-four years old, a patient at the Johns Hopkins Hospital, was killed and two operating-room attendants were injured when anesthetic gases exploded during an operation on June 1, according to a dispatch from Baltimore.

Mr. Taylor was undergoing an operation for a carbuncle on the neck. The operation was nearly completed, it was said, and an electric cautery machine was being used when suddenly there was an explosion of the gas in the patient's lungs, killing him instantly, hospital authorities said.

A nurse standing near the table and another who was administering the anesthetic were burned. Neither was seriously injured. The operating surgeon escaped injury.

Dr. Winford Smith, director of the hospital, said in a statement:

"The gases in mixture ordinarily are not explosive—oxygen, nitrous oxide and ether. We use them in conjunction with cautery thousands of times every year. It was just one of those unexplainable accidents that happen."

• • •

THE MEDICAL STAFF of Rome and Murphy Memorial Hospitals on May 25 notified the city that after May 31 its members no longer would serve hospitalized relief cases without compensation. This was the second ultimatum. April 6, the nineteen physicians advised the welfare department they wanted \$200 a year each for treatment of hospitalized relief clients. They set May 1 as the deadline. Corporation Counsel M. J. Larkin advised the city is required by law to take care of its needy sick and therefore the doctors can compel payment.

Declaring an emergency effective, City Health Officer L. N. Eames, M.D., called upon the aldermen to appropriate sufficient funds to pay physicians for care of hospitalized relief cases.

"Why in the world did you write a policy on a man 98 years old?" asked the indignant insurance inspector.

"Well," explained the new agent, "I

looked in the census report and found that there were only a few people of that age who die each year."

—Colorado Medicine

Across the Desk

Bad Times, Good Health, Good Times, Bad Health

Considerable surprise has been expressed, during the business slump, at the continued good health of the people and the low death rate. The depression has been compared to a war, a famine, a visitation of the plague, or some other such calamity, and many have apparently expected disease and death to play havoc among the unemployed and those on reduced income.

Nothing of the kind has happened, and as we emerge from the depression period some explanation seems called for. In probing for the cause, a California physician with an analytical mind, Dr. Emil Bogen of Olive View, has made the intriguing discovery that the health of the people, over a long period of years, has always been better in bad times and worse in good times.

The clearest and most accurate index of the general health of the people is the death rate, and the mortality figures are readily obtainable and easily charted, says Dr. Bogen in a paper read before the Southern California Medical Association, and now published in *California and Western Medicine*. When this is done, the chart of the rise and fall of the death rate can be superimposed upon a chart of the rise and fall of prosperity, and we see before our eyes the death rate going up when prosperity goes up, and going down when prosperity falls! As Dr. Bogen puts it, "the fatal cost of business prosperity becomes evident, and the life-saving value of a cessation of commercial activity is revealed." The most casual inspection of the figures shows sharp drops in mortality rates following the beginning of economic declines, and actual rises in periods of business booms.

Mysterious Causation Seems at Work

And it is not only in this country that this strange game of follow-my-leader is found. In England and Wales and, indeed, wherever figures are available in modern industrialized communities, not only for the recent depression, but for all the commercial cycles of the past century, the death rate goes down instead of up in hard times.

Some may say that the death rate rises in prosperous times because people overeat, and

falls in bad times because they eat less, but this reasoning proves fallacious when we examine the figures, say, for tuberculosis, a disease closely related to diet. Undernutrition favors its development and an increase in the diet reduces the mortality.

Fortunately for the purposes of this investigation, the tuberculosis death rate is available for large American cities like New York, Boston, and Philadelphia for more than 120 years. Analysis of the curve of mortality from tuberculosis, covering nearly the entire life of our industrial civilization, shows as clear as daylight that tuberculosis rises in prosperous times and falls as business falls.

Some mysterious causation seems to be in operation here, by which the Grim Reaper speeds up as the factory wheels begin to whirl, and slackens the swing of his scythe as they subside into silence. Perhaps we use more alcohol and indulge in more dissipation in the days and nights of prosperity. Perhaps the increase in traffic and personal contacts, with greater chances of infection, the nervous strain of boom times, the greater physical and mental exertion, may have something to do with it. Perhaps the rest from labor during depression periods decreases the death rate, and perhaps the tuberculous and others in poor health and strength are the first to be laid off when the slump comes and the last to be re-employed when it ends, so that the compulsory rest may go first to the very ones who need it most.

Food is Scarcer When Times are Better

Another reason, however, occurs to the mind of our California investigator. He points to something that every consumer has sadly noticed, the sharply rising prices of food that accompany the return of good times. The housewife must lay out her money more carefully and the market-basket comes home with less in it. In plain English, Dr. Bogen tells us despite the almost universal popular belief to the contrary, people eat more in times of depression and therefore, are healthier, and eat less in times of commercial prosperity, and therefore die of

in caring for him while he was mentally deranged, delirious, and not in possession of his mental faculties. Knowledge on the part of the hospital of these conditions was specifically alleged in the plaintiff's complaint.

The facts as developed by the evidence on the trial were substantially as outlined above. There was testimony by plaintiff's expert that he had been suffering from "manic depressive insanity." There was testimony by plaintiff's relatives that before entering the hospital he had talked about intentions of suicide. However there was no proof that any such information had been given the hospital before the man had jumped from the window, nor was there any evidence that his physician had left any special instructions as to constant care or restraint.

The case was submitted to the jury and the result was a judgment in favor of the plaintiff in the sum of \$16,000. An appeal was taken on behalf of the hospital to the highest court in the state, the contention urged upon the appeal being that taking all the evidence viewed in a light most favorable to the plaintiff, there was no support for a finding of negligence, and hence of liability on the part of the defendant.

The appellate court ruled that the defendant's contention was correct and reversed the judgment of the trial court and directed judgment for the hospital. In its opinion the court said:

Certainly, when experienced doctors in charge of the case, with knowledge of all that had occurred did not consider restraints necessary, it was not for the interns or nurses to take it upon themselves to apply restraints upon a patient who had not displayed a proneness to do himself or anyone else injury. It is conceivable that application of restraints upon the person of one who is already nervous may induce an overwhelming desire to fight against the bonds, thereby doing himself more harm than good. The advisability of applying restraints should rest in the discretion of the attending physician. With respect to the duty of hospital attendants to obey instructions of the physician in charge of the patient, it is stated in *Byrd v. Marion General Hospital*, 162 S. E. 738, 740: "The great weight of authority, however, establishes the principle that nurses, in the discharge of their duties, must obey and diligently execute the orders of the

physician or surgeon in charge of the patient unless, of course, such order was so obviously negligent as to lead any reasonable person to anticipate that substantial injury would result to the patient from the execution of such order or performance of such direction. Certainly, if a physician or surgeon should order a nurse to stick fire to a patient, no nurse would be protected from liability for damages for undertaking to carry out the orders of the physician. The law contemplates that the physician is solely responsible for the diagnosis and treatment of his patient. Nurses are not supposed to be experts in the technic of diagnosis or the mechanics of treatment."

We do not agree with respondent that the employees of defendant in the exercise of reasonable care should have ascertained plaintiff's condition previous to his entry to the hospital. To do so would have required interviewing relatives. Plaintiff was left at the hospital by his brother without a word of information as to his ailment. The instructions received from his doctor indicated nothing more than that plaintiff was in need of rest. He was under Dr. J's care, who presumably was aware of his patient's condition. Dr. J was not an employee of the defendant, as far as the record shows. His negligence, if any there was, cannot be imputed to defendant. If defendant was a hospital maintained and operated for the purpose of treating and curing diseases, physical and mental, and having its own staff of doctors and specialists for that purpose, it probably would be its duty to ascertain all it could concerning an external patient's previous history, especially so with respect to hospitals specializing in the cure of mental disorders. In the instant case, plaintiff's relatives must be charged with knowing the nature of the services rendered by defendant, that no one would be in constant attendance, that defendant did not specialize in mental cases generally and knew nothing of plaintiff's case, particularly. It would be a harsh rule indeed that would charge the authorities of a general hospital to go in search of the relatives of every patient entering it under the care of a physician of his own or his relatives selection, and ascertain independently of the attending physician, the nature of the patient's ailment and then to exercise their own judgment as to treatment required.

It is important to note that the appellate court in deciding this appeal, decided it entirely apart from the general rule in this State that in most instances a hospital operated as a charitable institution may not be held responsible in damages for the acts of its doctors, nurses, interns, and attendants.

Much so-called "research" is a mere beating of air, a form of solemn trifling, wasteful alike of time and money.—*The British Medical Journal*

Patients in the older age groups do not necessarily present greater surgical risks than those in the younger age groups.—*Staff Meetings of Mayo Clinic*

Across the Desk

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CHART I—THE DEATH RATE AND BUSINESS
CYCLE

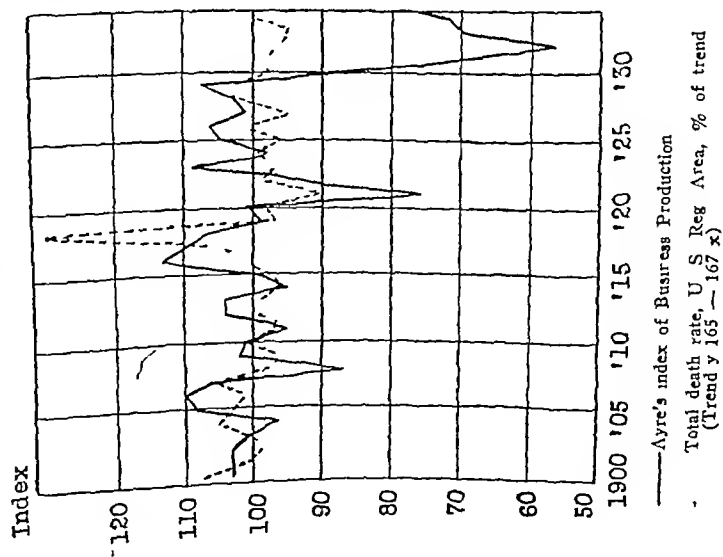
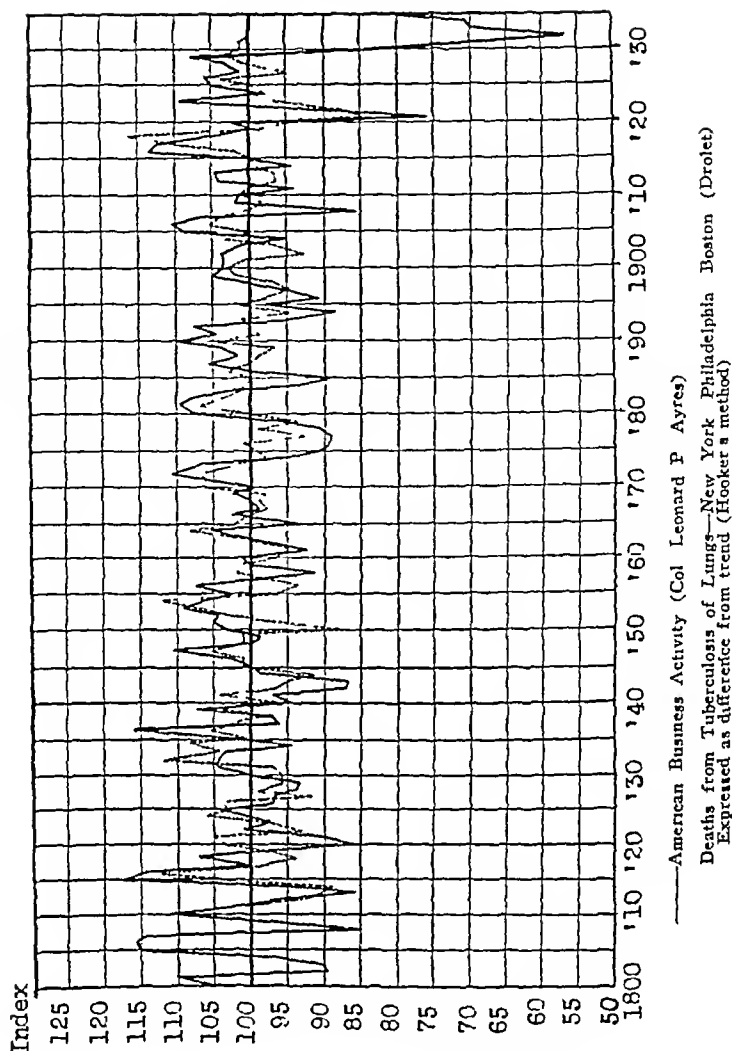


CHART II—PHTHISIS AND PROSPERITY



tuberculosis and other diseases of under-nutrition in what we call the good times. True, this seems so paradoxical as to be preposterous, and Dr Bogen, realizing that fact, rallies two striking pieces of evidence to the defense of his argument. First, take the figures for diabetes, traditionally associated with overeating. Diabetes, curiously enough, decreases in periods of prosperity and increases in times of business depression. If diabetes has any relation to diet, this suggests that people eat more in hard times and less in prosperous times.

Which leads our California investigator to his next piece of evidence—the per capita consumption of meat, as given in the *World Almanac*. We might naturally think that folks eat more meat in the prosperous years, but the cold figures show just the opposite—during prosperity, meat consumption tends to decline, during depressions it tends to rise.

More Money Buys Less

There can be no doubt whatever that the worker gets more pay in good times than in bad, but does his money buy as much? The index number of the purchasing power of the wages of union labor, as measured in terms of food, is available for the past two decades, and here also, we are told, the food value of union wages has run contrary to the death rate and to the curves of prosperity. The worker has had more money in good times, but it has bought less. The worker's nutrition is better when times are worse!

At any rate, we know that efforts to show

that the unemployed and their families have had poorer health during the depression have had no success at all. The unemployed frequently turn their energies to gardening, raising chickens and keeping pigs and cows, and their families revel in a diet of fresh vegetables, fried chicken, pork chops, rich milk and ice cream instead of provisions from the grocery shelves. Investigations of the health of school children have shown that their health was better, rather than worse, during slump periods.

The growls of certain social workers who predict dire results of our present social and medical system in a morbid undertone should now cease, Dr Bogen remarks. The terrible ravages of disease and death among the unemployed are non-existent. There is nothing to it. Of course this does not mean at all that funds and efforts spent on public health and social service should halt or even be lessened, but, at least, do not try to saddle any illness that exists on the hard times. Rather, we should realize that danger looms with the return of prosperity, that as prices rise out of proportion to the buying power of the masses, malnutrition and disease may be expected, and we should prepare to meet it. Our plans should be so made and carried out, thinks Dr Bogen, that energies expended to improve the health of the people should not take the form of emergency measures, to tide us over a temporary depression, but should rather be directed at the real dangers to health and life that lurk in the blaze and heat of the coming economic revival.

HOW MANY NEED HELP?

Within a small margin of error, about fifty per cent of the population goes through the year without any illness. Fifty per cent of the illnesses of the other half are not disabling. One-half of the remainder, or about 12½ per cent, are of a minor character, such as the common cold, and involve a disability of less than a week. This leaves about 12½ per cent who have serious illness and an expense for wage loss and for medical care sufficient, to constitute a real problem. Of these, many are able to meet the necessary expense from their own savings, by deferred payments or

from regular income, just as they meet other extraordinary expenses. Thus it seems reasonable to assume that five per cent—certainly less than ten per cent—of the total population are unable to meet their sickness expense without great sacrifice. This is still enough of a problem always deeply to concern organized medicine.

It is a testimony to the accuracy of these figures that when county medical societies have set up machinery to provide service for those otherwise unable to obtain it the number served has almost invariably been between three and five per cent of the total population.—J A M A

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Applied Physiology By Samson Wright, M D Sixth edition Octavo of 686 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$6 00

A Laboratory Manual of Physiological Chemistry By D Wright Wilson, Third edition Octavo of 288 pages Baltimore, The Williams & Wilkins Company, 1937 Cloth, \$2 50

Biological Time By P Lecomte duNoüy With foreword by Alexis Carrel, M D Octavo of 180 pages New York, The Macmillan Company, 1937 Cloth, \$2 00

Clinical Allergy Due to Foods, Inhalants, Contactants, Fungi, Bacteria and Other Causes Manifestations, Diagnosis and Treatment. By Albert H Rowe, M D Octavo of 812 pages Philadelphia, Lea & Febiger, 1937 Cloth, \$8 50

Woman's Prime of Life Making the Most of Maturity By Isabel E Hutton, M D Duodecimo of 150 pages New York, Emerson Books, Inc, 1937 Cloth, \$2 00

Out of the Test Tube. By Harry N Holmes, Ph D New edition revised and expanded Octavo of 301 pages, illustrated New York, Emerson Books, Inc, 1937 Cloth, \$3 00

The Cardiac Glycosides A series of three lectures delivered in the College of The Pharmaceutical Society of Great Britain under the auspices of the University of London By Professor Arthur Stoll, M D Quarto of 80 pages, illustrated New York, Sandoz Chemical Works, Inc, 1937 Cloth

High Blood Pressure By I Harris, M D Octavo of 132 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$3 75

Physiology and Pathology of the Heart and Blood-Vessels By John Plesch, M D Octavo of 188 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$5.25

Surgical Treatment. A Practical Treatise on the Therapy of Surgical Diseases By James Peter Warbasse, M D & Calvin M Smyth, Jr, M D Second edition in three volumes Octavo, illustrated Philadelphia, W B Saunders, 1937 Cloth, \$35 00

Historical Notes on Psychiatry (Early Times—End of 16th Century) By J. R. Whitewell, M B Octavo of 252 pages Philadelphia, P Blakiston's Son & Co, 1937 Cloth, \$4 25

The Little Things in Life The Vitamins, Hormones, and Other Minute Essentials for Health By Barnett Sure, Ph D Octavo of 340 pages New York, D Appleton Century Company, 1937 Cloth, \$2 50

Pediatric Dietetics By N Thomas Saxl, M D Octavo of 565 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$7 00.

Diseases of the Nose and Throat. A Text book for Students and Practitioners. By Sir St. Clair Thomson, M D & V E Negus, F.R.C.S. Fourth edition Octavo of 976 pages, illustrated New York, D Appleton Century Company, 1937 Cloth, \$14 00

A Brief Outline of Modern Treatment of Fractures By H Waldo Spiers, M D Second edition Octavo of 137 pages, illustrated. Baltimore, William Wood & Company, 1937 Cloth, \$2 00

Emanotherapy By F Howard Humphris, M D and Leonard Williams M D Octavo of 188 pages Baltimore, William Wood & Company, 1937 Cloth, \$3 00

REVIEWED

Nostrums and Quackery and Pseudo-Medicine. By Arthur J Cramp, M D Volume III Octavo of 242 pages, illustrated Chicago, American Medical Association, 1936 Cloth, \$1 50

This volume includes many patent medicines and proprietary remedies not covered in the two previous volumes. Analyses of many of the older preparations are brought up to date. This book is indispensable to any

physician who desires to know the composition of the innumerable secret preparations advertised to the laity. It also exposes the fraudulent and extravagant claims made for these products by their manufacturers. The medical profession owes a debt of gratitude to Dr Arthur J Cramp who until recently was Director of the Bureau of Investigation of the American Medical Association.

CHARLES SOLOMON

ORDERING BOOKS

As a service exclusive to our readers books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W 42nd St., N Y C.) postage prepaid. Order must be accompanied by remittance covering published price.

Rural Health Practice By Harry S. Mustard, M.D. Octavo of 603 pages, illustrated. New York, The Commonwealth Fund, 1936. Cloth, \$4.00

This book, as its name implies, is of interest primarily to health officers in rural areas. On the other hand, as technical procedures of public health work in their fundamentals are the same for municipalities and suburban or rural districts, the book may be read with profit by physicians wherever located. It is in the administrative phases that the subject matter largely deals with rural problems, therefore, the book is recommended particularly to members of the medical profession who practice in the rural and small town areas. As the work of any physician practicing modern medicine brings him into direct or indirect relations with public health activities every day, it is desirable that he keep informed on matters such as are discussed in this volume.

ALFRED E. SHIPLEY

The Diagnosis and Treatment of Diseases of the Liver and Biliary Tract By John Phillips, M.D. Revised by Russell L. Haden, M.D. (Reprinted from *Oxford Monographs on Diagnosis and Treatment* Octavo of 539 pages, illustrated. New York, Oxford University Press, 1936. Cloth, \$7.50)

This is an excellent book. It covers the field of anatomy, physiology and diseases of the liver and biliary tract in a comprehensive manner. Liver function tests are described and evaluated for the clinician.

The clinical presentation of liver and biliary tract disorders is concise and up to date. The text is easy to read and to understand.

Treatment is discussed in an orderly and practical manner.

The bibliography is complete. This book will be of value to students as well as to those interested in general medicine.

EUGENE R. MARZULLO

Medical Morals and Manners By Hubert A. Royster, M.D. Octavo of 333 pages. North Carolina, University of North Carolina Press, 1937. Cloth, \$2.50

Dr. Royster has collected his papers and addresses of the past forty years and now offers them in book form. They are in the Oslerian tradition, though distinctive in thought and style. Although delivered or published at various periods, they "hang together" remarkably well, and by that we do not just mean that the medical common denominator is what binds the matrix, apart from that, the implications are interrelated. While much of the subject matter has to do with surgery, a good deal of other ground is covered. Dr. Royster even (courageously)

writes a chapter on Women and the Doctor which combines shrewd interpretation and a degree of naïveté—something we fancy is almost inevitable when a mere man undertakes to discuss such a formidable and intricate topic. Mencken set a mark in his *In Defense of Women* which other men can hardly hope to approach—an achievement probably due to his feminine type of mind.

There are some unusual thumbnail sketches of country and small town practitioners of superior order at the end of the book—like the one about Budd of Chatham. Said Budd: "I was driving along the road late one summer afternoon, half asleep, with the reins between my knees, when a young fellow hailed me 'Doc,' he said, 'I wish you would lance this risin' on my leg for me.' Without examining it, I took out my thumb lancet, told him to put his foot upon the buggy wheel, and stuck the blade deep into a large swelling in his popliteal space. I give you my word the blood spurted four feet high. Realizing that I had opened the sac of an aneurism, I told him to grab it tight, and quickly tore up my linen lap robe and made a Spanish windlass. Applying this above the knee, I controlled the bleeding. I took him home, and that night I tied his femoral artery and, do you know, that d—n fool got well!" The same Budd got a voluntarily bed-ridden woman out of her long-occupied couch by undressing as if to share the bed with the maiden lady of uncertain age—result as the doctor climbed in at one side, the patient, who had not walked or left her bed in a year or more, got out at the other side and ran out of the house some distance down the road.

ARTHUR C. JACOBSON

Maternity and Post-Operative Exercises By Margaret Morris, C.S.M.M.G. Octavo of 152 pages, illustrated. New York, Oxford University Press, 1936. Cloth, \$2.00

This is a book of exercises intended for midwives, masseuses and nurses who have taken the "Maternity and Post-operative Exercises Diploma of the International Institute of Margaret Morris Movement." It is not suitable for physicians, yet interesting. Systematized exercises associated with proper breathing and timing to a slow steady rhythm are recommended after operations and delivery, including the first and second stages. Phonograph records for some of these exercises are available,—Schubert's music, slow tango tunes or drum rhythm. Professors Johnstone and Fraser have given their approval in separate introductions,—and Johnstone particularly has had experience with the system in his hospital. Though these exercises may

seem impracticable, it is quite possible that they may be very useful to bring about mental relaxation in the patient, and so lessen her fear of delivery

CHARLES A GORDON

Juvenile Paresis By William C Menninger, M D (The Menninger Clinic Monograph Series No 1) Octavo of 199 pages, illustrated Baltimore, The Williams & Wilkins Company, 1936 Cloth, \$3 00

The author has written a monograph on the subject of juvenile paresis, basing his report upon 43 cases of juvenile parietic neurosyphilis personally observed and 610 cases recorded in the literature

Juvenile paresis represents less than 2 per cent of all the cases of parietic neurosyphilis and 1 per cent of congenital syphilis The average age of onset is about 13 years In the families of the 653 cases, 56 5 per cent had some member with either clinical or serological evidence of syphilis In 55 instances there was mental disease present in one or more non-syphilitic members of the family Sixty per cent of the juvenile parietics were normal mentally prior to the onset of the disease In 75 per cent there were stigmata of congenital syphilis present

The results of treatment of this disease have been markedly disappointing More success has been attained in those who had a normal period of development prior to the onset of symptomology Best results were obtained through the use of diathermy, arsenicals and heavy metals Malarial treatment with the use of trypanamide has also yielded some good results

There is an excellent bibliography The book shows evidence of having been carefully prepared The author is conservative in his conclusions It should be of marked interest to the profession.

STANLEY S LAMM

The Harvey Lectures Delivered under the Auspices of The Harvey Society of New York, 1935-36 Series XXXI Octavo of 255 pages, illustrated Baltimore, The Williams & Wilkins Company, 1936 Cloth, \$4 00

The contents of the 1935-1936 volume of Harvey Lectures consist of

Proteins and Proteolytic Enzymes, Dr Max Bergmann

The Significance of Chimpanzee-Culture for Biological Research, Prof Robert M Yerkes

The Virus Tumors and the Tumor Problem, Dr Peyton Rous

Relations between the Parathyroids, the Hypophysis and the Pancreas, Dr B A Houssay

The Interrelation of Cerebrum and Cerebellum in the Regulation of Somatic and Autonomic Functions, Dr John Farquhar Fulton

The Influenzas of Swine and Man, Dr Richard E Shope

Malignant Cells, Dr Warren H Lewis

The Physiology of the Bronchial Vascular System, Dr I de Burgh Daly

Needless to say, the latest thought on these subjects is expressed This little volume deserves a place of its own, in every medical library

MAX LEDERER

Here's to Crime By Courtney Ryley Cooper Octavo of 454 pages Boston, Little, Brown & Company, 1937 Cloth, \$2 75

In describing the extent and ramifications of criminology, the author questions the fitness of the expression, "Crime does not pay," inasmuch as it has come to constitute one of the nation's biggest businesses A book of this type has, of course, a more general appeal, although medical men will find a special interest in the various chapters devoted to prostitution, venereal diseases and drug addictions No attempt has been made to correlate criminology with the incidence of venereal diseases, but the close association of prostitution and crime is apparent The story that the author introduces, exposing the disgustingly small practices of the genito-urinary outcast, has the same sinister significance to ethical practitioners as have the derelictions of some petty dishonest official to the generality of honest crime investigators

We feel that the subject of criminology and, especially the premise of the organization of the criminal class, is worthy of a dignified presentation, even if a popular reportorial appeal is intended We fail to see the stimulation of interest in such chapter headings as, Hussies in Hiding, Ladies in Parlor A, A Shot in the Arm, Good Morning, Judge There is much that is disturbing and disheartening to be read here by the neophyte in the study of crime, but the real student must find a more lasting method of crime prevention than by beating sex tom toms and clanging corruption cymbals

JOSEPH RAPHAEL

Contraception as a Therapeutic Measure. By Bessie L Moses, M D Duodecimo of 106 pages Baltimore, The Williams & Wilkins Company, 1936 Cloth, \$1 00

This small volume is a report of the work done at the Bureau for Contraceptive Advice in Baltimore

The Bureau was the result of informal discussions among a small group of men in the School of Medicine and Hygiene

of the Johns Hopkins University, among whom the late John Whitridge Williams was the leader. It was felt that the time had arrived when the practice of contraception, as practiced by the general population, should be given a more precise and scientific investigation than had come from the activities of the usual birth control clinic.

For this reason, the Bureau was set up to run for a period of five years. It was opened on November 2, 1927, ran for five years and then closed. Only those patients were received who had been referred by a physician, and in the five year period, 1152 cases were observed and carefully analyzed.

The Bureau was in charge of Dr. Bessie L. Moses, who is a trained obstetrician, and a careful scientific observer.

The facts set forth in this report may be relied upon, and they are of great interest to those interested in the growing subject of contraception.

WILLIAM S. SMITH

The Practice of Medicine By Jonathan C. Meakins, M.D. Quarto of 1343 pages, illustrated. St. Louis, The C. V. Mosby Company, 1936. Cloth, \$10.00.

This interesting book is novel in its physiological approach to diseases of the several systems, in its inclusion of hundreds of appropriate illustrations, and in the fact of almost exclusive authorship by one clinician.

Chapters on Metabolism, the Urinary System, and the Nervous System have been contributed by Doctors Mason, Scriver, and Norman Petersen respectively. The rest of the 1,300 pages is from the pen of the well-known Professor of Medicine at McGill University and Physician-in-Chief to the Royal Victoria Hospital. It is a matter of amazement and wonder that such a volume could issue from the experience of one internist.

Broad handling of each subject characterizes the volume and the author never hesitates to question or shelve an hypothesis, etiological or therapeutic. His rich physiological experience dominates the book, and his discussions constitute a refreshing and valuable part of the text.

The illustrations, 505 in number, are a splendid feature, presenting definite pathological and clinical pictures. They have been chosen with rare judgment and are truly illustrative, not exhibiting, as in some other books, the greatest edema, the largest caput medusae, the most marked cardiac hypertrophy, etc., but showing the usual average bedside findings. They, therefore, are

most helpful to the student and practitioner. Nordenson's eight colored plates of studies of sternal marrow (puncture) are beautiful and informative.

The volume was issued too soon to include discussion of chemotherapy in pneumonia and streptococcal infections (sulfanilamid, etc.) The author's comments on specific therapy, however, are sufficiently pointed to put us on our guard concerning excessive claims for any one product, and he emphasizes that the two principal means of combatting pneumococcal toxemia and threatening anoxemia are the early use of antipneumococcal serum and oxygen therapy.

Therapeutics throughout is on a very sound basis.

FRANK BETHEL CROSS

The Principles of Bacteriology and Immunity By W. W. C. Topley, M.D. & G. S. Wilson, M.D. Second edition. Quarto of 1645 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$12.00.

Seven years after the first edition of this well known textbook a new edition has now been published which gives an impressive account of the tremendous progress in Bacteriology made during that period. In the preface to their first edition the authors designate their work as a textbook for post-graduate students. There is no doubt that the second edition fully serves that purpose but it is much more. It is indispensable for the specialist in Bacteriology and Immunity. The work does not only contain an almost complete review of the literature but also a critical discussion of those problems which are not yet definitely solved, and many valuable suggestions to their solution. It is much more comprehensive than the usual textbooks of bacteriology and more integrating than the excellent works which have been written by a variety of authors. It is almost unbelievable that this vast subject has been mastered by two authors only.

The book is divided into four parts, i.e. General Bacteriology, Systemic Bacteriology, Infection and Resistance, The Application of Bacteriology to Medicine and Hygiene. The first part comprises the important subjects of metabolism, antigenic structure, variation, bacteriophage. The overwhelming number of new facts is critically reviewed and their significance adjudged.

In the second part a gigantic attempt has been made to classify bacteria on the basis of their chemical properties, their behavior in the animal body and their antigenic structure. The subject of filtrable viruses is presented in a brief but exhaustive account.

The last part deals with the pathogenesis

of infectious diseases, their epidemiology, diagnosis, prophylaxis and treatment

Each of the four parts reveals the familiarity of the authors with the subject on the basis of their experimental experience. As a whole, the work of Topley and Wilson is a textbook of an unique, high standard

ULRICH FRIEDEMANN

International Clinics A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc Edited by Louis Hamman, M.D. Volume 3, 46th Series, 1936 Octavo of 339 pages, illustrated Philadelphia, J B Lippincott Company, 1936 Cloth, \$3 00

This volume, as other volumes of the Clinics, contains many valuable and pertinent papers. In surgery the presentations of malignant melanoma and of subdeltoid bursitis (acute) are of interest. In medicine an instructive paper discusses Hodgkin's disease, lymphosarcoma and aleukemic lymphadenosis. Undulant fever, angina pectoris, bronchial asthma, and nonorganic fatigue in the child are presented instructively. There is, in a neurological-pathological conference, the discussion of a case of carcinoma of the nasopharynx which is well worth studying. This volume contains so much of value that its study will well repay for the time spent

HENRY M MOSFES

Facts and Phagocytes The Story of the Development of Hydrochloric Acid Therapy By Burr Ferguson, M.D. Octavo of 270 pages, illustrated Youngstown, Medical Success Press, 1936 Cloth, \$5 00

This book presents some clinical facts on the stimulation of the white blood cells by hydrochloric acid. The author gives credit to those contemporaries who have used hydrochloric acid with success, and who have expounded theories on phagocytosis

Were this book written in an impersonal manner it no doubt would assume a place of authority as regards the use of hydrochloric acid both orally and parenterally. Unfortunately the author spends too much space to expound his personal grievances against the constituted authorities of organized medicine and seems to have no patience with criticism. This leads him to present the book more in a form of a faddist, than as a scientific contribution

There have been many books written and theories accepted, many have remained in use, but even those that have been discarded have left their authors a decided place in medical literature.

The reviewer suggests that the next edition of "Facts and Phagocytes" be revised omitting all personal references and using a narrative style as against the style suggestive of propaganda

MORRIS ANT

Applied Dietetics The Planning and Teaching of Normal and Therapeutic Diets By Frances Stern Quarto of 263 pages, illustrated Baltimore, The Williams & Wilkins Company, 1936 Cloth, \$3 50

This practical work on dietetics will meet the needs not only of the well-trained dietitian but also of the physician, whether he be general practitioner or specialist in the field. Frances Stern has long since established a reputation through her efforts to bring dietetics to the level of understanding of the patient. She has studied the dietary peculiarities of the Armenian, Italian, and foreign Jew with the same zeal which she applies to the American. In her *Applied Dietetics* she has crystallized her vast experience in the food clinic of the Boston Dispensary, and this in conveniently tabulated form so that the physician in need can grasp as he runs, rather than be obliged to wade through endless academic bulk

Applied Dietetics covers in terse style the principles of nutrition involved in the planning of normal and therapeutic diets, environmental factors which influence diet, means and methods of "putting it over" to the patient (whatever be his mental status), tables and charts to facilitate computation and construction of diets, dietary outlines to show wherein the normal diet is modified to meet therapeutic indications, and finally, typical diets and menus of all sorts. The doctor of medicine will find in this book a valuable adjunct to his therapeutic armamentarium

GEORGE E ANDERSON

An Introduction to Pharmacology and Therapeutics By J A Gunn, M.D. Fifth edition 16mo of 240 pages New York, Oxford University Press, 1936 Cloth

The fifth edition of Professor Gunn's book was made to conform to the 1932 British Pharmacopoeia and the 1936 United States Pharmacopoeia. In spite of the fact that the author prepared this short work on pharmacology for the medical student, the subject is adequately covered and does meet the needs of the practicing physician

This book is heartily recommended as an authoritative and concise treatment of the subject.

CHARLES SOLOMON

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SOME NOTES ON POISONING BY *CLITOCYBE DEALBATA* (SOW) *VAR SUDORIFICA* (PECK)

SMITH ELY JELLIFFE, M D, *New York City*

Being "hoist by one's own petard" affords the stimulus for the present note. It also offers some evidence on a type of poisoning by a not uncommon species of fungus, the *Clitocybe dealbata* (Sow) *var sudorifica* (Peck), which Ford and Sherrick thought should have a specific name *Clitocybe sudorifica* (Peck) since *Clitocybe dealbata* (Sow) has been eaten apparently with impunity by many. Murrill in 1915 reports having examined the variety closely and claims it cannot be distinguished morphologically from *Clitocybe dealbata*. In view of a pronounced pharmacodynamic action, careful revision of the morphology of this variety (?) should be undertaken.

As an amateur mycologist for years, supposed to know his fungi, as well as his onions, to have had an experience of poisoning is amusing and profitable.

The season (1936) at camp on Lake George was exceptionally dry in June, July, and August. There were no fungi of any significance. My usual gatherings of *Russula virescens* and *Russula heterophylla* were absent and the numerous edible and enjoyable *Boletus* were conspicuous by their absence. *Agaricus (Psalliota) campestris* from the market, however were freely enjoyed save when the price climbed to seventy-five to ninety cents a pound. This was too much even for a Brillat-Savarin astronomer.

Even *Marasmius oreades* (fairy ring) was absent on the golf course near my camp. For many years it had been a steady stand-by during the summer for

soups, hashes, etc. In late September and October there was a little rain and the market had shut down on *A. campestris* and so, to the golf links! Here *Marasmius oreades* was semi-abundant but among them and growing in the same rings or in fairy ring like rings was another white spored fungus, which as a botanist I knew was not *M. oreades*, but it was so very similar I thought I would take a chance. I did not look it up in my library until later, but will mention certain differences at this time. It was, as stated, very similar to the fairy ring, but was a little more fragile, and a bit more moist. One of the features of *M. oreades* which I had grown to recognize even almost with closed eyes was its tendency to cling to the earth and pull up a bit of soil as one plucked it not breaking the rather tough stem. This *Clitocybe* only half clung to the soil and the stem was a bit shorter, larger, and less tough. The caps were very similar. Identical in color, in many specimens, especially the older ones, but younger and fresher specimens were a trifle whiter than *M. oreades*. The umbrella flared in typical *oreades* fashion, but the slight tawny umbonate mount of *oreades*, so well drawn in Gibson's work, was not there. The pileus was flatter. A few specimens on drying almost had the umbonate rise of *M. oreades*. These resemblances are here emphasized, for only a botanist or acute observer could separate the two species, especially when they were growing in the same ring side by side and intermingled.

We, a friend and myself, gathered about two cups of the mixed species and when I returned home I forgot to tell my maid to sort the more distinctly doubtful ones from the evident *M. oreades*. She also had gathered *M. oreades* before and knew them.

Two or three days later I had some excellent oyster stew with at least twenty-three specimens of my mixed collection. I was alone and forgot all about my intentions and doubts. Some cold salmon and vegetables followed and desert. This was at 5 P M my usual dining time, after a breakfast at 7 A M and no lunch. It was showery and beginning to be cold, the thermometer about 34-35° F.

Next day about noon (19 hours after eating) I noticed that the outside cold, wet weather was distinctly uncomfortable. I was chilly and hugged the kitchen stove a bit. As I had had a mild bronchitis with some small bronchopneumonic patches about three weeks previously and was just feeling better, although my vasomotors were unstable I at first thought maybe I had a recrudescence of my peribronchial infection. My forehead first, then arms and chest began to be moist and in about fifteen to twenty minutes they were wringing wet. This grew worse and worse and I was certain I was in for a pneumonia, or something, when I suddenly said to myself—"Mushrooms." I then asked the maid if she was all right and she reminded me that she had been invited out to dinner the night before and had not eaten any oyster stew. So I was sure it was mushrooms and then rehearsed my doubts as to the ones we had gathered mingled with *M. oreades*.

The perspiration spread, and was so heavy I was forced to change my underclothing (see account W G Smith). There was no salivation, no rhinorrhea, no diarrhea, no increase in urination, and no trace of gastrointestinal disturbance. My pulse had not changed, if anything it was a bit slower and steadier than usual, sixty-four. Apparently there were no blood pressure changes to palpitation. I had no blood pressure instrument at hand, and the nearest was fifteen miles away. Pupils were equal and unmodified and apart from the sweating and at first slight anxiety of this strange phenomena I noted no other sign. After about two

and a half or three hours I took ten m Tr belladonna, and ten to fifteen minutes later took ten m more. After about ten minutes or so there was a cessation of the sweating and of the repugnance to going into the cold damp air and "Richard was himself again." There were no after symptoms observed. Pulse went to sixty-eight—seventy-two but there was a slight increase in my activity. I had been sitting quietly by the stove for fifteen minutes. I had also tried to take a nap, but the sweating had been too abundant for comfort and the anxiety was appreciable for I recalled that muscarine poisoning often came on late and that its effects might be very protracted and serious.

The sweating was similar to that experienced following a good dose of Dover's powder without the quieting effect of the opium, or followed next day by a cathartic action which a dose of Dover's powder often accomplishes. I have never taken pilocarpine so I cannot compare the action.

Next day my botanical curiosity was rearoused and I sent specimens to the State Museum at Albany, after which I went through my herbarium and mycological literature I had kept and somewhat added to since young manhood.

Dr House at the Albany State Museum reported that my specimens corresponded with Peck's *Clitocybe sudorifica*. "The dried specimens received with your letter of the 30th of October, 1936, agree in general appearance and in spore character with herbarium material of *Clitocybe sudorifica*." But as is well-known partly dried fungi are hard to identify.

From the books of Gibson, Atkinson, Rieger, Cooke, Peck, and others I learned of *Clitocybe dealbata* var. *sudorifica* and fortunately having a fairly full set of Peck's reports, read of its action from specimens gathered in 1911 at Saratoga Springs some sixty miles south of my camp on Lake George.

On my return to the city I had better opportunities to learn of this species and the genus in general and have felt that a summary of what is known of this plant might prove of interest and value especially as rarely have I read of its occurrence in the same rings as *Marasmius oreades*. (Kaufman in his *Agarics* of

Michugan² mentions this) Naturally many fungi grow in rings, especially on flat untrammelled spaces, such as lawns, golf courses, etc., but the intermingling of these two species was very close and the identification perplexing, especially in partly dried specimens I had gathered some *Clitocybe* a few years previously on this same golf course, in the rough however, and had not seen it in the short clipped fields proper I had not determined it, but had noted its close resemblance in size, shape, color to *M. oreades*.

I append Peck's¹ description of *Clitocybe sudorifica* (Peck) in his New York Species of *Clitocybe* in which sixty-four species are described and in which Plate VII Figs 1-6 illustrations are offered.

Pileus fleshy but thin, broadly convex or nearly plane, often becoming slightly depressed in the center or umbilicate, irregular and splitting or lobed on the thin spreading margin, glabrous, watery white when moist, whitish or grayish white when dry, flesh watery when moist, white when dry, taste mild, odor none. Lamellae thin close, adnate or slightly decurrent, whitish, stem short, equal or sometimes narrowed at the base, glabrous or merely pruinose, stuffed with a white soft or spongy center or hollow when old, often curved, or somewhat flexuous, white or whitish, spores subglobose, 4-5 and 3-4 μ .

Pileus 2-4 cm broad 1-3 cm long 2-4 mm thick. Gregarious. Lawns and grassy places, Albany, Ontario, and Saratoga counties. September to November. Rarely the pileus has an obscure zone near the margin.

This species was at first confused with *Clitocybe dealbata* (Sow.), but after its sudorific properties were discovered it was designated *Clitocybe dealbata sudorifica*. Still further investigation led Ford and Sherrick to consider it worthy of specific distinction. Dr W W Ford found it sufficiently toxic to cause the death of frogs, rabbits, and guinea pigs, although it may be eaten by man in moderate quantities with no more serious results than a profuse perspiration, sometimes continuing five or six hours. It should be considered medicinal and unwholesome and avoided as food.

Ford and Sherrick's report on the toxic properties of the (Howland) type species sent them by Prof C H Peck of Albany (1911) is worth placing here.

Utilizing the Hamsen method of extrac-

tion they obtained from the final product which in small quantities dissolved in water gave characteristic muscarine action in frog's heart neutralized by atropine, thus confirming an earlier report made on testing a watery extract of a few specimens of the original Howland specimens. Here rabbits showed, in three to five minutes, profuse salivation, diarrhea, with later recovery. A guinea pig died in fifteen minutes, and another had paralysis of respiration.

W A Murrill² in 1915 contributed a review of the *Clitocybes* of North America where over a hundred species are described. With reference to *C. sudorifica* Murrill states he has examined the types (*C. dealbata* and *C. sudorifica*) and can see no morphological difference between the two plants. They both grow gregariously in exposed grassy places and the best observer could not tell them apart. Also with reference to Peck's species of *C. morbifera* allied in poisonous qualities with *C. sudorifica*, but more poisonous Murrill was unable to see any morphological differences from *C. dealbata*.

Dr L C C Krieger, whose recent splendid little Manual of the Fungi gave me the first clue as to the "sudorific" talents of this *Clitocybe*, wrote me the name of Mr Worthington Smith (Gardner's Chronicle of 1886) as offering the earliest report on the sweating powers of this fungus.

In this report (N Y Public Library) accompanied by an excellent sketch of *Agaricus (Clitocybe) dealbatus*, W G Smith states that he ate about a dozen specimens at breakfast. It was a cold morning and he had a fire in his dining room. A few moments after eating he felt very hot his hands began to perspire, then his face, and soon he was soaking wet from a copious perspiration. He changed his clothes. Was then cold, wrapped himself in a blanket and sat before the fire. After three-quarters of an hour the heat and perspiration came on with double force, the perspiration running in streams from his body. At midday the inconvenience had passed and he was left thirsty, drowsy, and weak. No further symptoms were noted. In a letter sent by the author to Dr Bull, the latter reports colliquative diarrhea from eating *Clitocybe nebularis*. Mr Smith notes that a second person who also ate of the *Clitocybe dealbata* was not so incon-

veniened. How many eaten by this second person is not reported. He christens the mushroom "The sweater."

The reports of the sudorific properties of *C. dealbata sudorifica* (Peck) by Peck are among the earliest in American literature. In his first report, (1911) Peck tells of having eaten *C. dealbata* for some time. This particular eating of eight specimens of *C. dealbata* sent him by a Mr. Howland from Saratoga Springs gave different results. They were fried in butter and eaten at supper. The taste was agreeable. In about half an hour he began to perspire, first appearing on the forehead, then spreading over the entire body. It continued for about five hours. No other disturbance was noted, maybe a slight quickening of the pulse, a mild rhinorrhea, some salivation, and an occasional hiccough. He went to sleep later and woke up in the morning as usual.

The following year Peck reports on poisoning from a closely related form which he christened *Clitocybe morbifera* from Washington, D. C., and from Michigan. It would seem to be more poisonous than *C. sudorifica*, having muscarine like properties.

In 1923 J. W. Roberts reports on being poisoned by *C. dealbata* gathered in Washington, D. C. He tried nibbling a few bits, also one entire specimen, with no unpleasant symptoms. He and his wife then ate eight or nine specimens creamed at dinner. He noted that he perspired a bit more than usual and he noted that there was some modification of the lights in an adjoining apartment. He gathered more and a day or so later ate twice as many. Shortly thereafter (15 minutes) he noted he could hardly distinguish objects and in forty-five minutes the hours on his watch were unreadable. He then noted half an hour after eating he became very warm and began to perspire freely. The perspiration continued. His wife also began to complain of inability to see and there was marked pupillary contraction. There was also diarrhea, and twitching of the legs. Perspiration of the entire body, wetting the underwear, salivation, rapid pulse ninety—seventy being the usual rate. Atropine was given and he went to bed with a hot-water bottle. He felt a bit exhilarated. The next morning he was well save there was some scantiness in

urination and some increase of the saliva and his taste was involved.

In a very interesting thesis by Martin Sans, I find several other cases. Thus (p. 126-127) a Dr. Duby of Lyon in 1923 reports two instances of discomfort from what was considered *C. detrusa* but was *C. dealbata*, (1) A child eating some had colic and a parrot died, and (2) his dog took about two teaspoonsful of sauce from the plate of mushrooms that he himself had eaten. They were *Boletus aurantiacus* and *Clitocybe dealbata*, about fifteen of the latter. Almost immediately the dog began to drool, later became depressed, thirsty, vomited, and later died. Dr. Duby was unaffected.

Another case of animal poisoning is reported by A. Pouchet of Lyon (Martin Sans, p. 127). M. B., a teacher and evidently a botanist, had been sent some mushrooms to determine. While studying them he noted one of his cats make several leaps and then fall down dead, next morning the other cat was found dead. He then investigated carefully and found that his specimens in the original basket had been freely eaten by the cats. They were *Clitocybe dealbata*.

M. C. (p. 128) an amateur mycologist and his wife ate an omelet with *Marasmius oreades* and *Clitocybe dealbata* for supper. An hour after going to bed Mme. C. began to sweat, salivate, and vomit. She vomited voluntarily and took a bowl of milk as an antidote. The perspiration continued for several hours with diminishing intensity. M. C. was much agitated, and sweat considerably while caring for his wife, but had no further trouble.

Mme. R. (p. 128) ate a mushroom omelet. Three hours later she had to go to bed with colicky pains, sweating, fainting, and general weakness, which persisted a few days. The mushroom was *Clitocybe dealbata*.

M. G. (p. 128) had eaten *C. dealbata* on a number of occasions without any inconvenience, as well as friends of the region, especially dried specimens. One day in July 1923 the family collected a quantity and they were eaten fried in butter without previous boiling. There were seven of different ages in the party. Five to six hours after, the first symptoms of poisoning appeared. They were those of vertigo and excitement, visual disturbances (diplopia) and weakness in the legs (legs of cotton), nausea and vomiting, cold sweat, coldness of the extremities, and diarrhea. Cold sweating was felt by all, sometimes after the feeling of weakness but mostly before. One woman who rarely perspired even in hot weather had an abundant perspiration. A man of

sixty and a nursing infant almost died Twenty-four hours later all were well

M. B. (p 130) railroad employee, and his wife walking along met a man collecting small mushrooms He assured them they were good to eat. They collected some, and later cooked them with fat and garnished them on an omelet, and a small portion given to their cat. They had just eaten some of the omelet when the cat suddenly vomited violently, with salivation, had a running nose, and hiccough-like respiration At first they thought some neighbor had poisoned the cat, but M B in his turn began to be indisposed, some ten minutes after eating some of the omelet. His eyesight became involved, felt suffocated sweat abundantly, first on the forehead and then over the entire body Vomiting was induced by salt water

Then Mme B (p 131) who had only eaten slightly of the omelet was taken sick in the same manner but in much milder form

When seen by Dr Oulie an hour after he was taken sick M B's face was cadaverous, pupils markedly contracted, vision abolished, intense dyspnea, prodigious sweating, dry tongue, pulse imperceptible, cold and parietic extremities Anuria, no gastric disturbance, some diarrhea without colic Acetate of ammonium was given with quick response and slow recovery After eight hours patient perceived light, two hours later perspiration ceased, and next day save for some palpitations he was as usual

The cat also recovered although purged, salivated, sweated, and had hiccoughs

Dr Martin-Sans recites some of his own experiences with the mushroom eaten by M B the railroad man (p 130) with a cat who avidly started on the fried mushrooms but soon stopped. Chopped with meat more was eaten Indisposition soon followed, with cough, urination, vomiting, and defecation. Ptialism pronounced, contracted pupils, jerky movements, and finally slow respiration and death in about an hour Autopsy showed marked congestion of most of the organs of the body A second and third cat died with similar symptoms and similar findings

In his discussion of the poisoning Martin-Sans (p 140 et seq) notes that *Clitocybe dealbata* has been highly recommended by many mycologists He also writes of its growing in close association with *Marasmius oreades* In the case of M B he speaks of a mixing with *Rhodopaxillus sordidus* Martin-Sans is inclined to follow Murrill in saying that morphologically *C sudorifica* does not differ from *C dealbata* In most of the cases the sudorific action

is emphasized Martin-Sans found evidence in some of his animal experiments of a hemolysine, contrary to the findings of Ford and Sherrick (p 141) Here is something to study further In man the poisoning does not seem dangerous but the animal experiences should make one very cautious about this mushroom

Clitocybe rivulosa (Pers) Quel, a widespread European species, Peck found in the Adirondacks (Murrill p 270) and Martin-Sans devotes a number of pages to its properties (143 et seq) In the first place it closely resembles *C dealbata* and Martin-Sans raises the question of its specific rank *C Nuptunea* (Batsch) Fr *C phyllophila* (Fr), *C pithyophila*, (Secr), *C connata* (Schum), *C opaca*, with *C cerussata* (Fr) are considered by Constantin & Dufour⁴ as but variants of *C dealbata*, but most mycologists are of a different opinion Thus nearly all of the small white *Clitocybes* of the open fields come under suspicion *C rivularis* also has been collected intermingled with *Marasmius oreades*

Most European sources cite *C rivularis* as poisonous There are some who have found it not so Martin-Sans, Roch, and others, have reported cases of poisoning of *C rivularis* Wiki and Roch add *C candicans* to the list of the suspicious *Clitocybes*, *noycebe infida* (Peck) (See Murrill) Dr Deming of Westchester Sweating, no nausea nor vomiting Full head as in nitroglycerine beating heart This is a yellow spored variety of the *C illudens* group

In the therapy of poisoning prompt evacuation of the stomach and intestines is called for Hypodermic injection of atropine or oral use of the tincture should follow Alcohol is contraindicated Specific sera are being evolved but are rarely available Neutral salt solutions in the veins has given prompt results with one or more poisonous species of mushrooms, also a 4 per cent solution of dextrose used intravenously to overcome hypoglycemic shock which occurs in some cases of poisoning

64 W 56 St

References

- 1 Peck N Y State Museum 65 II 157 67, 1911
- 2 Kauffmann C H *Agaricinae of Michigan* pp 847-8 1918
- 3 Murrill W A *Mycologia* 7 256 1915
- 4 Constantin and Dufour *Nouvelle Flore de Champignons* Paris 1895
- 5 Dearness *Mycologia* 3 75 1911

NONTRAUMATIC CYSTOSCOPY

I BAYARD CLARK, M D, *New York City*

Not long ago I was invited to look after the urological work of a hospital in one of the small but exclusive communities that fringe the City of New York and was soon made aware of the apprehension and fear that attended all cystoscopic procedures in that locality. The phobia included the doctors and nurses, and extended out into the community. One caught whispered comments of the excruciating symptoms that followed these "fearful" ordeals.

Unfortunately the first few patients I found it necessary to cystoscope there audibly and protestingly reflected the general feeling about cystoscopic examinations. They had "gone through" the experience before.

It appeared to be the customary thing in this hospital to have these patients prepared for general anesthesia "if necessary" although local anesthesia was more commonly employed. And the patient was sent to bed for varying periods, to "recover."

The most interesting example of this widespread dread was exhibited by an ex-operating room nurse who was to be cystoscoped. I entered the room to find her blanched and trembling on the table, about which stood some eight or ten sympathetic nurses looking very grave. Taking in the situation I began talking airily of some current topic of general interest. My ruse was about as welcome as a jig at a funeral. But I kept up the lightsome talk until the cystoscope had been safely lodged in the bladder. As its introduction, sans any anesthetic, had occasioned no discomfort to the patient it immediately occurred to me that the patient herself and her condoling companions might not believe the evil deed had been done. So I invited the intern present to sit down at the eyepiece and describe what he saw in the bladder. Thus the tension in the room subsided and the job was quietly completed.

Shortly after this encouraging experience a little experiment in nontraumatic cystoscopy was instituted to reestablish, if might be, the morale of the place in regard to these essential examinations.

A series of fifty-six consecutive cases was carried through without the use of any anesthetic, local or otherwise, except in the case of one little girl aged six who it was feared might not cooperate. None of these patients was sent to bed to "recover" except the little girl. There were thirty-one males in the series and twenty-five females. The age range was from six to seventy-six years. Five cases had colicky pain for an hour or two which was ascribed to the pyelographic media. In two cases—devitalized subjects—there was discomfort lasting the day. Beyond this there were no reactions or complaints of any kind in this series. One cannot always be so fortunate, for as every urologist knows there are the difficult cases that do come along every now and then to try our souls and make cystoscopy seem like a rather formidable affair.

I have recounted this particular personal experience in the small community as I found it, not because it shines out as a rare example of cystoscopic work in like places, but because according to all my previous observations it is very much the kind of cystoscopy one commonly finds under similar circumstances.

There are perfectly good reasons why this should be so. This work is usually taken on as a side line by some conscientious practitioner with a leaning toward surgery who very rightly thinks someone should look after these obviously urological cases.

When the numbers of such cases are counted up in any given small community there are not enough of them for anyone to gain proficiency, or sustain proficiency gained in any postgraduate course in cystoscopy that might have been taken. It is not only impossible to keep one's hand in, it is impossible to keep one's head in and cultivate any useful degree of urological judgment in the cases easily recognized as such.

But experience alone does not seem to be the only factor in producing a competent cystoscopist. There are a good many from whom nature seems to with-

hold that elusive quality of touch which robs urethral instrumentation of its sorry consequences. "Some men simply haven't the 'flair,'" as I once heard a noted teacher express it, "so I try to persuade them to take up some other branch of medicine."

Eleven years ago I published an article ("Gentleness in Genito-Urinary Surgery" *JAMA*, April 17, 1926) and from which I received many appreciative letters from various sections of the country.

This article of a decade ago grew out of ten years' experience at Bellevue Hospital, two years in war service, several subsequent years in other New York Hospitals, and a busy urological practice, during which time I had learned what a large proportion of his work comes to the specialist in urology from instrumentation—catheters, sounds, and cystoscopes—in unaccustomed hands. The art of the catheter still seems to be a closed book to the medical profession at large, and Frank Kidd, the noted London urologist, declared years ago that every sound in the possession of a general practitioner should be thrown into the smelting furnace. The record of the amateur cystoscopist is a story of its own that has been permanently impressed on the delicate structure of countless urogenital membranes.

The present article is advantaged by ten more years of experience which tallies in all essential respects with its predecessor and it does seem unfortunate that all this avoidable damage, suffering, and infection, and the many escapable operations, with their consequent disability of vital function, should not be brought into the focus of more intelligent consideration by our profession.

How is our problem to be solved? For over half a century the delicate work about the human eye has been universally respected by the medical profession, and left to those who by natural bent and conscientious training have fitted themselves for their special task. The physician thinks nothing of sending his patient who requires the skill of an ophthalmologist any distance in order to get proper care, yet the genitourinary organs have been the sport of pretty nearly all doctors, especially the young ones just

beginning practice. Why? Because modesty or shame, call it what you like, compels the sufferers to endure the most outrageous treatment for their genitourinary ills *in silence*. And of this safeguard—and I loathe the saying of it—many medical men take advantage. This has always been a serious consideration standing in the way of competent urology. But in the larger cities it seems to be getting less acute, probably because the people themselves are waking up to this black spot in medicine. In the smaller communities it still finds fertile soil upon which to flourish. The sexual infections especially—gonorrhea and syphilis—have always been an inviting target for the inexperienced beginner in the practice of medicine to pop at. This is undoubtedly one reason why these infections have so completely run away with us, and have now perforce called forth a national campaign to bring them under control.

This has nothing to do with cystoscopy which is the subject of this paper, but it is linked up with it in the absence of qualified urologists in the smaller communities who might function effectively in bringing order out of chaos in this field.

In this particular article I have tried to direct our chief attention to the cystoscope because that still remains the master key to the puzzles of urology, and is the starting point from which we most often must initiate appropriate therapeutic measures. Urography has come to be an exceedingly important adjunct to diagnosis but it will always be overshadowed by the cystoscope. It can never be a complete substitute for that instrument in revealing urological pathology.

I have tried to show that the patient in the smaller communities does not get the full benefit of qualified urology which is now a well-developed and mature branch of medicine. Indeed, the patient very frequently gets something far worse than the complaint for which he seeks relief.

Is there any remedy for this unhappy state of affairs? I believe there is a comparatively simple one.

The taking on of this part-time urological work in the small but typical community while pursuing my practice

in the city has enabled me to make a useful and impersonal comparative study of urology as it is conducted as a complete specialty in the city and as an incomplete specialty out of the cities. It has given me very definite data regarding the uneconomic and physically detrimental results of the work done in the smaller communities by men only partially equipped for this very necessary part of medical practice.

Now the real difficulty seems to lie here. The incidence of urological disease per capita is actually a very small one. The morbidity in this field of medicine is, I believe, only about two or three per cent of the total morbidity. In a single small community there isn't enough to give a full time urological specialist a living, therefore the work is done in a haphazard way by some doctor who is really giving his best thought and attention to some other kind of work. This does not go in urology, it is an exacting master of one's time and intelligence.

The "certification" of the urologist is a very decided step forward, and it is going to be a great help in solving the problem of bringing competent urological assistance to the smaller communities. The certified urologist will give the assurance of qualified service. But if there isn't enough work to keep him busy in a small community, how is he to be maintained there? He is to be induced there by rousing one small community and its hospital to act as a urological center for a certain number of surrounding communities, enough to bring in sufficient work to keep a first class urologist interested, and sufficient work to make urological technics a routine procedure.

I have been trying to work this plan out in the community I have alluded to, hoping that we might arrive at some useful basis for general application in all like small communities. There is nothing very startling about the idea. It must have occurred to many other urologists in their efforts to find some way of giving people, not in the larger centers, an even break in this branch of medicine.

This article isn't written to tell front rank urologists anything they do not already very well know. It is an appeal

to the rank and file of medical men to turn a little serious attention to the existing unfortunate situation. It is not necessary to dwell on the physicians obligation to society. I know of no profession more keenly alive to professional responsibilities. It may be characteristic of commercial business to get all it can out of society without counting the costs to human welfare, but this certainly is not so in our profession. We rest on ancient traditions of a very widely different nature, and if physicians at large will only come forward in their true colors they will be able without a great deal of difficulty to work out this plan whereby the people of their own communities can be provided with safe, serviceable, and "certified" urology.

This too will be of immense service to the present efforts of the United States Public Health Service which through the rare talent and ability of its Surgeon General is trying to organize a comprehensive system of orderly and effective clinical and outpatient treatment for the sexual infections in every community in the land. This public health work will be greatly advantaged if there is a spread of responsible urologists to assist in it.

Conclusions

1 Traumatism is unnecessary in cystoscopic examinations just as it should never occur in other urethral instrumentation.

2 Local anesthesia leads to traumatism because it blunts the sensibility of the patient, which is the surest guide to its avoidance.

3 Anesthesia is rarely necessary.

4 Reactions should rarely occur, and infection or injury to the urethra or bladder never.

5 Cystoscopy if properly performed should be accompanied with little or no discomfort in the great majority of cases.

6 The career of the cystoscope has been toward a progressively reckless use of that instrument.

7 It would be preferable to have competent urological work instituted by the medical profession rather than have it demanded by the public.

PROTAMINE ZINC INSULIN

Clinical Experiences

JAMES FINLAY HART, M D, *Bronx*

Opportunity to study the effects of protamine zinc insulin in diabetes was made possible by the generosity of the manufacturers. Twenty-three patients on the metabolic ward of the New York City hospital were picked as suitable cases and for periods varying up to four months received the protamine zinc in place of their usual insulin. There were also three ambulatory patients attending the Midtown hospital clinic who took the protamine zinc for over eight months. Our experiences with these twenty-seven cases are the basis of this paper.

The twenty-three hospital patients were under very close supervision with weighed trays and four fractional urines a day. The ambulatory patients were severe cases that were picked as being highly cooperative. Conditions then, on the whole, were somewhat above the average clinical control which made it seem a fair test for any noticeable improvement due to a change in therapy.

In selecting and preparing patients for this test certain groupings became apparent. It was easy to recognize mild, intermediate, and severe cases. We considered those taking up to twenty units of insulin a day in the mild group, those taking from twenty to forty in the intermediate, and those taking over forty in the severe group. As a rule the mild group got along well on one injection a day, the intermediate and the severe on two.

A subdivision in the intermediate and severe groups could be made. The majority of cases in either group were easy to balance and easy to keep there. There were several cases however that were interesting because they exhibited such a perfect balancing ability. One case was especially so. The following is the history

CASE 1 Mrs E C sixty-five years old, had no knowledge of diabetes on entering the hospital March 29, 1928. She was put on a "low carbohydrate" diet and twenty units of insulin before breakfast. From her

entrance to the present date she has been a notorious cheater. She has for three years eaten what she wanted when she wanted it, seemed to thrive thereby, and good naturedly refused to change her ways. Her insulin dose crept up to 50-0-15 by 1934 and to 69-0-42 during the early half of 1936. On Sept 12, 1936, the date of the first blood sugar curve she had been controlled for a number of weeks and was then taking insulin 72-0-45 with an "official" diet of C 130, P 74, F 76. Under the above regimen she was sugar free and without shocks. Incidentally she never had one shock during her eight years stay in the hospital. In addition, during the two months she was under protamine zinc treatment marked changes were made in the dosage without either a spill or a shock.

In the same group were several elderly diabetics that were, for a long time, inmates of the less active chronic medical wards. Because their diet was satisfactory and because they neither shocked nor spilled they had been kept on the same insulin dose for years. It was found that their dosage of insulin could be cut down to one-half or one-third without any clinical change. The inference is that their tolerance had improved since their last adjustment. It could be that the higher doses of insulin are optimum for these patients, but it definitely showed that they had a very marked range between the minimum and the maximum dose.

In contradistinction to the former group were the hard to balance cases. In the city hospital there are always two or three such patients and roughly speaking they constitute about five per cent of the diabetic population of the institution. While some of these may cheat it would be impossible for them to be the cheat that Case 1 is known to be. The following case is an excellent example.

CASE 2 W M, seventy years old was admitted July 9, 1935 with a history of diabetes for twelve years. He is a pleasant cooperative patient somewhat senile mentally and unable to get out of a bed or a chair.

in the city has enabled me to make a useful and impersonal comparative study of urology as it is conducted as a complete specialty in the city and as an incomplete specialty out of the cities. It has given me very definite data regarding the uneconomic and physically detrimental results of the work done in the smaller communities by men only partially equipped for this very necessary part of medical practice.

Now the real difficulty seems to lie here. The incidence of urological disease per capita is actually a very small one. The morbidity in this field of medicine is, I believe, only about two or three per cent of the total morbidity. In a single small community there isn't enough to give a full time urological specialist a living, therefore the work is done in a haphazard way by some doctor who is really giving his best thought and attention to some other kind of work. This does not go in urology, it is an exacting master of one's time and intelligence.

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- 3 Anesthesia is rarely necessary.
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- 5 Cystoscopy if properly performed should be accompanied with little or no discomfort in the great majority of cases.
- 6 The career of the cystoscope has been toward a progressively reckless use of that instrument.
- 7 It would be preferable to have competent urological work instituted by the medical profession rather than have it demanded by the public.

the second curve was done. We found a lowered fasting blood sugar—possibly too low. The breakfast is not so quickly dispensed with but the supper peak is well within normal. It can be seen in these cases that the same number of units are more effective, have a more prolonged action, and preserve a better blood sugar balance than that of the regular insulin.

Intermediate Group

Let us consider now the effect on the intermediate group. Where there was a substitution for all or part of the regular insulin in one or both injections a noticeable drop in the before breakfast blood sugar was seen. Other than that there was little improvement in the curves. In none of our cases was there any reduction in the number of units or injections. The following cases are illustrative.

CASE 4 C D, age fifty-seven, was admitted May 20, 1935 with no knowledge of diabetes. He was put on a diet of C 180, P 80, F 118, making a total of 2115 calories. This was controlled by insulin 25-0-20. For several months he required seventy-five units of insulin a day for a balance but for two months before the first curve with a change in the diet to C 150, P 78, F 83, he kept sugar free on insulin 20-0-5.

The first curve was taken on September 9, 1936. He was then put on a combination of regular and protamine zinc insulin, ten and fifteen units respectively before breakfast. After fourteen days, a curve was made and it showed a favorable change, the fasting blood sugar was down thirty points. This showed that the same number of units of protamine zinc were more potent and caused a more sustained action than that of the old alone. The daily blood sugar curve gave less spiking with the combined dose. On September 24 he was put on twenty-five units of protamine zinc alone before breakfast. After five days, a second curve was taken with results not so striking. The supper was not as well-controlled. Then on September 30 he was changed to protamine zinc twenty-five before supper. After fourteen days the fourth curve was taken and the breakfast caused a high peak. In this case, a combination dose before breakfast was the most efficient form of administration.

CASE 5 A T male, age fifty-eight was admitted to the hospital October 24 1936.

He knew for ten years that he had diabetes but said that he never needed insulin. He was put on a diet of C 180, P 80, F 60, and was shortly balanced with insulin 20-0-15. The first curve was taken on January 9, 1937. He was then given fifteen units of regular insulin before breakfast and fifteen of protamine zinc before supper. The breakfast and the supper was not as well taken care of but the before breakfast blood sugar was down thirty points.

CASE 6 J W, male, age fifty-eight, was admitted to the hospital February 7, 1936 with a history of diabetes for ten years. On entrance he was put on a diet of C 150, P 80, F 95. On September 9 the first curve was taken. He had been on 30-0-5 units of regular insulin for over a month without a spill. The next day he got one dose of thirty-five units of protamine zinc before breakfast. For thirteen days he continued this, showing a slight spill in the second or third urine. Then the second curve was made and very little change was seen. Following that he was twenty-one days taking thirty-five units of protamine zinc before supper. There was very little change here except that there was a lower before breakfast blood sugar.

CASE 7 M F, age forty-two, was admitted November 9, 1934. She had been aware of her condition a year and a half before entrance. She was put on a diet of C 200, P 80, F 110 with regular insulin 35-0-20. On September 16 1936 she had been well-balanced on C 152, P 78, F 75 with insulin 29-0-7 for almost two months. The first curve was done on this day and she was then given protamine zinc 29-0-7. There followed slight traces of sugar in the first and second specimens until October 13 when the second curve was made. There was no improvement from the protamine zinc, rather there was a poorer response after breakfast and supper. Following that she was given thirty-six units of protamine zinc before breakfast. There followed a continuous spill throughout the day which necessitated raising the protamine zinc to 45-0-0, which brought some improvement. On November 10 the third curve was taken. On that day there was a spill of 0-1-0-0.

Severe Group

The severe cases in the easy to balance group showed a tendency toward a better before breakfast blood sugar when the same number of units of protamine zinc were substituted for the evening dose of regular insulin or where part of the breakfast insulin was given in the form of protamine zinc. The following case is illustrative.

without help. Partially because he was such a difficult problem with persistent heavy spills and frequent severe shocks and partially because he was such an appreciative person he became the patient of interest of each succeeding intern.

In practically his whole stay in the hospital he received four injections a day. For fourteen months with regular insulin there did not seem to be any arrangement of dosage that would bring about a balance. Because he could not leave his chair it was impossible for him to cheat. Also because his daily food intake was constant and his muscular exercises without change, one could not blame either of these factors. One or two units of insulin would change a four plus spill to a shock. Although he might have five or six shocks a week he would have them at different times of the day. Several times after he had been shocking heavily we cut the total daily insulin down and let him spill freely. In a few days the spill would usually clear up without further aid. It would remain clear for a few days and then go back to a heavy spill for a period. It seemed as if some cycle was in action and as such it appeared as a competent explanation for the difficulties encountered in arriving at a balancing dose of insulin.

In groups of diabetics, one finds then, mild, intermediate, and severe types. Under prolonged hospitalization a noticeable number show a gradual continuous improvement in tolerance sufficient enough at times to move a severe case into the mild class. Most cases are easy to balance. There are a few, however, who exhibit extraordinary balancing ability and likewise a few who are impossible to stabilize. Again in the easy to balance group there are some that have a wide range between the maximum and minimum insulin doses.

Objectives in the Study

We took as objectives in this study the conclusions commonly held by authors in articles on protamine zinc published during 1936. The following points were stressed.

1 The action of the insulin was prolonged

2 A better blood sugar balance was created

3 Fewer units of insulin were needed

4 Fewer injections were needed.

5 A 100 gram error in the carbohydrates of the diet would be taken care of

Because we found the effect of protamine zinc varying with the intensity of the diabetes we will consider the mild, intermediate, and severe groups separately.

Mild Group

Taking the mild group first we find that protamine zinc was an improvement over the regular insulin. It could be easily shown that the protamine action lasted longer than that of the old form. A better fasting blood sugar was frequent and a better blood sugar curve was the rule. There seemed to be an accumulative action about the fifth day, and a slight drop in the number of units was frequently necessary. After several months of protamine zinc, however, the units were about the same as with the regular. There was no improvement in the number of injections as these cases only required one injection a day. We quote the following case.

CASE 3 G. K. was admitted October 28, 1935 without previous knowledge of diabetes. His toe was amputated on December 16 and the leg removed on January 8, 1936. After entrance he was balanced on insulin 20-10-15. He was kept on this insulin dose until September 9 when it was changed to 15-0-0. No spill occurred from this change so a curve was done three days later. On the next day protamine zinc was substituted and on the 23rd a second curve was taken. There was no spill or shock from the protamine zinc and throughout the test his diet was 2049 calories a day with C 204, P 90, and F 97.

This is a mild case that had a range for insulin between 20-10-15 and 15-0-0. Adjustment was made before the first curve was done. On analysis the curve shows a normal fasting blood sugar. The fifteen units of old insulin takes good care of the breakfast. The lunch is likewise controlled, but supper is too much and the blood sugar rises to 210. After ten days of protamine zinc substitution

Our other group in the severe class, the hard to balance cases, showed no improvement from any form of substitution with protamine zinc. All possible combinations were tried on Case 2 without avail. This man is as much a problem today as he ever was.

The ambulatory group which were also severe cases acted as follows

CASE 9 A P, age seventeen, had diabetes for eight years, complicated with rheumatic fever and cardiac sequelae. For two years after his last rheumatic attack he averaged 140 to 150 units of insulin a day. He was on a high carbohydrate, high calory diet, and spilled and shocked frequently. For about a year before trying protamine zinc he lived an active boy's life during which time he needed only from seventy to eighty units a day. He took fifty units before breakfast and twenty-five to thirty before supper.

In July he substituted protamine zinc for the evening meal. There was no apparent change. For seven months this routine was continued. There would be periods of spill before and after breakfast similar to that with the old insulin. Because of a lack of supply he had to go back on the regular insulin for about ten days. It seemed to him that the morning spill was more frequent with the old insulin.

CASE 10 The second ambulatory case was W K., age thirty-eight who was difficult to balance in part because he was a porter doing hard work with shifting working hours. He would have spills and shocks frequently but did best on thirty-two units before breakfast and twenty-eight before supper. He was on a high carbohydrate high calory diet and in all seemed an ideal case for protamine zinc.

We noticed at first that he could not control breakfast with protamine as it did not work fast enough. We compromised then with the old insulin for breakfast and protamine zinc for the evening meal. We lowered the units of protamine zinc for fear of the cumulative effect but after a month or so he had to return to twenty-eight units of protamine zinc before supper. For the last seven months he has been taking thirty-two units of regular insulin before breakfast and twenty-eight of protamine zinc at night. During this time he had the longest shock ever seen by us. It lasted over six hours during which time he bruised himself severely. He was very pleased at the end of eight months to return to the old insulin.

CASE 11 The third ambulatory case was brought to the hospital in a coma. This was

precipitated by an upper respiratory infection. It took over two months of close observation to get the patient in good enough balance to try the protamine zinc. The evening dose of the regular insulin was changed to the same number of units of protamine zinc. He left the hospital directly after the change but appeared regularly at the clinic. Outside he worked almost twelve hours a day as a salesman and during the three months gained about twelve pounds. Throughout this period he gave evidence of a subacute nasal infection. On leaving the hospital he was getting thirty-five units of old insulin in the morning and twenty units of protamine zinc at night. His business took him to Florida and at that time he was taking thirty-five units of regular insulin before breakfast and fifty-five of protamine zinc before supper. He did not shock but spilled considerably. This lowering of the tolerance was undoubtedly due to the nasal infection.

Summary

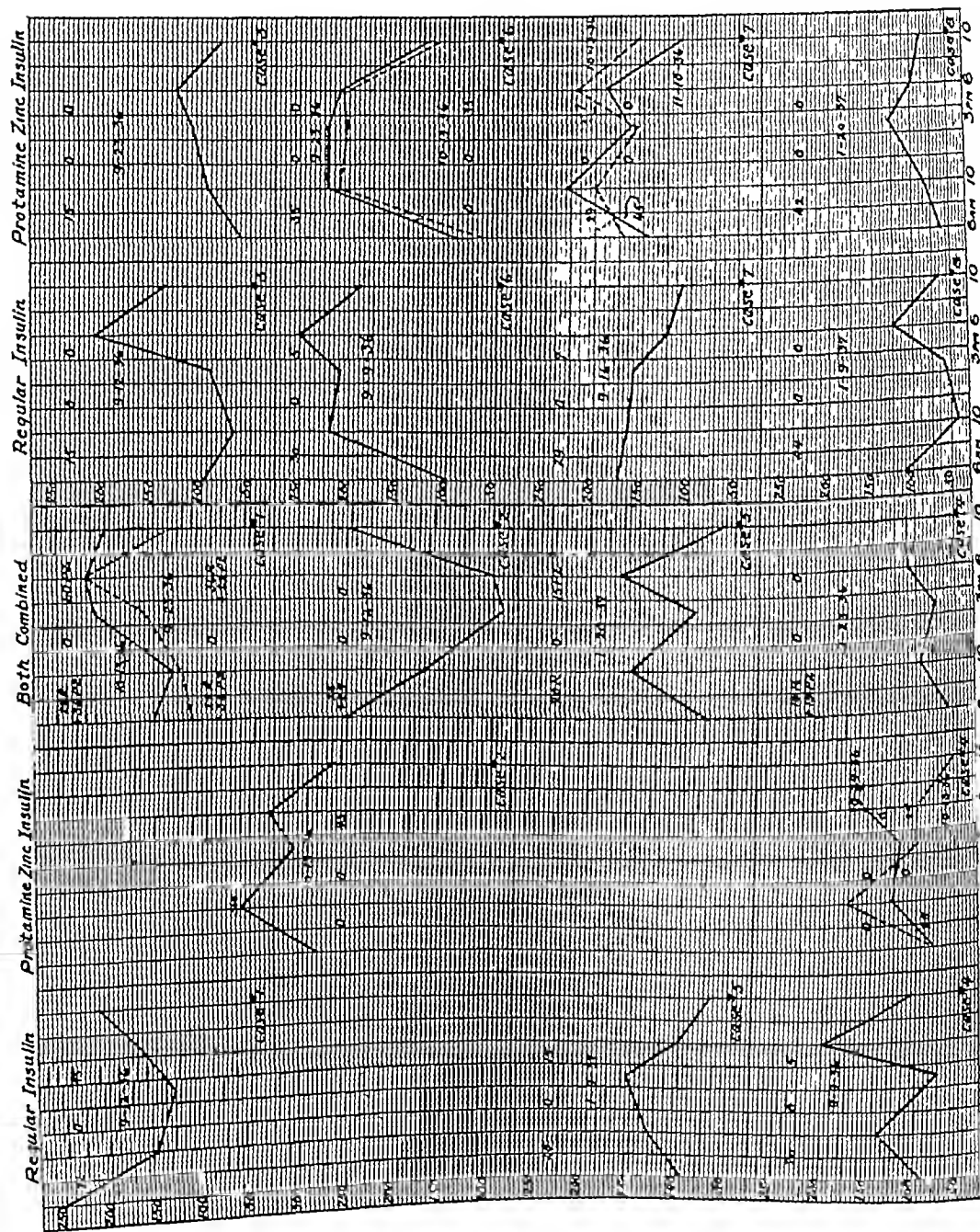
It is essential that a careful selection and preparation of patients be made before any comparative study of regular and protamine zinc insulin is begun. First the degree of severity must be considered. Mild, intermediate, and severe cases are easily recognized and treatment such as the number of units of insulin together with the number and time of injections vary with the intensity of the case. Again, as happens in a large percentage of our cases, long continuous hospitalization under diabetic regimen brings about an improvement in the tolerance so that severe diabetics may move into the intermediate or even into the mild class. On the other hand some cases advance from the less to the more severe group. Acute infection increases the severity while subacute infection prolongs this state over long periods. It is a common occurrence therefore for slow continuous improvement in the tolerance under hospital care with the regular insulin.

Furthermore certain cases are noticeably easy to balance while others, mostly in the severe groups, are apparently beyond our present day skill. Certain individuals exhibit a marked range between the maximum and minimum insulin dose while others are susceptible to one unit of insulin. All those cases with a wide range should be recognized and an adjustment should be made bringing them

CASE 8 P K, age eighty-seven, was admitted November 12, 1936, with a history of diabetes for twenty-five years. Shortly after admission he became regulated on a diet of C 125, P 72 F 110 and forty-four units of regular insulin before breakfast. There was an occasional trace of sugar in the urine. On January 9, 1937 the first curve

was done. The next day a substitution of forty-two units of protamine zinc was made and there was a slight improvement in the spill. Ten days later a second curve was made and this showed a lowering of the before breakfast blood sugar and a poorer response to the breakfast. Otherwise the curve was about the same as the last.

TABLE I



PRACTICAL ASPECTS OF GALL-BLADDER DISEASE

JOHN RUSSELL TWISS, M D, *New York City*

My remarks herein will be limited to a few facts of practical clinical importance in the diagnosis and treatment of some of the more common disorders of the gall-bladder. The conclusions are the result of an investigation begun with the collaboration of Dr Chas Gordon Heyd and continued during the past seven years in the combined Medical and Surgical Gall Bladder Clinic of the New York Post Graduate Hospital, under the direction of Dr R. Franklin Carter. During this period about 2000 patients suspected of gall-bladder disease have been studied, over 200 of which have come to operation.

Prevalence and Importance Disease of the gall-bladder is considered the most common cause of digestive symptoms. While all patients with this condition should have a careful diagnostic work-up and medical supervision, a certain number require surgical intervention. The proper selection of these patients for operation constitutes one of the major problems of medicine. While we do not approve of prolonged ineffective medical treatment in cases of advanced infection and pathology it is at the same time unfortunate for both patient and doctor to find the patient unrelieved of his symptoms following a major operation.

Diagnostic work-up The best insurance against regrets is a complete initial diagnostic work-up. Routine histories of these patients are usually indefinite rather than characteristic, the commonest symptoms being pain other than colic, discomfort after meals, distention, belching, nausea, vomiting, and an intolerance to fats, in our experience jaundice, colic, chills and fever are relatively less frequent. The physical examination in the absence of active infection or obstruction is commonly of little assistance.

Differential Diagnosis In view of the diverse symptomatology of disease of the gall-bladder, other possibilities in differential diagnosis must always be borne in mind. Among those conditions which we

have found most frequently leading to difficulties in diagnosis are appendicitis, duodenitis, peptic ulcer, pylorospasm, mucous colitis, pyelitis, and stone or stricture of the urinary tract. Allergic conditions, as suggested by the presence of hay fever or asthma, may give similar symptoms.

Cholecystogram The cholecystogram, one of our most useful diagnostic procedures, should be done in every case of suspected gall-bladder disease. While normal visualization and emptying of the gall-bladder occurs in most cases in which there is no pathology, in seven per cent of our patients in whom this finding was reported, stones were found at operation. Lack of visualization of the gall-bladder, as interpreted by Dr William H Meyer, Director of the Department of Roentgenology, is considered of significance only if the double dye method is used and the dye is seen normally distributed in the colon.

Among the conditions besides infection frequently preventing visualization of the gall-bladder are cystic duct obstruction (particularly by stones), liver pathology, and common duct obstruction. The latter conditions are usually associated with jaundice, with which there is in our experience rarely visualization of the gall-bladder. It is furthermore worthy of note that in certain patients, particularly those having a nervous temperament, there may be no visualization of the gall-bladder on repeated examinations, with no apparent pathology of the gall-bladder found at operation.

Biliary Tract Drainage Biliary tract drainage is at present generally conceded to be a valuable supplementary method of diagnosis, provided that the drainage and the examination of specimens are in the hands of experienced workers. Drainage is done on every patient coming to our clinic, its diagnostic accuracy as checked at operation compares most favorably with that of the cholecystogram. The use of gall-bladder drainage is strongly

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down to the minimum dose before the protamine zinc is used

It is likewise important to recognize that factors other than diet and insulin influence the blood sugar. Mains and McMullen¹ showed the importance of sympathetic nervous disturbances, the function and dysfunction of the endocrine glands, alimentary absorption, and infection as factors in its regulation. They noted a daily curve on any one individual might remain constant for several days and be followed by a radically different curve, and they felt this was due to the addition of one or more of the intercurrent factors. Mollerstrom² also brought out this fact stating that there is a physiologic rhythm of the carbohydrate metabolism of the liver which is independent of the diet and of insulin. This rhythm, he showed, varied in different individuals and in the same individuals on different days.

Conclusions

It seemed to us from the evidence at hand that in all grades of diabetes, protamine zinc produced a decided lowering of the before breakfast blood sugar. We inferred that this was due to a more prolonged action of the protamine zinc.

The most apparent effect of protamine zinc on the blood sugar is during a fast. This is noticeable in the normal daily fast that exists from about three hours after supper to breakfast. When a rise occurs in the blood sugar of diabetics at this time it is produced by factors other than the diet, it is slow and gentle and varies with the intensity of the case. The protamine zinc gradually liberating the insulin equalizes the slowly rising blood sugar and brings about a better before breakfast blood sugar.

We conclude that protamine zinc acts as a factor in blood-sugar stabilization. We feel however that it is a limited factor capable of recognition only when the dysfunction of the sugar metabolism is mild. In those cases of diabetes that have only a slightly elevated blood sugar after a meal and only require small doses of insulin for a balance the effect of the protamine zinc will be evident. In the severer ones however, where the meals

produce a sharp and extreme reaction on the blood sugar, the protamine factor is too feeble.

Reduction in the number of injections was not possible in any of our cases. The mild cases with their one injection a day obviously could not be changed. When cases were severe enough to require two or more injections a day of the regular insulin they usually exhibited a sharp pronounced rise of blood sugar after breakfast. Protamine zinc alone was not rapid enough to control this. Effort was made to equalize both supper and breakfast blood sugar rises by one dose of protamine zinc before supper. This was not successful in any of our cases because of the rapid rise of the after breakfast blood sugar. Being convinced that the breakfast and supper rises of blood sugar could not be controlled in the severer cases of diabetes with one injection, we considered the advisability of using the two insulins in conjunction. We tried the original idea of Hagedorn by giving the regular insulin in the morning and the protamine zinc at night and the later method of giving the two at once before breakfast. Both of these methods met with some success. We felt that protamine zinc given before breakfast in doses amounting to about one-half of the total breakfast units or before supper in doses equivalent to the regular insulin affected the before breakfast rises in most cases.

We did not find it possible to permit a leniency of 100 grams of carbohydrate in the diet while using protamine zinc. In fact we felt that the same strictness must be used as is customary with the regular insulin.

From the aforementioned one might say that protamine zinc could be used to advantage in all mild diabetics, and in the more severe showing a high before breakfast blood sugar.

1105 JEROME AVE.

References

- 1 Mains W P and McMullen C J *JAMA*, 107 659, 1936
- 2 Mollerstrom *Arch Int Med*, 52 651, 1933

to have an acutely inflamed tender distended gangrenous gall-bladder, practically ready for perforation, with a normal temperature and blood count. An initial subacute attack, however, may subside and the gall-bladder return to an apparently normal condition. A careful check-up for stones is essential in these cases, after the subsidence of the acute symptoms.

Surgical Jaundice. Another serious problem frequently coming to our attention is that of prolonged jaundice. The usual maximum duration of the so-called catarrhal jaundice is six weeks, any jaundice extending over this time is entitled to an immediate surgical consultation. The importance of liver damage and impaired function from prolonged obstruction cannot be overemphasized.

Among the most common causes of prolonged jaundice are common duct stones, malignancy, and pancreatitis. Probably the most accurate test for complete common duct obstruction is the absence of bile upon duodenal drainage, when the position of the tube has been checked by the fluoroscope. The relationship of the common duct stone with "sand" of calcium bilirubinate and colon organisms in the duodenal bile has been mentioned. Blood may be found with malignancies. The diagnosis in many cases must rest upon continued observations, repeated drainages, and repeated icterus index determinations.

Medical Management

General. Every patient with disease of the gall-bladder should in our opinion have medical supervision, regardless of the necessity of surgical intervention. The principal reason for this statement is the number of patients referred to our clinic with severe indigestion following the removal of the gall-bladder, who have been told to "eat anything they want." Few of these patients have evidence of stone or stricture. Many are entirely relieved by a proper dietary and hygienic regime, together with such medication as may be indicated by the diagnostic work-up.

Dietary. For many reasons diet seems one of the most important of all therapeutic measures in cholecystitis. Many varieties of gall-bladder disturbances do

not lend themselves equally well to the old style single type of "low fat diet." In the presence of cholelithiasis, hypercholesteremia, or active infection, the low cholesterol low fat diet is undoubtedly best. However in those patients having an enlarged atonic distended gall-bladder, in the absence of the findings previously mentioned, best results are frequently obtained with a stimulating type of diet, relatively high in fats and cholesterol. For those patients with a gastric hyperacidity, duodenitis, gastric irritability, or pylorospasm, a modified Sippy type of diet, high in carbohydrates and with intermediate feedings, gives excellent and at times dramatic results.

The importance of diet in patients treated surgically must be emphasized. The patient "afraid to eat" frequently presents himself for operation in a state of both dehydration and emaciation, a most discouraging operative risk. The essential preoperative preparation includes the forcing of fluids and the strict observance of a diet high in carbohydrate value, preferably with the addition of sugar, to build up the glycogen reserve of the liver. On the other hand the cases of extreme obesity commonly found to be in need of surgery, may be greatly benefited by a preliminary reduction in weight. We furthermore feel that for the average postoperative patient the use of an appropriate diet is an indispensable part of the follow-up treatment.

Functional Disturbances. Just as the gastric acidity in cases of biliary tract disease has been in general overlooked, so has been neglected the group of functional disturbances of the biliary tract popularized by Ivy under the name of "dyskinesias." While all patients will not fit into these classifications, a brief survey of this field nevertheless seems in order.

Hypertonic Gall-Bladder with Gastric Hyperacidity

The importance of gastric hyperacidity has been previously mentioned. Clinically a nervous person, frequently with many worries, presents himself with a history of recurrent attacks of severe colic, associated with indigestion and possibly heartburn. Physical examination is usually negative. X-ray examination shows an enlarged gall-bladder shadow, with delayed emptying

recommended in every case where there is doubt as to the exact nature of the biliary tract disorder

Reliable evidence of disease can be obtained in most cases from the drainage findings by determination of the gastric acidity, gross and microscopic examination of the bile specimens, and bacteriological cultures of the bile obtained under sterile precautions. Abnormally concentrated bile indicates biliary stasis. Absence of concentrated gall-bladder bile may be found in the diseased gall-bladder, cystic duct obstruction as by a stone, or in jaundice. Abnormally dilute bile occurs in liver disorders. It is furthermore necessary to recognize that in common duct obstruction important differential diagnostic information is obtained by duodenal drainage, for the presence intermittently of some bile in the drainage is against neoplastic obstruction.

Microscopic examination of the biliary sediment as described by Lyon, gives evidence of significance in that considerable numbers of cholesterol or calcium bilirubinate crystals are frequently found in the bile of patients with stones. Bile-stained pus cells, desquamated columnar epithelial cells, or cultures of pathogenic bacteria are evidence of infection. Bile-stained mucus and pus cells are common in the catarrhal types of jaundice, cultures in these cases are usually sterile. In the postoperative patient with symptoms, common duct stones almost invariably show "sand" or calcium bilirubinate granules in the drainage bile, with *B. coli* on cultures taken with sterile technic.

Gastric Acidity Among other advantages of the biliary drainage is the opportunity of obtaining a gastric specimen. While disturbances in acidity occur in seventy-five per cent of patients with cholecystitis, its importance in producing symptoms and pathology however is seldom realized. As a matter of fact, rarely is the gastric acidity even considered in the treatment of these cases. At the same time we find repeatedly that the correction of hyperacidity entirely relieves colic in patients without stones who might otherwise come to operation. Furthermore the same treatment has been found most effective in patients with hyperacidity having colic following the removal of the gall-bladder. On the other hand gastric

achlorhydria is an important contributing factor to biliary tract infection, most patients showing positive cultures of the biliary tract at operation having no free hydrochloric acid in the gastric specimens.

Blood Chemistry Just as a urinalysis is part of our routine study, so is a *blood Wassermann*, particularly in patients with jaundice. *Blood counts* may show a marked degree of anemia in the chronic cases, or a surprising leukocytosis in acute conditions. Repeated *icterus index* tests are needed in all cases of jaundice to indicate the degree of obstruction and its variability. A *blood cholesterol* determination affords a practical guide for dietetic therapy, as a lowered cholesterol esters may indicate concomitant liver damage as demonstrated by Heyd and Graham.

Surgery

Cholelithiasis We consider biliary calculi an indication for surgical intervention. Stones lead to trauma and subsequent pathology. There is in these cases frequently infection, impairment of vascularity of the gall-bladder, and toxemia which may become severe and affect even the cardiac musculature. Small stones are frequently associated with colic. A nonfunctioning gall-bladder, as shown by lack of visualization and the absence of concentrated bile on drainage, is an indication for its removal.

Urgency for operation may be determined by the degree of physical disability of the patient, the frequency of attacks of colic, chills or fever, the failure to respond to medical treatment, the general appearance of toxemia, or the presence of recurrent jaundice. While it is in many cases possible when necessary to carry these patients on medical therapy, about forty-six per cent in our experience are not relieved of their pain. Many are forced to have emergency operations, which are attended with an increased mortality and much morbidity.

Acute Cholecystitis In passing, mention should be made that so-called acute attacks of cholecystitis are in reality acute exacerbations of a chronic cholecystitis, in most cases associated with the presence of stones. It should furthermore be kept in mind that it is possible

to have an acutely inflamed tender distended gangrenous gall-bladder, practically ready for perforation, with a normal temperature and blood count. An initial subacute attack, however, may subside and the gall-bladder return to an apparently normal condition. A careful check-up for stones is essential in these cases, after the subsidence of the acute symptoms.

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The gastrointestinal series, if done, shows a pylorospasm or duodenitis, with no ulcer. Biliary tract drainage gives concentrated gall-bladder bile, possible evidence of biliary stasis, and gastric hyperacidity.

Treatment It is in this condition that a differential diagnosis is of assistance in treatment, because of the fact that in the absence of stones the results of surgery are at times unsatisfactory, whereas the medical treatment usually gives good results. The modified Sippy type of diet is in these cases supplemented by the use of alkalies to neutralize the hyperacidity, while sedatives or antispasmodics are of additional value. Repeated duodenal drainage gives remarkable symptomatic relief in many of these patients.

Hypertonic Reflex Gall-Bladder

A similar clinical picture may be presented, by patients having evidence of a reflex disturbance of the biliary tract. Due to nervousness or worry, this may originate in the central nervous system. At times however there are other apparent reflex causes, such as diseased appendix, ulcer, gall-stones, or a pyelitis. Gastric hyperacidity is usually not found in these cases.

Treatment In general the primary consideration in the treatment of these patients is the relief of the source of origin of the reflex irritability, if necessary by removal of the patient from his environment or by the correction of some abdominal pathology. The same modified Sippy type of diet gives good results, if aided by sufficient sedatives. Alkalies are not generally necessary, but antispasmodics are frequently helpful in the relief of symptoms. Duodenal drainage is at times of additional value.

Hypotonic Gall-Bladder

The enlarged flaccid gall-bladder shadow showing little tendency to empty following

the fatty meal is familiar to roentgenologists. Patients having gall-bladders of this type are usually obese, sthenic in habitus, sedentary and phlegmatic in nature. The pain of which they complain is of a dull constant character and colic is rare. In digestion is practically always present, frequently with anorexia and nausea. Diagnostic duodenal drainage shows a deficiency in gastric acidity, and a deficient response to stimulation, which are useful guides in treatment. Biliary sediment is usually suggestive of stasis or stones.

Treatment In the absence of stones, active infection or fat intolerance, these patients respond well to a stimulating type of diet, relatively high in fat and cholesterol. General hygiene is important, and regular meals with intermediate feedings tend to relieve stasis. Dilute hydrochloric acid by mouth (we use a dram in orange juice with each meal) seems to aid gall-bladder function. The use of tonics, particularly containing strychnine, is also indicated.

Conclusions

The patient with disease of the biliary tract is practically never "cured." A careful and complete initial diagnostic work-up including a good history, is essential for satisfactory treatment. A few of the definite indications for surgery, such as stones, infection, and obstruction, have been briefly discussed. Prolonged observation and medical management is desirable in all cases of biliary tract disease. In those patients suffering from functional disturbances, the diagnostic findings as described serve as a guide for the medical treatment outlined which has proved very satisfactory in our actual clinical practice.

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AMERICAN COLLEGE OF PHYSICIANS

The Twenty-second Annual Session of the American College of Physicians will be held in New York City, with headquarters at the Waldorf-Astoria Hotel, April 4-8 1938.

Dr James H. Means, of Boston, is President of the College, and will have charge of the program of general scientific ses-

sions. Dr James Alex. Miller, of New York City, has been appointed General Chairman of the Session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of Round Table Discussions which are to be conducted at headquarters.

METHODS OF ADMISSION AND DISCHARGE IN NEW YORK STATE HOSPITALS

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*Senior Assistant Physician, State of New York Department of Mental Hygiene,
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While methods for admission and discharge in New York State Hospitals for the mentally ill are relatively simple, they nevertheless, still continue to be a source of great difficulty to most physicians. As a result there is frequently delay in admitting these patients because of improperly completed formal papers. It is with the hope of simplifying this situation that this article is written.

Methods of Admission

Any person who is believed to be mentally ill to such an extent that institutional care is necessary and who is not being held on a criminal charge, can be admitted and confined to a State Hospital or Psychopathic Hospital, or to a licensed institution. The methods of admission are

- 1 On voluntary application
- 2 On a Health Officer's Certificate
- 3 On certificate of one Physician
- 4 Court or regular commitment.
- 5 An incomplete court commitment or emergency commitment.
- 6 Criminal order
- 7 Order of transfer
- 8 By special agreement for residents

On Voluntary Application Patients may be received and confined when they voluntarily make written application on a special form prescribed by the Commissioner of Mental Hygiene. (41 Medical) These patients must be suitable for care and treatment in a mental hospital. They must have therefore, a certain degree of insight into the fact that they are mentally ill. They must also be 21 years of age and acceptable to the superintendent of the institution. Minors may be admitted when the voluntary application is completed by a guardian or parent or next of kin.

Patients of this type must agree to abide by the rules and regulations of the hospital. They may leave the hospital at any time by a written notice of this fact

to the superintendent. However, the superintendent may keep the patient in the hospital for an additional ten days after notice is given but no longer. This provision is necessary because occasionally such patients are found to be dangerous to themselves or to the community and this time interval affords a necessary period wherein the relatives may be communicated with and advised of this fact. Should the relatives desire, they can then have the patient formally committed on a regular court order. However, should they not desire to do so, the patient must be released ten days after and inclusive of the date when the notice is given in writing.

Certificate of a Health Officer The superintendent of a state hospital, or a licensed physician, may receive a patient for care and treatment when requested by a health officer. This provision, however, relates only to patients who require care for some mental abnormality other than drug addicts or drunkards. A special form (818 D M H) is prescribed which must be completed by the health officer.

A patient who is deemed unsuitable for treatment under this type of commitment must be removed from the hospital by a Public Welfare Officer of the district from which the patient came, or by the patient's relatives. They, however, may have the patient committed by a regular court commitment should the patient be found insane. It must be stressed however, that a Health Officer's certificate is good only for thirty days following which the patient must either be discharged or be committed on a regular court commitment. The expenses of this commitment can be ascertained by the judge ordering the commitment and will be a charge upon the town or district, or the patient's relatives.

While this form is frequently used to commit patients in emergencies, it is nevertheless, a poor method since it has been abused to such a great extent. It

takes little more time to have a patient committed in the regular fashion at the beginning and saves the expense of later on sending two qualified examiners to the hospital to examine the patient and then proceeding with the regular commitment. Emergencies seldom arise where it is necessary to use this form, except in districts where it is difficult to obtain the services of two qualified examiners. A much better form to use in cases of emergency is an incomplete court commitment which will be dealt with later on.

Certificate of One Physician This form is little used now. However, patients may be received on this form which consists of a certificate completed by a qualified examiner on form 92 D M H, and dated not more than ten days before the admission of the patient to the hospital. This form, again, may be of only temporary value since the patient cannot be detained more than thirty days after he, or any person on his behalf, makes a written request for his release. But, should the superintendent or judge believe that such confinement is necessary, he may so certify to a judge of a court of record who may then issue an order committing such patients for indefinite care, custody, and treatment.

Court of Regular Commitment By far the largest number of patients are admitted by this means. This special form (472) consists of three essential portions—(a) petition, (b) examination by two qualified examiners, and (c) order of commitment signed by a judge.

In addition to these divisions there are also included two other measures for service of notice and for a court hearing if such be demanded. The petition consists of an application for an order of commitment stating the facts upon which the allegation of mental illness is based. Only definite individuals may act as petitioner. These comprise

Any person with whom the alleged person may reside or, at whose house he may be or, father or mother, husband or wife, brother or sister, or the child of any such person, or the nearest relative or friend available, or the committee of such a person, or an officer of any well recognized charitable institution, agency or home, or any public welfare officer of the town, or the commissioner of public welfare of the city or county in which any such person may be

Medical Examination This consists of an examination by two qualified examiners. A qualified examiner in the meaning of the law is

A reputable physician who is a graduate of an incorporated medical college, duly licensed to practice medicine in this state, who shall have been in actual practice of his profession for at least three years at the time of the certification as such by a judge of a court of record in the form prescribed by the commissioner.

The original certificate is filed by the clerk of the County in which the physician resides, and the certified copy which is duly acknowledged is filed and recorded in the office of the Department of Mental Hygiene. Following this acknowledgment, the physician is a duly certified medical examiner in lunacy or mental defects, and the name added to a list of all qualified examiners and psychologists, published by the department.

No qualified examiner may be a relative of the person applying for admission or have any pecuniary interest, directly or indirectly, or be a resident physician in the institution at which it is proposed to admit such a person. Notice of application must be served personally at least one day before making such application upon the person alleged to be mentally deranged except if the judge to whom such application is made is satisfied from statements contained in the papers or from inquiry that personal service of the notice on the alleged person would be ineffective or detrimental to such a person. He may at his discretion dispense with it if the qualified examiners state in writing, under oath, that personal service upon the alleged insane person would in their opinion be detrimental to such a person. However should a petition be made by a person other than a husband, wife, father, mother or other nearest relative, such notice shall be served upon them if they are known to be within the county and, if not, upon the person with whom the alleged mentally ill patients may reside or at whose house they may be, or in their absence, upon a friend of such a person. If there are none such, service may be dispensed with in writing.

The joint examination of the two physicians must be made at least within ten days (not longer) before the issuance of

the formal order by the judge. Likewise, the patient must be sent to a hospital or institution within ten days after the order is issued by the judge. This provision was made in order that relatives of the patient would not be able to hold the commitment as a whip over the head of the committed person in order to attempt to force him to good behavior.

Formal Order of Commitment The judge to whom such application is made, after being satisfied that the person is mentally deranged, may immediately issue an order for commitment of such a person to a proper institution for custody and treatment, provided that no hearing is demanded on the patient's behalf. Upon this demand by a relative or friend, the judge may issue an order directing the hearing before him at a time not more than five days from the date of such an order and it shall be served upon all interested parties whom the judge may, at his discretion, name.

After such a hearing, the judge may issue his order of commitment or may refuse to issue such an order, the reasons for which he must state in writing on the certificate under his signature. When the commitment is made to a state hospital, the judge will issue a statement, also in writing, regarding the financial condition of the patient and name the persons legally liable for his maintenance, if these can be determined.

The superintendent or person in charge of an institution may refuse to receive such an individual upon such an order if the accompanying papers do not comply with the regulations of these sections of the mental hygiene law (Article 5, Sections 70 to 72 of the laws as stated by Chapter 395, laws of 1933), or, if in his opinion, such a person is not mentally deranged within the meaning of the Statute. No person will be received at such an institution under such an order after the expiration of ten days from and inclusive of the date of the order.

Incomplete Court or Emergency Commitment In spite of the requirements of section 74, providing for a court order, there is a special provision in cases where it would be for their benefit to receive immediate care and treatment when they are dangerously insane, or there is no other proper place available for this care.

Such a person may be confined immediately upon the receipt by such an institution, of the usual petition and examination by two qualified examiners and may be retained in such an institution for a period not to exceed ten days from and inclusive of the date of the certificate. Such forms (472 DMH) should be executed in duplicate, one form to accompany the patient and another to be sent to the judge who, at his discretion, may issue the formal court order, completing the certificate before the ten day period elapses. On the form accompanying the patient to the institution, adequate reasons must be given for the individual to require immediate care.

If a person committed to an institution, or a relative of friend, be dissatisfied with the order, he may within thirty days after such an order, obtain a re-hearing and review of the proceedings already had and of the order of commitment upon petition to a justice of the supreme court, other than the justice making the original order of commitment. A jury may then be summoned to investigate the question of facts arising on the competency of the person and the question of his commitment, and depending upon the verdict of the jury, the justice shall either discharge him or certify an order of recommitment.

The costs necessarily incurred in determining the question of mental derangement of a poor or indigent person is determined by the judge or justice ordering the commitment and is a charge upon the town, city or county, except in the city of New York. Here it may be allowed in the first instance by the judge who designated the qualified examiners or by the comptroller of that city, and will be paid by the chamberlain on a warrant of the comptroller from the court funds and charged to the proper county within the city.

If the person is not a poor or indigent person the expenses may be collected from the estate of such a person or from persons liable for their maintenance. The father, mother, husband, wife and children of such a person, if found to be of sufficient ability, or the committee or guardian of his person and estate, if sufficient for this purpose, are responsible for the care and maintenance of the patient.

During the period prior to commitment

to a state hospital, it is incumbent upon the health officer or commissioner of public welfare to provide a suitable place for their detention in the case of indigent persons. This may not consist of the ordinary jail cell but must be in a suitably constructed room such as the hospital ward of the prison or any general hospital, or special room where proper care and treatment and nursing are provided pending the determination of his mental condition and possible commitment. In the case of indigent patients, the public welfare officers must also provide proper and adequate clothing to the patient and this is a charge upon the village, city or town.

Other Methods of Admission

(1) *Special agreement* The commissioner of mental hygiene may authorize the superintendent of the hospital to admit under special agreement mentally deranged patients who are residents of New York State. However, no patient is allowed to occupy more than one room in any state hospital. All patients are subject to the same rules and regulations.

(2) *Order of Transfer* When a patient is confined to one state hospital and the relatives or friends should so desire, they may have him removed to another state hospital. The commissioner of mental hygiene may issue such an order of transfer if the superintendent is willing to accept this transfer.

(3) *Criminal Order* If a person not held for a felony, is confined under a criminal charge or for want of bail for good behavior, or for keeping the peace, or for appearing as a witness, or by order of any magistrate, or under any other than civil process, shall appear to be mentally deranged, the justice or magistrate having jurisdiction over the city or county in which this individual resides, may commit such a person to a state hospital within the district after the superintendent or person in charge has consented to receive such a patient. The superintendent, after a suitable period of time, will make a report to the court stating the conclusion reached and return the patient to the custody of the sheriff.

When a patient is charged with the commission of a felony or is held for

action of the grand jury the judge may also, as an aid in determining whether the individual is of sound mind, commit him to a hospital for observation for a reasonable length of time and direct that a report be made by the superintendent of the hospital. Should the person be found to be mentally deranged, the judge may discharge the criminal action and commit him to the Matteawan State Hospital for the criminal insane until restored to his right mind. He is then turned over to the sheriff for trial of his criminal action. If found to be sane in his original commitment for observation at a state hospital, the patient is turned over to the custody of the sheriff to stand trial for his criminal act.

The judge, at his discretion under a recent law, may appoint a committee of three to further investigate the question of the patient's mentality if requested by the patient or, if satisfied with the opinion of the superintendent of the state hospital, he may then proceed to summary trial of the prisoner.

Discharge of Patients

While it is generally recognized that many patients are sent to state hospitals—the present population in the Civil New York State Hospitals up to February 1, 1937, was 63,891—it is not so clearly known that numerous patients are also paroled or discharged from these hospitals. Some of these may be able to adjust indefinitely while others may and will require at varying intervals, further institutional care. Associated with the paroles of patients are also specialized agencies, the social service, and the clinics conducted by the hospitals for further guidance of the patients and investigation of special problems. At the present time the number of patients on parole amounts to approximately 6,000.

The superintendent or physician in charge of a state hospital, may discharge any patient except one held upon the order of the court or judge having criminal jurisdiction in action or proceedings arising out of a criminal offense. A patient may be discharged, who in the superintendent's judgment is

(1) Recovered (2) Not recovered, but whose discharge will not be detrimental to the public welfare or injurious to the pa-

tient (3) One who is a dotard and not insane

The superintendant may refuse to discharge any patient whose discharge, in his judgment, would be detrimental to the public welfare or injurious to the patient

Methods by which patients may be discharged from state hospitals comprise the following

- (1) Parole.
- (2) Not insane
- (3) Habeas Corpus
- (4) Non-resident.
- (5) Death
- (6) Elopement or escape
- (7) Order of transfer
- (8) Immediate discharge without parole.

Parole Suitable patients may be granted a parole not exceeding one year, during which time the individual may be returned to the hospital should his conduct turn out to be unsatisfactory. Such patients, if without means, must be provided with the proper clothing, and following this the commissioner of public welfare becomes responsible for their further needs. Following expiration of one year parole the patient may then be discharged. As a rule, patients while on parole, are required to attend a mental hygiene clinic held at various convenient locations by the members of the staff of the hospital, where an attempt is made to help the patient adjust himself adequately to an outside environment

Not Insane If, after a suitable examination, a superintendent determines that the patient is not insane or has recovered, he may be forthwith discharged from the custody of the hospital

Habeas Corpus In order to protect the personal rights of the patient, provision has been made in the law, whereby any patient who believes himself to be improperly detained in a state hospital, may ask for Habeas Corpus to determine the question of his mental derangement. Should such an order be granted and the

patient found to be mentally sound, he may then be discharged by a court order of the presiding judge

Non-resident A person who has not gained residency of the state may, if non-residency be established, be deported to the state or country in which he is a resident

Death A patient will, of course, be discharged from the state hospital records should he die while a patient there

Elopement or Escape Should a patient escape from a hospital and not be discovered after vigorous measures are taken to secure his return, he must be discharged if not returned before the expiration of one year and if discovered later he must be readmitted only upon a new order of commitment. However, a patient held on a criminal order or warrant of arrest by the United States Government as preliminary to deportation must be, upon apprehension, readmitted to such an institution on the original order of commitment.

Order of Transfer A patient may be discharged from one state hospital by transfer to another hospital following the receipt of an order of transfer from the department of mental hygiene

Summary

The methods for admission and parole of patients to state hospitals have been outlined. All the necessary forms can be obtained upon application to a state hospital or to the Department of Mental Hygiene. As can be seen the methods are relatively simple but, nevertheless, still appear to be in a state of confusion in the minds of a great many general practitioners who resort to commitment of patients infrequently. It is hoped that this brief outline will be of some help in guiding them to an understanding of the proper procedures available

STATE HOSPITAL

Prospective mothers are like athletes in training for an important event. They should live according to the rules to assure a well baby and a healthy mother. Approved diet contains nourishment for the mother and materials for building the body of the baby. Starches, fats, vitamins and minerals, with plenty of milk, leafy vege-

tables, whole wheat bread and restricted amounts of meat are recommendations often made. Women who are to be properly prepared for motherhood should have the care and advice of a physician throughout the period, and for several weeks after

—Public Relations Bureau, Med Soc State of N Y

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SOME PROBLEMS IN HEAD INJURIES

FRANZ SCHUCK, M D, *New York City*

Neurosurgeon, Queens General Hospital, New York Former Professor of Surgery, University of Berlin, and Director of the Municipal Hospital am Urban, Berlin

When choosing a practical topic like head injuries, I should first report to what material I am referring. It consists of war injuries treated at the German front from 1914 to 1918, of the post-war material in the surgical hospital of the Charité, the former Royal Hospital in Berlin, and of the patients treated in the Urban Krankenhaus Hospital in Berlin from 1925 to 1933.

Exact figures are not available from the war material, and difficult to obtain from the different wards in the Charité, while from the surgical department of the Urban Krankenhaus we published about one thousand cases of head injuries during my activity there.

Since our discussion will deal mostly with peacetime accidents, I refer mainly to the cases treated in the Municipal Hospital am Urban. They are probably very similar to yours, since the Urban Hospital in Berlin covered the section with the heaviest traffic.

When speaking of the problems of head injuries, one could follow two points of view both of which may be considered. The first is the practical problem of treatment which, in order to compare American with European methods, should be summarized as concisely as possible, the second—the real problems of an injured brain, some of which I will touch upon hereafter.

Let me begin with a simple question which, as in injuries of the spine, is practically the most important.

Which cases have to be operated upon?

In answering this question, we should not confine ourselves to the conditions of a specialized department of high standards (as the neurological department of Bellevue Hospital). We should try to formulate our indications as simply and precisely as possible, so that they may be useful to smaller hospitals with a less specialized staff, since they actually have to handle the street accidents all over the

country. A similar simplification was desirable in my former activity, because in the Municipal Hospitals of Berlin, these head injuries were treated by the general surgical departments.

In this interest of simplification, we may divide the operative indications into two general groups.

First, cases in which wounds need surgical treatment from merely surgical considerations, and

Second, cases which have to be operated from neurological and neurosurgical viewpoints.

The first group—the open injuries—regardless of whether they pertain to skin, bone, or even brain, are submitted to exactly the same surgical rules as all other regions of the body. The danger is the infection and the treatment is identical with that of other infected wounds and of compound fractures. It is true that the right middle course, not to be too conservative in order to check the infection, and not to be unnecessarily radical in order to spare brain and bone, that this middle course is a matter of experience, but it does not differ from the surgical rules in other regions of the body.

Perhaps I may mention one special experience which, I imagine, you also had during the war and in accidents of peacetime—that one should never give up a compound fracture of the skull on account of its hopeless outer aspect, and that one should not be discouraged by large openings of the bone or by crushed brain lying upon the skull. Bad as those cases look, they occasionally have a surprisingly good outcome. And in the experience of the old military surgeons, which is recorded in wound books of the fifteenth and sixteenth centuries, there is a considerable degree of truth, namely, that a large hole in the skull is often less dangerous than a simple, as they call it, "concussion."

But let us leave these cases with open wounds which have to be treated from

merely surgical standpoints. Then the great majority remains, the treatment of which depends on special conditions of the brain. And these cases represent the actual problem of treatment.

There are three operative indications, and one of them is by far the most important—increased intracranial pressure by bleeding of an intracranial vessel.

I do not need to discuss the clinical symptoms with this audience. But perhaps you may be interested in a sketch (see illustration) with which, in the interest of the aforementioned simplification, I used to explain the diagnosis in teaching.

I said "Here you have the concussion with its typical course. Here is the moment of the accident. And the symptoms, including the lack of consciousness decrease continuously."

"Contrariwise, you have the course of the intracranial bleeding. Here is the accident. After the accident, theoretically nothing but the symptoms continuously increasing, until, theoretically, death."

"Now in most cases these curves are combined. After the accident, you have the symptoms of the concussion, and they decrease typically. But, from a certain moment on, they go over into the symptoms of the compression, and the main thing is not to overlook this point X."

It is obvious that the general condition alone is not characteristic of brain pressure. But it is characteristic along with the second symptom—change of pulse.

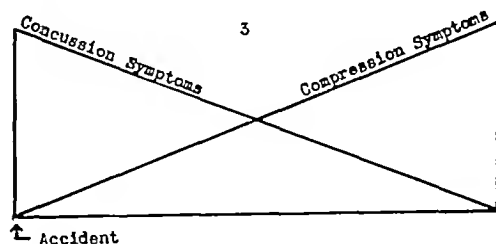
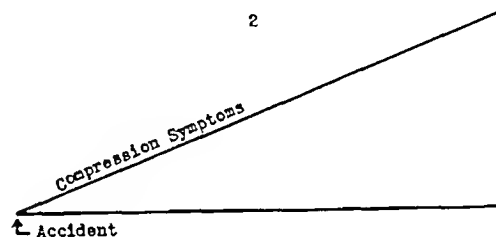
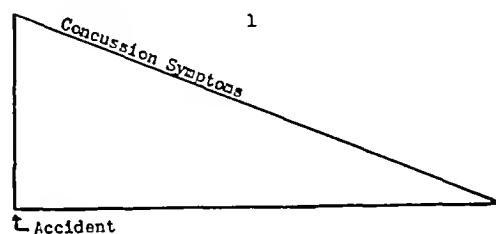
As to the pulse, it is not characteristic in concussion. There it may be slowed or accelerated, but just as well, it may be rather normal, even in a severe state of concussion. And the same inconstancy is found in the cases of increased brain pressure by a growing tumor.

But the pulse is characteristic and reliable, slow and full, in those cases of traumatic intracranial bleeding, in which within a few hours or a day, an injured vessel causes an increase of pressure. So the course alone is not decisive and the pulse alone is not decisive, but together these two symptoms are almost infallible in answering the vital question, "Increasing brain pressure or not?" That means, *operating or not?*

It is true that such cases of a real increasing brain pressure by an increasing intracranial bleeding are relatively few in

the entire number of head injuries (I think, in my former material of peacetime, not more than three to five per cent at the most). But they represent the group in which the patient is lost without operation and saved by operation. And therefore they must be recognized by every physician.

In addition to this most important indication, there are two others of minor difficulty. The first are the cases with a simple *depressed fracture* of the skull. It



has often been discussed in which cases these depressed fractures should be operated upon and in which not. I think this question is unnecessary. Provided the asepsis is reliable, I should always operate on depressed fractures if the general condition of the patient permits it.

The second situation is presented by focal symptoms of the cortex without visible depression of the bone. There are generally two possibilities—shattering of the lamina vitrea or compression of the cortex by a localized hematoma. But these decisions are not so vitally urgent and

therefore can be delayed for observation and, even in small hospitals, for neurological consultation

Hence we acknowledged three operative indications in the primary stage of a head injury, first of all, increase of brain pressure by increasing intracranial bleeding, second, all depressed fractures of the vault, and third, with the aforementioned reserve, focal symptoms of the cortex

I stressed the point of the increasing brain pressure because, in Germany, the attention of the physicians was frequently directed towards other considerations which, in this primary stage, are much less important

Such a problem of minor primary importance is the question of a *fracture of the skull*. Linear fractures of the skull have no influence upon the treatment within the first three days. This is well known of the *fissures of the vault*. They are found since the development of the x-ray technic, while they were not found before. In our experience they have no clinical importance. This is proven by cases in which the fissure is found accidentally. For instance, two men were admitted to the ward the same night, both somewhat intoxicated. One of them with a sprained ankle, the other with a slight injury of the head. X-rays were ordered for both. But by a mistake, the nurse confused the names. And to our surprise the man with the sprained ankle had an accessory fissure of the vault. Since he had no discomfort at all, it was rather difficult to keep him in the hospital the next morning.

But the *fractures of the base* are considered much more serious and, in fact, they are. But their clinical importance consists of a fact which does not appear before the third day after the injury—the danger of secondary infection through the opening of the accessory mucous cavities. Within the first two days, danger is not represented by the fracture of the bone, but by the parallel injury of the basal brain. The same physical lines of force which cause the bursting of the basal bone, are responsible for the injury of the basal brain. The result is a more or less severe injury of the brainstem with or without hemorrhage and contusions.

With this conception of the fracture of the base I necessarily desisted from operating on basal fractures unless, as mentioned before, there was a markedly increasing brain pressure, independent of the diagnosis of basal fracture. In pursuing the postmortem examinations of basal fractures for about fifteen years, I have seen *extremely few cases in which an operation would have saved the patient*. Contrariwise, I saw many cases in which the surgical decompression, correctly performed on account of diagnosed brain pressure, could not save the life of a patient with basic fracture because, in addition to the hemorrhage, his brainstem was fatally injured.

Through this, I think we are entitled to limit the operative indication to the general consideration of brain pressure without making any special conditions for the fracture.

After having indicated some outlines of therapy as concisely as possible, perhaps I may enter into some real problems of brain injuries which are fundamental for the future development of treatment. An old classical problem which occupied general surgery long before there was any neurosurgery is the *mechanism of the trauma*.

The best monograph about the mechanism of head injuries is still the classical work of Kocher published in 1900. One of his main experimental collaborators was Dr. Cushing, at that time in the surgical hospital in Bern. Kocher's work was named "Concussion of the Brain, Compression of the Brain and Surgical Operations in Diseases of the Brain."

While the chapter about operations is rudimentary (1900) Kocher's investigation of the mechanism is classical and, I think, will remain fundamental.

When speaking of the concussion of the brain, or, in the German language, the "*Hirnerschütterung*," Kocher always uses the term, the "so-called" concussion. By this he denied the conception of a vibration which is contained in the word concussion and particularly in the German word "*Erschütterung*." In a blunt head injury, Kocher acknowledged only one mechanical happening—the compression. For him the concussion of the brain is an acute compression of the brain tissue. So he only differentiates between

an acute and chronic compression of the brain tissue

I shall not take up your time by a detailed description of the classical experiments of Kocher and his school, nor shall I tire you by a report of my own experiments performed fifteen years later in the Charte, which convinced me of similar happenings in the brainstem. I had better mention the fact that outstanding physicists whom we consulted on this question approved the mechanical factor of the compression and denied any other physical happening. In 1920, Dr. Einstein, at that time in the Kaiser Wilhelm's Institute in Berlin, was kind enough to help me in this matter by sending Dr. Reiche, his associate, and this scientist, without touching upon any physiological or medical question, confirmed the physical conception of the acute compression.

When speaking of the acute compression, I have to report the following. In 1913 I published the theory that concussion of the brain was caused by an acute compression of the lower brainstem and represented its symptoms. This theory was rather courageous when published mainly from laboratory observations and by a young physician with a very limited experience. But strange as it is, after twenty years of practical experience with head injuries, I still believe the theory was correct.

In order to prove this conviction, I should go into details which I am afraid would take up your time with too much theory. But I shall be glad to furnish proofs in case you are interested.

Not to be misunderstood, this does not mean any doubt of Hitzig's classical theory that consciousness is composed of actions which are localized in the entire brain cortex. This classical theory of the cortex has been modernized and, if I may say so, greatly improved by Dr. Kennedy's conception of the multiple, specific centers all over the cortex. But the fact that consciousness is based upon activity of the brain cortex does not mean that there are not close connections with the brainstem, and particularly does not mean that it cannot be interrupted from the brainstem. And I think there is overwhelming clinical material to prove that this actually happens in severe head injuries.

When continuously speaking of brain injuries, we should consider what actually happens to the brain tissue. But this is not easy to summarize.

Again, we may start from the experimental observation that an animal goes into a bad coma or dies when its lower brainstem, particularly the rhomboid fossa, is ungently touched. All surgeons in our midst will agree that unfortunately the human brain does not differ in this respect. Touching the rhomboid fossa, moving the organs in the basal region of the posterior fossa, or even quick change of its intracranial pressure, represent a fatal danger we try to avoid.

So, from these least mechanical injuries which may be fatal yet not visible postmortem, we have all degrees of transition to grave contusions and destructive hemorrhages within the brain tissue. In a mechanical sense, these differences are easy to understand. They were roughly interpreted by the old classical experiments of the "Coup" and "Contrecoup," and are very precisely explained through modern physical analysis. In the aforementioned collaboration with physicists, there was a remarkable conformity between their drawings of lines of force, constructed only from the detailed history of the accident, and the postmortem findings of contusions and hemorrhages in different parts of the brain. These comparisons were made with the help of our pathologist, Geheimrat Lubarsch, who, of course, had not seen the drawings before the autopsy.

While this is clear, I wish to ask one question (which Dr. Stevenson may be better able to answer than the pathologist.) I mean about the explanation of the *punctiform bleedings* all over the brain—we called them *ecchymoses*—which have so often been described as a typical postmortem finding in concussion of the brain. I wonder whether or not these findings are similar to the *punctiform bleedings* which are typically found in cases of suffocation. This would be quite understandable, since the primary death in a brain injury mostly occurs from a paralysis of the respiratory center and therefore from true suffocation. I ask this question because these hemorrhages are frequently used as a proof for the cortical theory of concussion.

But, as mentioned, these postmortem findings are generally not difficult to interpret. Much more difficult to interpret are the injuries which, probably with very little morphological effect, have taken place in a surviving brain. If they happen to be in a center with obvious symptoms as, for instance, in the vagus center, they can easily be understood as symptoms of irritation and paralysis. But we are completely helpless in regard to the many centers which we have not even started to know.

The most trying phenomena of this kind are the secondary disturbances referring to character, mood, temperament, and so forth. Fifteen years ago such a decision was easy. Whatever we could not explain with very mechanical reasons, as increased brain pressure, adhesions, irritation of well-known gyri, and so forth, was considered as a "functional" disturbance which, in our true opinion, was very closely connected with lack of self-discipline or with a more or less conscious wish for financial compensation.

In fact, this medical scepticism toward functional residua of head injuries is largely backed by the great experience of war injuries. At least this was so in Germany. We had overwhelming proof by the statistics of the German wounded that the degree of functional residua bore a direct relation to the personal interests of the patients.

It is a very similar thing in the accidents of peacetime. We saw types of vocations which had an almost complete lack of secondary complaints, such as officers of cavalry, ace flyers of the war, famous racing men, regardless whether horseback riders or automobilists, and so forth. Contrariwise, there were classes with a decidedly bad prognosis, for instance the working class, particularly in periods of a liberal insurance legislation.

Hence it is only logical that we retain our scepticism and are suspicious towards everything which seems to exceed the normal. To give a rough outline—in compensation cases without apparent anatomical change, we were usually very liberal during the first year, less liberal during the second, and illiberal after two years.

However, there is some very uncomfortable feeling connected with this at-

titude. There is no doubt that this empirical and rather rough judgment corresponds in no means with the present stage of pathological and clinical brain investigation. In a time in which, even in general medicine, functional disturbances are going to be transmuted into very material happenings of a chemical, electrolytic, and hormonal nature, one feels rather uneasy in neglecting organs which, as the hyperthalamus, are regulating centers of these happenings.

Undoubtedly, future laboratory work will contribute more and more to a change in the merely empirical judgment of these compensation cases.

Let me finish with a similar consideration for the future of brain surgery. Through Harvey Cushing, modern brain surgery has reached a climax which is comparable only to the classical rise of abdominal surgery through Billroth and his school. And likewise comparable with that period is the climax of confidence which brain surgery receives from the field of medicine.

But there is another point of comparison. Like abdominal surgery at that time, modern brain surgery is still in the early stage of an entirely mechanical conception. But history of surgery has shown that such mechanical periods are unavoidably followed by a conservative reaction and by waves of other methods of treatment and investigation. In order to overcome this dangerous reaction, brain surgery should control its own activity, should become neither one-sided mechanical nor too aggressive, in spite of the temptations of a brilliant technique. From this standpoint, I fully sympathize with the surgical principles in the neurological department of Bellevue Hospital where ideas are radical and action conservative.

In this case, but in this case only, brain surgery will increase its present distinction when the development of brain research enters other and less mechanical fields.

This change of endeavors has been particularly impressive to me through the course of my medical life.

I started in the orthodox Swiss school of Kocher and Hildebrand, which, in spite of its singular familiarity with the brain, worked with an almost mute brain-

stem. And after twenty years of practical work, I meet this same brainstem in your laboratory, but alive with new autonomous, chemical, and hormonal problems, moreover with problems which allow new ways for endeavors in neurosurgery.

So I wish to close with sincere thanks to the men of the Neurological department of Bellevue Hospital, who, through their knowledge and friendship, helped me to resume work in this old, familiar, but greatly altered field.

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Case Report

THEVETIN IN POSTOPERATIVE THYROID CRISIS AND COMPLICATING BRONCHOPNEUMONIA

L W GORHAM, M D, S J MARTIN, M D, C C NUCKOLS, M D,
and J C MCCLINTOCK, M D, *Albany*

From the Departments of Medicine and Physiology Albany Medical College

Current literature has established the pharmacological activity of thevetin, a cardiac glucoside, which has digitalis-like properties^{1, 2} and has emphasized its clinical usefulness in cardiac decompensation.^{3, 4} Recently, its administration has been suggested as a prophylactic measure by decreasing cardiac hyperactivity in the pre- and postoperative stages of thyrotoxicosis as well as during operative procedure.⁵ The following case is reported to show the successful use of thevetin in postoperative crisis complicated by a bronchopneumonia in which it was hoped essentially to obtain subjective relief from disturbing tachycardia and restoration of a decompensating heart.

Case Report

D R., age twenty-three, single, white female entered a local hospital on January 2, 1937, because of her complaint of "tiredness and beginning nervousness." Onset of complaint dated to its insidious appearance a few years ago. She had had a goiter for the past ten years. Since November 1936, the patient had experienced increasing nervousness, marked fatigue, palpitation, and an unusually good appetite. There was no weight loss. Past medical, social, and family history were essentially irrelevant. After three weeks' preparation with compound solution of iodine, a right thyroid lobectomy was done. On the fourth postoperative day, she left the hospital against the advice of the staff and was admitted to the Albany Hospital on the service of George E. Beilby, M D, to whom the authors are indebted for permission to present this case.

Physical examination revealed a fairly well-nourished white female apparently not acutely ill, although the face was pale and lips and nailbeds slightly cyanotic. The skin was warm and moist. Other pertinent findings were as follows:

The neck presented a surgical dressing under which there was a recent low collar incision with a small opening in its center from which a small amount of serum drained. The left and median lobes of the thyroid gland were palpable and diffusely enlarged. Examination of the larynx revealed apparently a complete paralysis of the abductor muscle on the right side. The right cord was fixed in the midline. There was a partial aphonia and a non-productive cough. Examination of the lung area revealed normal findings. The heart beat was strong and regular with a rate of 120, heart size apparently within normal limits to percussion, no murmurs heard. Blood pressure was 130/70. Reflexes were bilaterally equal and hyperactive. On admission, temperature was 99.6°F, pulse rate 120, respiratory rate 23. Laboratory examination revealed a B M R of +47, Hb seventy-five per cent, rbc 4,170,000, and wbc 10,900. Urinalysis and Wassermann tests were negative.

Further surgery was decided upon and the patient accordingly given the usual preoperative management for the next eleven days consisting of bed rest, high caloric diet, Lugol's solution, ten minims tid with sedatives as necessary for sleep. The temperature, pulse, and respiratory rates before the second operation were 100°F, 120, and twenty respectively. A subtotal resection of the left and median lobes of the thyroid gland was then done. The postoperative course was stormy with all evidences of an unfavorable prognosis. The patient com-

But, as mentioned, these postmortem findings are generally not difficult to interpret. Much more difficult to interpret are the injuries which, probably with very little morphological effect, have taken place in a surviving brain. If they happen to be in a center with obvious symptoms as, for instance, in the vagus center, they can easily be understood as symptoms of irritation and paralysis. But we are completely helpless in regard to the many centers which we have not even started to know.

The most trying phenomena of this kind are the secondary disturbances referring to character, mood, temperament, and so forth. Fifteen years ago such a decision was easy. Whatever we could not explain with very mechanical reasons, as increased brain pressure, adhesions, irritation of well-known gyri, and so forth, was considered as a "functional" disturbance which, in our true opinion, was very closely connected with lack of self-discipline or with a more or less conscious wish for financial compensation.

In fact, this medical scepticism toward functional residua of head injuries is largely backed by the great experience of war injuries. At least this was so in Germany. We had overwhelming proof by the statistics of the German wounded that the degree of functional residua bore a direct relation to the personal interests of the patients.

It is a very similar thing in the accidents of peacetime. We saw types of vocations which had an almost complete lack of secondary complaints, such as officers of cavalry, ace flyers of the war, famous racing men, regardless whether horseback riders or automobilists, and so forth. Contrariwise, there were classes with a decidedly bad prognosis, for instance the working class, particularly in periods of a liberal insurance legislation.

Hence it is only logical that we retain our scepticism and are suspicious towards everything which seems to exceed the normal. To give a rough outline—in compensation cases without apparent anatomical change, we were usually very liberal during the first year, less liberal during the second, and illiberal after two years.

However, there is some very uncomfortable feeling connected with this at-

titude. There is no doubt that this empirical and rather rough judgment corresponds in no means with the present stage of pathological and clinical brain investigation. In a time in which, even in general medicine, functional disturbances are going to be transmuted into very material happenings of a chemical, electrolytic, and hormonal nature, one feels rather uneasy in neglecting organs which, as the hyperthalamus, are regulating centers of these happenings.

Undoubtedly, future laboratory work will contribute more and more to a change in the merely empirical judgment of these compensation cases.

Let me finish with a similar consideration for the future of brain surgery. Through Harvey Cushing, modern brain surgery has reached a climax which is comparable only to the classical rise of abdominal surgery through Billroth and his school. And likewise comparable with that period is the climax of confidence which brain surgery receives from the field of medicine.

But there is another point of comparison. Like abdominal surgery at that time, modern brain surgery is still in the early stage of an entirely mechanical conception. But history of surgery has shown that such mechanical periods are unavoidably followed by a conservative reaction and by waves of other methods of treatment and investigation. In order to overcome this dangerous reaction, brain surgery should control its own activity, should become neither one-sided mechanical nor too aggressive, in spite of the temptations of a brilliant technique. From this standpoint, I fully sympathize with the surgical principles in the neurological department of Bellevue Hospital where ideas are radical and action conservative.

In this case, but in this case only, brain surgery will increase its present distinction when the development of brain research enters other and less mechanical fields.

This change of endeavors has been particularly impressive to me through the course of my medical life.

I started in the orthodox Swiss school of Kocher and Hildebrand, which, in spite of its singular familiarity with the brain, worked with an almost mute brain-

stem And after twenty years of practical work, I meet this same brainstem in your laboratory, but alive with new autonomous, chemical, and hormonal problems, moreover with problems which allow new ways for endeavors in neurosurgery

So I wish to close with sincere thanks to the men of the Neurological department of Bellevue Hospital, who, through their knowledge and friendship, helped me to resume work in this old, familiar, but greatly altered field

25 E 86 St

Case Report

THEVETIN IN POSTOPERATIVE THYROID CRISIS AND COMPLICATING BRONCHOPNEUMONIA

L W GORHAM, M D, S J MARTIN, M D, C C NUCKOLS, M D,
and J C McCLINTOCK, M D, *Albany*

From the Departments of Medicine and Physiology, Albany Medical College

Current literature has established the pharmacological activity of thevetin, a cardiac glucoside, which has digitalis-like properties^{1,2} and has emphasized its clinical usefulness in cardiac decompensation.^{3,4} Recently, its administration has been suggested as a prophylactic measure by decreasing cardiac hyperactivity in the pre- and postoperative stages of thyrotoxicosis as well as during operative procedure.⁵ The following case is reported to show the successful use of thevetin in postoperative crisis complicated by a bronchopneumonia in which it was hoped essentially to obtain subjective relief from disturbing tachycardia and restoration of a decompensating heart

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plained of increasing palpitation, shortness of breath, and productive cough. On the third postoperative day, the body temperature rose gradually to 102, and the following day to 103°F, with evidence of cyanosis of the nailbeds, slight dyspnea, and an irregular pulse rate averaging 160. Further examination showed a beginning bronchopneumonia and signs of congestive heart failure, edema at the lung bases, and swelling of the ankles. An EKG revealed an acute simple tachycardia, and an x-ray plate of the chest an early bilateral bronchopneumonia with a small amount of effusion at the left base. Total white blood cell count was 18,000 cu mm.

The postoperative treatment consisted essentially of the following. *First postoperative day*, 1000 cc of five per cent glucose in normal saline intravenously, sodium iodide, one gram intravenously, Lugol's solution 0.6 cc tid per os and codeine sulphate, 60 mgm for pain prn q 4 h. *Second and third days*, only the Lugol's solution and codeine sulphate were administered. *Fourth day*, after definite evidence of complication was obtained, the patient received 4300 cc of five per cent glucose in normal saline and sodium iodide, one gram intravenously in twelve hours and digitalis 180 mgm orally. Since the action of thevetin is more prompt than that of digitalis,⁴ thevetin* was administered, and served both to reduce the disturbing tachycardia and the cardiac insufficiency.

One ampoule (3 cat units) of thevetin was injected intravenously for three doses (4, 9, and 12 P M) on the fourth postoperative day. Four hours after the third dose the pulse rate dropped from 166 to 130.

*We are indebted to Dr K. K. Chen, Director of Pharmacological Research, Eli Lilly and Company, Indianapolis, Ind., who furnished us with an ample supply of thevetin.

respiratory rate from 30 to 23, and body temperature from 103.8 to 99.8°F. The urinary output, after thevetin administration was begun, increased from thirty-four to seventy per cent of the total fluid intake. Marked subjective as well as objective improvement was noted. On the following day, the TPR rose to an average of 100.6-140-26 and the dosage of thevetin was repeated three times at four-hour intervals. On the sixth postoperative day, with an average of TPR of 99-120-23, thevetin was discontinued and digitalis, sixty mgm bid was substituted for continued cardiac support. This was discontinued the next day and the subsequent course was essentially uneventful. The patient left the hospital seventeen days postoperatively, convalescent from her bronchopneumonia, with restored cardiac function, and relief from her symptoms of nervousness and fatigability. A pathological report of the thyroid gland noted a moderate hyperplasia developing apparently on a basis of colloid goiter.

The recent contribution⁷ in the prophylactic use of thevetin must be given consideration in the treatment of thyrotoxicosis. We add our experience of the efficacy of thevetin in thyroid crisis characterized by acute simple tachycardia and cardiac decompensation with complicating broncho-pneumonia.

References

1. Chen K. K., and Chen, A. L. *J Pharm and Exp Therap* 49: 561, 1933.
2. Idem *Ibid* 51: 23, 1934.
3. Idem *J Biol Chem* 105: 231, 1934.
4. Arnold, H. L., Middleton, W. S., and Chen K. K. *Amer J Med Sc* 189: 193, 1935.
5. Middleton, W. S., and Chen K. K. *Amer Heart J*, 11: 75, 1936.
6. Daniels, E. R., and Middleton, W. S. *Ann Int Med* 10: 505, 1936.
7. Noble, T. R., and Chen K. K. *Amer J Med Sc* 192: 639, 1936.

FUTURE FORCES TO NEUTRALIZE BIRTH CONTROL

It is altogether probable that as highly efficient biologic methods of birth control are introduced, supplanting the crude devices of today, the population will nevertheless tend to be balanced by reason of very great progress in the control of such ailments as cancer, diabetes, pneumonia and the "common cold," believes the *Medical Times*. Conquest of the common cold would alone conserve the population vastly, for it is so very often the initial step of a major infection. A vision of a disarmed pneumonia is by no means preposterous. The time is not far distant when a weekly,

monthly, or even yearly injection of "insulin" will suffice to divest diabetes of all its terrors. Cancer is scheduled for defeat.

A social order in which good hygiene and sanitation, proper diet, decent housing, economic sanity and peaceful relations with neighbors were to prevail would enormously simplify public health (and mental hygiene) programs and further conserve populations biologically and numerically. It is also to be presumed that under civilized conditions of life people would not be panicked by the very idea of parenthood, as is now so often, and so understandably, the case.

PERIPHERAL VASCULAR DISEASE

Simple External Suction

JOSEPH TENOPAR, M D, F A C S and B G P SHAFIROFF, M D, *Brooklyn*

From the Surgical Service, Kings County Hospital

Suction was employed by Bier to produce what he called a "stauungs hyperemie" to increase the natural body forces against inflammation. He also advocated the use of suction chambers as a mechanical aid in restoring motion to immobile joints and paralyzed muscles. He claimed that "a marked hyperemia is produced in the respective joint the consecutive vascularity and serous infiltration of the parts rendering them mobile." Many years before Junod,¹ Bier, and Murray enthusiastically treated many diverse diseases with apneumatic chambers for which they predicted its universal application in medicine.

Landis and Gibbons² in their excellent pioneer studies objected to simple suction on the basis that it caused an increased blood flow and a fall in blood pressure in the terminal vascular system of too short a duration to effect an increase in the peripheral circulation of any therapeutic value. They claimed that suction alone would fill the capillary to venule system up to a point of maximal distention after which time the internal resistance of the capillary bed would either resist the force of suction or would break (rupture of vessel wall) with resultant capillary hemorrhage. They therefore devised a system of alternating suction and pressure exerting its forces on an extremity in definite time cycles, such as a negative pressure of 120 mms Hg for a period of twenty-five seconds followed by a positive pressure of 120 mms Hg for five seconds. This cycle of negative to positive pressure permits the flow of blood from the arterial tree through the arteriolar to capillary to venule system with minimal distension or stasis as well as providing for the return of the blood to the right heart. The sole purpose of the additional positive pressure to the suction is to empty the peripheral vessels. They conclude therefore that "simple intermittent suction with its rest periods would probably be less efficient

since (a) the congestion produced by the cuff would not be overcome and (b) emptying would be slow and incomplete."

It is interesting to note that medical literature offers little reference to the exclusive use of simple suction in circulatory disturbances of the extremities other than the work of Sinkowitz and Gotthieb reported in 1917 for the treatment of thromboangitis obliterans by Bier's method of suction hyperemia, Braeucker's³ use of the same method for Raynaud's disease, and the first rationalization of the modern clinical reported by Reid and Herrmann.⁴

With the increasing conservative trend in the treatment of peripheral vascular disease, we devised a simple suction chamber which permits of suitable negative pressures alone and corrects the main physiological objections mentioned above. Complete and rapid emptying can be accomplished by the simple expedient of applying the suction to the extremity in an elevated position. This emptying occurs whether the system is in an atmospheric or subatmospheric environment. Positive pressure can therefore be eliminated and the advantages of suction afforded, namely a thorough perfusion of the capillary venous bed without stasis and continuous return flow to the right heart. Though this observation was made independently by us without the knowledge of Reid and Herrmann's work, they have originally stated about this subject:

During the early part of our work we employed alternately positive and negative pressures to the extremities, but we soon found that even relatively small amounts of positive pressure frequently caused sufficient compression of the diseased arterial wall to produce extensive secondary thrombosis. It is because of this experience that we feel that an extremity in which the arteries are diseased should never be subjected to any form of therapy which might compress the arterial wall even when that compression only lasts for a few seconds.



Fig 1 Extremity in boot, ready for suction.
Note tube sealing end of boot

We have found that simple elevation of the extremity slightly above the level of the heart is sufficient in most cases to provide rapid and adequate drainage of blood from the extremity. The elevation of the extremity during the treatment with negative pressure is highly important since much of the immediate benefit is derived from the thorough flushing of the capillaries and arterioles as well as the venules and veins of the distal part of the extremity with freshly oxygenated blood and the prevention of venous stasis.

The purpose of this paper is to show that a simple suction device can be used in the treatment of peripheral vascular disease without the necessity of purchasing the expensive apparatus now on the market. The apparatus can easily be assembled in any hospital and can be more generally used by the profession with the knowledge that the same physiological benefits can be obtained as with a commercial pattern. Simply it consists of the regular portable suction machine used for surgical aspiration connected to an airtight chamber or boot by rubber tubing. A small expenditure is involved

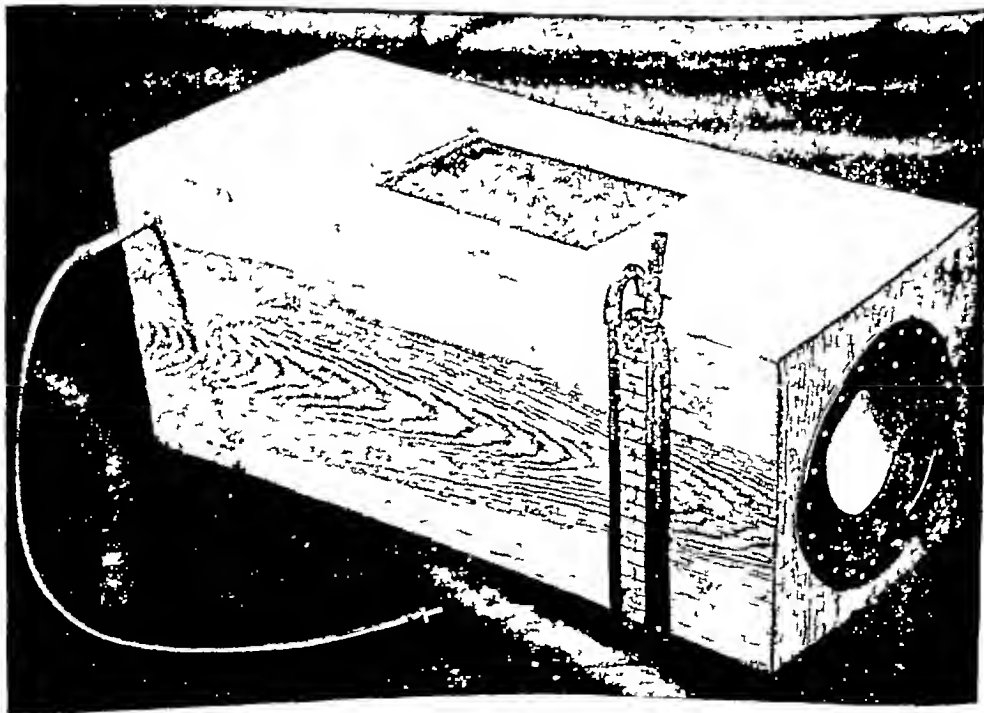


Fig 2. Wooden suction chamber

in the construction of the boot. We used three boots, two of which were made of a rust proof tin and one was made of a grade one wood fitted with windows. These can be readily made by a carpenter or tinsmith according to specification. Before the extremity is inserted into the boot, a properly fitting non-constricting rubber tube encircles the leg or thigh. These tubes resemble in appearance the inner tube of an automobile tire and are of various sizes. They are home made but are so constructed that on inflation the proximal circumferential rim is fixed while the outer rim can be expanded distally to fit snugly into the end of the boot (Fig 1-3)

Earlier in the work, regular pressure readings were taken on the manometer connected with the outlet, later this practice was discontinued and the sole guide was the patient's sensation of pain or discomfort for stopping treatment. Rather than interrupted treatments at high negative pressures for short intervals, our treatments are given at minus 30 to minus 50 mm Hg maintained continuously for one-half to two hours, according to the patient's tolerance. It is possible to use suction at a continuous constant negative pressure by inserting small objects between the tube around the leg and the outside to permit a small air leakage. We have had the suction going

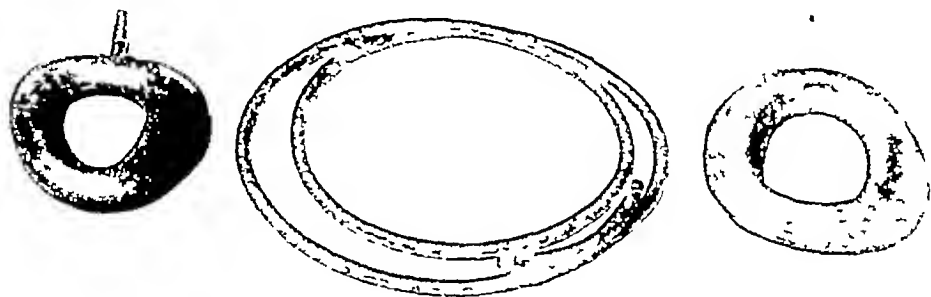


Fig 3 Tube which seals end of boot or chamber

The tin boots are of two sizes, one extending above the knee, the other ending two or three inches below the knee. The larger boot is used in cases where involvement of popliteal and femoral vessels are indicated by the oscillometer. The smaller boot is used in cases where pathology exists primarily below the tibial vessels. Generally, it is preferable to apply suction with the entire extremity including the knee in the chamber or boot. The proximal end of the wooden chamber is closed by a rigid rubber diaphragm with a large central hole of a size to enclose the average extremity around the lower thigh. The extremity encircled by its inflated tube seals the proximal end. The outlet on the boot is connected to the suction machine by pressure tubing. The button on the suction base permits the patient to start and stop the negative pressure when the treatment period is ended or the sensation of pain is present

for long time periods at lower than usual negative pressures with good results such as a negative pressure of fifteen-twenty mm for six hours. The treated limb in every case is elevated during the suction period.

Thus far the clinical results are a confirmation of the beneficial effects reported by other workers with the Pavex machine. We do not aim to give a detailed clinical report consisting of oscillometric readings, thermocouple measurements or other physical data because of the small number of cases treated. A limb after treatment was dark red in color and warm to touch, usually much warmer than the untreated side. The patients reported their own perception of this warmth which included the digits especially. Relief from pain was noted in twelve of the sixteen cases treated by this method. Three of these had Buerger's disease, twelve were diabetic arteriosclerotics, and

one was a severe frostbite of the lower extremities. One case developed capillary ecchymosis directly due to suction. Two cases with gangrenous toes considered for amputation healed completely. Six arteriosclerotics reported relief from pain and improvement in walking distance. The frostbite case responded well to suction, improvement in skin texture, relief from persistent coldness of the feet, cessation of walking pain was also experienced. No other treatment was used in any of these cases during the course of suction therapy. From our present data we can conclude that simple suction is a rational method of treatment.

Summary

A simple easily constructed external suction apparatus is offered for further study in the treatment of peripheral vascular disease.

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References

- 1 Junod, V. I. *Traite Theorique et Pratique del Hemospasie*, Masson, Paris, 1875
- 2 Landis, E. M. and Gibbon, J. H. *J Clin Invest.* 12 925, 1933
- 3 Braeucker, W. *Der Chirurg*, 3 756 1931
- 4 Reid, M. R. and Hermann, L. G. *J of Med* 14 200, 1933
- 5 Meyer, W. and Schmieden, V. *Bier's Hypertemic Treatment*, W. B. Saunders Co., Philadelphia

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

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Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Combination of Misfortunes

A man of forty-five who had never read any novels or love stories was in love with his wife and she with him since they married at twenty—one example of a successful union. But just as the *Bourgeois Gentleman* spoke prose all his life without realizing it, so our man discovered his deep affection for his partner and the poetry of his life only after she died. The world was empty without her. "Any noise and I hear her coming." He struggled not to show his weakness, but the tears rushed and blurred his vision. It was not only a moral necessity. He was helpless without her. She had done everything for him and for the rest of the family. He had gone to the shop, but what was that compared with her ability to multiply herself and find a solution to all problems? "I am lost without her, I have lost my wife, my home, and now, my job." Yes, that was the crowning of the tragedy—his job. What a coincidence! It seems strange to him. He had been working steadily ever since "he was a kid" and just now he was not wanted. It would not have mattered, but there were three children and they all needed help. "For myself—who cares? I can be anywhere, I can go any place. And why live altogether?" So he had given up his home, put the furniture in storage—"good stuff, all my penties in there and chosen by her, with her fine taste"—and sent his children to a relation

in another town. The poor always assist one another.

But one day he went to see the children and he learned sad news. His boy of fifteen had almost drowned, he was rescued and it took a long time until he could be revived. He had gone swimming to a place near rocks, where there was a sign "Danger." Asked why he had done that he replied "What should I have done? All the boys go there. I'd have looked like a sissy." Then the father went to the neighbor's and spoke to his youngster and he also said "If I don't go with the other guys, I'll look like a sissy."

That is why this father broke down and is both unable to work and find work. He is sure that under his wife's guidance and leadership none of his children would have put himself in any dangerous situation. His may have been a masochistic nature inclined to hypochondriasis, but the latter may not have appeared if it had not been released by an untoward chain of events.

Encouragement made it possible for him to resume work at his trade, to build up a home again, to bring in his sister as a housekeeper, and to feel more secure about the children's fate.

A woman of thirty-nine is at the peak of unhappiness.

"Look at my hands," she says. There is a coarse and rapid tremor which has been present for several years, ever since her husband was declared tuberculous and had to leave for a City sanitarium where he still is. Then she had to give up the house and go to work as a dressmaker in the same shop which she hated so much and where she had been employed as a girl. The child, now six, is an inmate of an orphan home and can be seen at rare intervals only. Her lungs and thyroid gland are apparently in good shape, her metabolism test registers normal, but her heart is defective. She is tortured by the fear of impending "paralysis" of the hands.

"I am not concerned about myself," she declares, "we don't die twice, but my child will be sent home soon, in another year or so, and my husband will need me too. And my employer doesn't want me in the shop. The old boss didn't look at me and never knew about my shivering hands. But his young son, who just joined the firm, is very careful and the more he watches, the worse my fingers jump. In fact the material shivers away from me. Then he has another

reason. He wants only good-looking and well-bred girls. That should be none of his business."

Indeed she is ugly and worn out and ugliness is pardoned only in those who can cover it with elegant and graceful clothes. She is uneducated, but tries to be polite in her own way. "Every day, excuse me, I take a shower."

"He gave me another month. After that I'll have to quit and wherever I'll go they'll notice my shaking and won't take me. Meanwhile the new boss has cut down the wages, reducing five cents to the dress, from 38 to 33 cents."

She could not finish the month. She cried day and night and felt lonely and lost, ready to commit suicide. Indeed she attempted it once.

She was advised to change her occupation and enter the domestic service, which she reluctantly did. This and the assurance that there was no danger of "paralysis," as well as instructions how to take care of herself, solved the problem, at least temporarily. Her tremor was incurable.

611 W. 158 St

INTERNATIONAL CONGRESS OF RADIOLOGY

Simultaneous projection of pictures and text in three languages will be an unusual feature of a gathering of leading physicians and physicists of the world in Chicago this September, according to Dr. Arthur C. Christie, Washington, D. C., president of the Fifth International Congress of Radiology. Whatever the speaker's language, translation of his paper will be thrown on the screens in English, French, and German so that practically everyone attending the Congress will be able to understand it, he said.

It will be the first International Congress ever held in the United States, Dr. Christie added, and will mark the forty-second year since Dr. William Conrad Roentgen discovered x-rays, and the thirty-ninth year since the Curies discovered radium. The vast progress made in development of the medical and other uses of these two boons to mankind will be portrayed during the Congress, not only through the scientific papers and discussions, but in graphic exhibits.

The Congress will be held at the Palmer House, Chicago, and more than 12,000

square feet of floor space will be devoted to an extensive scientific exhibit to be arranged by scores of hospitals and research laboratories throughout the world. Over 20,000 square feet will be devoted to commercial exhibits, showing the latest equipment manufactured by leaders in the field, ranging from x-ray negatives up to models of million volt therapy apparatus.

A "short-term" medical school will be conducted during the Congress, said Dr. Christie. Eminent leaders in the field of Radiology will conduct short courses. All of the United States radiological societies, including the Radiological Society of North America, American Roentgen Ray Society, American College of Radiology, and American Radium Society, will hold their joint annual conventions during the Congress and will elect officers. At least 500 foreign delegates are expected from 30 different countries, and over 2000 United States physicians will attend. Physicians in other branches of medicine may attend the Congress, according to Dr. B. H. Orndoff, 2561 N. Clark Street, Chicago, general secretary.

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EDITORIALS

Thumbs Down on Fraud

The Wheeler-Lea bill now pending in Congress makes a direct and highly practical attack on fraudulent advertising of foods, drugs, cosmetics, and therapeutic devices. By giving the Federal Trade Commission specific jurisdiction over these products, it enlarges the scope of the present Food and Drugs Act in accordance with present day needs.

While the Commission will have no authority to stop the manufacture or sale of objectionable products even if the Wheeler-Lea bill is enacted, control over advertising will go far to banish fraud and misrepresentation from the industries specified. The patent drug manufacturer, the dealer in cheap diathermy and ultraviolet machines, the vendor of psyllium seeds, could get nowhere without highly colored promises and claims which it would take a miracle to fulfil.

In spite of the current cult of sophistication, a paid testimonial, no matter how blatantly false or immaterial, can still gain credence where disinterested expert opinion is refused a hearing. The Wheeler-Lea Act empowers the Federal Trade Commission to stop this sort of advertising where it is dangerous to the consumer.

No one could pretend that this bill

represents the ideal in aggressive governmental action to protect the consumer against fraud. In the absence of a modernized food, drugs, and cosmetic law, with the necessary teeth to make it effective, it is a stopgap of which there is undoubtedly need. Clamp down on fraudulent advertising and you cut down the sale of worthless, overpriced products. This is particularly true of drugs and cosmetics. For this reason the Wheeler-Lea bill deserves consideration in spite of its shortcomings.

A Practical Guide

While physicians who engage in dishonest or flagrantly unethical practices undoubtedly do so with full realization of what their acts portend, a number of practitioners slip from the path of strict professional rectitude for want of authentic information in regard to their duties. This is particularly true in connection with technicalities in the Education and Public Health Laws.

To prevent errors and give the young practitioner a fair start, the State Society has proposed that the Education and Health Departments each issue a pamphlet to new licentiates setting forth what is required of them under the vari-

ous laws and regulations governing medical practice. The Education Department's brochure would explain the procedure for local and annual registration. The Health Department's leaflet would describe the practitioner's duties under the Public Health Law. For licentiates settling in large cities with an extensive municipal Sanitary Code, a statement of local regulations could be included.

It would take a minimum of money and effort to carry out this plan. Compilation of the pamphlets would not be difficult, the cost of printing would be little, the expense of distribution negligible. For the slight outlay entailed, the State would have the assurance that every physician embarking on the practice of medicine understands the legal requirements of his profession, requirements made in every instance for the public good.

The well-intentioned practitioner would also gain by greater familiarity with the statutory technicalities governing medicine. A lapse from strict legality may prove both expensive and embarrassing, subjecting conscientious men to a suspicion of moral obliquity which they do not deserve.

Copper in Diabetes

It has been shown, both by animal experiments and by observations on humans, that copper, when administered orally, has a definite influence upon carbohydrate metabolism.¹ Subjects who have a normal blood sugar content show but slight change in the blood sugar following the ingestion of copper. However, an attempt to produce a hyperglycemia by adrenalin or by a dextrose tolerance test is greatly inhibited by copper.

Schnetz observed that in diabetic patients, the daily administration of ten to twenty mgs of copper sulphate over a period of months produced a marked improvement in the general metabolism. Be-

sides a distinct betterment of the general condition, a reduction in the diabetic hyperglycemia and glycosuria was noted. The insulin requirement was distinctly lowered. In severe diabetics a reduction as high as fifty-five units from the daily dose is reported and in patients with mild diabetes, the copper medication can in some instances completely replace insulin. Any interruption of the copper therapy results in a prompt exacerbation of the diabetic state.

Since copper sulphate in the doses mentioned above is well-tolerated by the body, this form of therapy recommends itself as an additional means of controlling hyperglycemia. In addition to lessening the amount of insulin needed, it is a more pleasant form of medication.

Sulphanilamide Treatment of Gonorrhea

The spectacular results reported in the treatment of gonorrhea in the male by the oral administration of sulphanilamide lead one to believe that finally a satisfactory means for the cure of this disease has been found.¹ Both acute and chronic cases respond equally well. The dosage recommended is forty grains daily until the clinical criteria for cure are attained. These include the disappearance of organisms and microscopic pus from the urine and prostate gland, the absence of all symptoms, and the inability to produce a recurrence.

Reuter noted, in the two glass urine test, a pus-free first glass twenty-four hours after treatment with sulphanilamide was started. Within from five to ten days the urine was entirely clear. In no instance was the infection aggravated by the drug. The side effects of this chemical are weakness, fatigue, sensitiveness of the skin over the legs and occasional tingling sensation in the toes. These are held to be of prognostic value since those who complained of these symptoms early responded best to the treatment.

¹ Schnetz H. *Klinische Wochenschr* 16 664 1937

¹ Reuter F. A. *Med Ann Dist Col* 6 117 1937

The one danger of this form of therapy is that the drug can be purchased over the counter in all drug stores. The large doses required for the cure of gonorrhea necessitate supervision of a physician if untoward effects are to be avoided. Severe toxic reactions have been reported and many will undoubtedly occur if self-medication is encouraged by the wide publicity this drug has had. It should be included among the others which are not allowed to be dispensed except upon the receipt of a doctor's prescription.

CURRENT COMMENT

"A STATISTICAL REFERENCE SHOWS a close relationship between the number of physicians and the number of policemen in the country, there being about 132,000 of each. Apparently the same man power is required to make people behave as to make them get well."—*Printer's Ink*

"THE REPLACEMENT OF NURSE-ANESTHETISTS by M D-anesthetists has been deemed advisable in numerous hospitals. It has also been deemed impracticable.

"We can't simply fire these nurses," staff physicians say. "They've been loyal employees of the hospital for years, and their work has always been satisfactory. Although we'd like to make the changeover, it's impossible."

"Let such men take a tip from one of Philadelphia's leading hospitals. There, a completely simple but nevertheless practical solution has been applied. Instead of discharging its nurse-anesthetists all at once

the hospital is following the policy of merely replacing them by physicians wherever the nurses retire or leave voluntarily.

"This policy creates no friction. No one is thrown out of a job. Yet professional anesthesia is gradually beginning to take its place in the hospital, thereby assuring better service for patients and an opportunity for young physicians to specialize in this branch of medicine."—*Medical Economics*, July 1937

"AS AN OUTCOME OF RESEARCH during the past few years and a knowledge of the biological laws governing human life, we are on the high road to bettering conditions of today and paving the way for a vast improvement in the life of the next generation. Scientific nutrition will play a prominent part in this campaign. A well fed population is a contented population and an essential asset of a nation."—The editors of *Medical Record* of June 16, on the subject of "Nutrition"

"THE AVERAGE DOCTOR is usually too busy attending to his business to spare time, strength or postage to discover what the laity thinks about him and his profession and the way in which it is run.

"But this is a day of lay espionage of the professions, especially of the medical profession. The American Foundation Studies in Government (a group of patriotic and high-minded persons that calls this report "American Medicine or Expert Testimony Out of Court") was undoubtedly motivated by the sincerest and most serious of aspirations when it set out to garner these sheaves of information."—Further editorial reverberations on an excellent piece of work, from the editors of the *Illinois Medical Journal* of recent date.

TO MAKE ILLNESS DELIGHTFUL

To those medical patients who squirm and send their visages through violent contortions every time they take some bitter prescription, modern medicine today offers a pleasanter future.

The explanation, Dr. Bernard Fantus told more than 1000 Western New York physicians at the third annual clinical day of the Alumni association of the University of Buffalo School of Medicine in Hotel Statler, lies in "disguised medicines."

Thus prescriptions of the future—and a beginning in them is being made now—will have, not sour or bitter or nauseating

tastes, but the tastes of licorice, raspberry, cherry and some new, pleasantly sweet preparations.

In this way, modern medicine hopes, not only to ease the taking of prescriptions, but to induce the public not to waste its money on proprietary preparations of unknown content, many of which are more expensive, too, than legitimate medical concoctions.

"Ancient medicine was nasty medicine; the medicine of the future will be pleasant," emphasized Dr. Fantus, who is professor of therapeutics in the University of Illinois School of Medicine.

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private" All communications must carry the writer's full name and address which will be omitted on publication if desired Anonymous letters will be disregarded]

531 Bronx River Road
Yonkers

To the Editor

I should like to congratulate our State society as well as the society of Westchester County on the stand of free choice of physician for indigent patients at an ethical fee paid by the government. I believe the A.M.A. has taken the same position

Now that we have had our say, I can almost hear the politician say, sneeringly, "So what?" What are we going to do about it? To force the politician to act for the welfare of the public, we have to convince the public that it must act in its own behalf, and the only way to awaken the public is by means of publicity—show the people, particularly the indigent, the importance of a patient in being able to secure his own physician at an ethical fee. They still vote. Make public officials, especially the mayors, commit themselves on their stand. In local elections, the support of citizen organizations, non-partisan and partisan, is important in putting our ideal across—articles in the newspapers and speeches by prominent citizens before civic organizations will help considerably. To present it to the nation as a whole, publicity on the radio, (speeches and sketches) and in popular magazines, is essential. Here we could get the financial support of such ethical firms as Hoffman-La Roche, Parke, Davis & Co and others, who realize that the welfare of the independent physician is associated with their own. Local medical societies and the huge financial resources of the A.M.A. can be utilized for this vital purpose. Winning this fight will save the life of the medical profession as we have known it, and losing it will result in an opening wedge for state medicine, where the physician will be enslaved to the will of the mercenary politician. We must act now to stem this vicious movement.

Now, what can we do about cleaning our own house? Should we permit physicians who insist on working at a cut-throat salary on a contract to the city, to remain undisciplined even after due warning from their society? The medical society has a "big stick," and like Theodore Roosevelt, it should speak softly, but use the big stick

where necessary. If such physicians find that they are excluded from the recognized hospitals and medical societies, they would change their unethical behavior

Yours very truly

Julv 2, 1937

E H ALLAR, M D

Virgin Islands Seek Physician

32 Pearl Street
New York City

Medical Society of State of New York,
2 East 103 Street,
New York, N Y

Gentlemen

We have received a letter from our correspondents in St. Thomas, Virgin Islands of the U S A, Messrs The West Indian Company, Ltd, in which they inform us that there, in all probability, would be an excellent chance for a young doctor to work up a profitable practice on St. Thomas

It has occurred to us that this might be of interest to some young doctor, and that it might be feasible for you to bring this chance to the attention of the medical profession through one of your regular publications. We know that The West Indian Company, Ltd, will be glad to furnish all possible information in regard to conditions on St. Thomas to anyone who might apply for such information

We shall be glad to hear from you whether you think that the above plan is possible

Yours very truly,
GUDNA AMERICA LINE INC,
Per RASMUS HANSEN

July 6, 1937

Pan American Medical Association

745 Fifth Ave
New York City

To the Editor

The Executive Committee of the Board of Trustees takes great pleasure in announcing that the "Queen of Bermuda" has been chartered for the Seventh Cruise-Congress. As you know, we had this boat for the last Cruise and it proved to be most ideal for our purposes. Following is the itinerary

Leave New York	January 15, 1938
Arrive Havana	January 18
(4½ days and 5 nights in Havana)	
Leave Havana	January 23
Arrive Port au Prince	January 24
Leave Port au Prince	January 24
Arrive Trujillo City (Santo Domingo)	January 26
Leave Trujillo City (Santo Domingo)	January 26
Arrive San Juan (Puerto Rico)	January 27
Leave San Juan (Puerto Rico)	January 27
Arrive New York	January 31

The main part of the Congress will be held in Havana. There will be three days of scientific sessions with operative clinics. These will be divided into sections for the various specialties. This year we have four new sections: Tuberculosis, gastroenterology, dentistry, and industrial medicine. Meetings will be arranged with our medical colleagues at the other ports of call.

The Hotel Savoy-Plaza in New York and the National Hotel in Havana will be our official hotels.

Travelways, Inc., have chartered the "Queen of Bermuda" on behalf of our Association and will act as our official Travel Agents. As this Congress promises to be the most successful ever held by the Association, it would be highly advisable to book reservations as early as possible with Travelways, Inc., who will make every effort to satisfy the requirements of the members of the Congress. Applications for reservations should be addressed to the Pan American Medical Association at 745 Fifth Avenue, New York City.

The program committee would be pleased to receive applications for the presentation of scientific contributions.

Cordially yours,

JOSEPH JORDAN ELLER, M.D.
Director General

July 3, 1937

THE RABIES MENACE

The alarming situation which prevailed throughout the country last year in relation to dog-bites and rabies appears even more menacing this summer. During the recent warm days, according to newspaper reports, more than a hundred persons have been bitten by dogs daily in the city of Chicago alone. This represents more than a fifty per cent increase over the number of bites during the similar period of 1936. More heads of suspected animals have been examined, and the number found positive for rabies has also increased more than fifty per cent.

Although conditions in Chicago may be more serious than those elsewhere, the situation is also actually or potentially critical in all other districts where dogs, especially strays, are numerous, observes the *Journal of the A M A*. As judged from reports from all over the world, rabies is generally far from quiescent.

The extent to which informed sources recognize the great danger of rabies is illustrated by the fact that the Rockefeller Foundation began a program of laboratory and field work on rabies in 1936. This disease, according to the foundation report, has become increasingly menacing, particularly in some of the Southern states. With

this recognition that some regions are more threatened than others, it must also be emphasized that no areas where possible carriers of rabies are present can be considered exempt. The Rockefeller report also states that there has been little research on this disease since Pasteur's time. A quicker and more positive test for rabies in animals and a less cumbersome method of vaccination are badly needed.

All these facts point to the conclusion that immediate and coordinated action is necessary. Rabies is a disease in which individual efforts are relatively helpless unless aided by the full machinery of social organization. The press, public health officials, the police and physicians—in both their individual and their official capacities—should take steps to combat this threatening situation at once if a considerable number of unnecessary deaths is to be avoided. In the face of the now existing information as to the frequency and rapid spread of rabies among animals, it seems criminal to postpone action until the disease is identified in human beings. Because rabies is primarily a disease of dogs, it seems likely that this campaign will have the whole-hearted support of all the animal humane societies.

Presidential Address

The Partnership Idea in Public Health

CHARLES H. GOODRICH, M.D., Brooklyn
President, Medical Society of the State of New York

In the Army we were taught by old timers to shift responsibility to some one else. (They tell us that this is fashionable in all Government Departments—except Health Departments) This teaching to “pass” what they call “the Buck”—“went against” what they call “the grain.” We had long practiced the habit of grasping red hot responsibilities with our bare hands or frank brains and receiving painful burns of both regions. Others then carried forward the idea with the help of asbestos gloves and well-insulated brains and at least we had the satisfaction of seeing fruition established and had been content. However the army way is easier and more peaceful and we have been educated.

The day has come however when we have a heated responsibility thrust into our hands, and we must grasp it without gloves or insulation. We are confident that we shall not even be scorched for we are among friends whose objectives are like ours.

First We are here to propose and analyze the slogan “Every physician a Deputy Health Officer,” and to discuss with you how to bring it about.

In a recent address at Rochester we said “The license to practice medicine implies greater obligation to the public than diagnosis of disease and treating patients for a consideration. What implications challenge our special interest during the coming year?”

One of these “Although already initiated by your officers and committees, active individual cooperation with Health Departments and Health Officers seems indicated. In some large counties the Public Health Committees accomplish wonders. More wonders can be done by general membership insistence that all are live participants in the health projects of the community. The public expects this. Commissioners hope for it. Law implies our interest and cooperation. We are fit. There is much to be done. Every member can do his share in his own community. Every county society is urged to adequately enthuse its membership. The slogan “Every physician a Deputy Health Officer.”

That this is not actually and fully so is due to a multitude of causes. Mainly it appears to be because, aside from their essential monitor services (vital records), the central thought of Health Departments has been prevention while the practitioner's mind is concentrated upon diagnosis and treatment of disease. This despite universal individual interest in both. Recently in this State two cooperative efforts in “disease control” have been undertaken in pneumonia and syphilis. In these efforts many physicians have been engaged, those officially charged with duties by the State Society and those whose services have been required to complete the program. The results thus far in pneumonia control are impressive and will grow in importance with continued cooperation. Concerning this the State Medical Society has registered universal enthusiasm. Thus it is easy to integrate in health service the officials of the State Medical Society and those practitioners who have an interest in part-time employment in a specific project. Our future problem is how to engage the interest of all physicians in health work regardless of or in consideration of some form or degree of compensation. Here we meet with difficulties concerning which we must be brutally frank. If these are not disposed of in some way we shall fail.

1 The taxpayers of a community or state determine how much it will pay for health service. This provision varies widely so our results are variable. “Scrimping” of these funds as compared with other social appropriations is often charged. Adequate appropriations for complete service are lacking in the majority. Perhaps New York City is the outstanding example of lack of financial appropriations for its extraordinary health needs, if we except the appropriations for new Health Center Buildings. What is needed is greater appropriations for personal services. (We interpolate that present results indicate remarkable efficiency in its Health Department. Moreover we should not forget the eighty-six voluntary health agencies who contribute to this result.) Thus the representatives of the taxpayers must be afforded new and modern intelligence regarding the needs.

2 Citizenry, or its rank and file, regard

*Address delivered at the Annual Conference of Health Officers and Public Health Nurses,
Saratoga Springs, June 22, 1937*

specific disease prevention as a "negative accomplishment." This is not dramatized in the public consciousness" (Parran). Physicians in personal contacts as well as Departments in public contacts, should stage these dramas early and often.

3 The general practitioner of medicine has been so forgetful of his own pecuniary gain for centuries that unfair advantage of his consideration of others has been taken by institutions, government agencies, and the public in general until now the rank and file with increased costs, their "backs to the wall" are compelled to ask of any invitation to participate in anything "What do I get?" In this connection we quote the classical declaration of Dr Frederic E. Elliott, "Every community has a vital stake and resource in the prosperity of its physicians." They must be thinking of their great work unworried by financial embarrassment.

Thus while keeping these three difficulties in mind we raise the question "How can every physician become a deputy health officer?"

Henry Vaughn thought this could best be accomplished by closing clinics and sending preventive specific prophylactic measures to the physicians' offices, and that when all results were totalled and balanced greater prevention could be accomplished at reduced cost to taxpayers—and he proved his claim regarding diphtheria. That this could be done in any community with Vaughn's ability, administrative and pecuniary backing and the professional talent available, would seem a reasonable proposal. However, with most competent department heads, with free hands, and possessing peerless professional personnel, the City of Yonkers in Westchester County has just given up an anti-diphtheria campaign using physicians' offices, as a failure, and clinics are to be reopened. Also in Northern Westchester County the plan has given inadequate results. Now back to Detroit. Perhaps the most adroit condition in the Vaughn plan was the agreement arranged with the Wayne County Medical Society that the participants in this plan should attend lectures by health officers twice monthly and learn something of the technic as well as the spirit of Health Officers. This was not a feature in Westchester County. We hold that that technic and that spirit are essential to majority participation and success.

The outstanding cause of criticism of the Vaughn plan has been the extra expense with which it is charged. The recorded results of the first cooperative effort (diphtheria) clearly demonstrated the total economy to the City, although actual compensation to workers was greater than under the clinic plan.

In a recent presentation of Detroit work in "Intensive Case finding in Tuberculosis," delivered at the Atlantic City meeting of the American Medical Association, Vaughn states "Health Departments have been prone to accept crumbs from the monies spent for social betterment." He proceeded to demonstrate the wisdom of spending a considerable sum for the purpose of saving a much greater amount. He cited as an example of wasteful expenditure in one city an annual appropriation of two and one half million dollars to hospitalize tuberculosis cases. Twenty-five hundred beds are provided, equal to more than twice the annual number of deaths. He contends that with intensive early case finding (which costs somewhat more than the usual discovery of cases in later stages of disease) many lives and great sums of money could be saved for communities. In the instance he cites he suggests that "much if not all of the money being spent for hospitalization should never be spent. There should be no cause for its expenditure. Finding the early case will reduce hospital load and expense and save money. The diversion of a fraction of this saving in hospital bills to adequate case finding facilities would be good economy." He details the added personnel required in Detroit, including forty-five new public health nurses ("the total number of Health Department nurses on June 1, 1937 is 430"). His program is more comprehensive than the earlier undertaking.

As is generally recognized the practicing physicians of this state consider the Detroit plan of health work the best thus far advanced. Our impression is that its principles have yet to be accepted *in toto* by many of the practically experienced health workers. We devoutly believe in evolution—not revolution—in matters of great importance. (This also is an outstanding feature of the Detroit efforts in specific prevention.)

Particularly in view of the latest developments, our first practical suggestion for attempting further integration of the general practitioner of the State in health work is that the Health Department of the State and the State Medical Society make a joint study of the Vaughn Plan at the arena in Detroit.

Our second suggestion is that the next recommendation come for the other arm of Medical Service, the Health Department. Designating "arms" of the service calls to mind the time (in 1920) when the late James M. Barrie was crippled by neuritis in his right arm which was practically paralyzed. He always penned his plays laboriously in fine script never using type-

writer or dictation. Soon after this shocking disability came he astonished his friends by quickly training himself to write with his left hand. Late in the same year he wrote "Mary Rose" his favorite play. When some one observed that "Mary Rose" was different from his other plays Barrie said "It is surprising what different ideas come down one's left arm than down the right one."

So the Department and the practitioners are the two arms of the service. It makes no difference which is right and which is left for both have speech centers. Through us both public health enterprises can be ambidextrous.

The second item in our presentation concerns our conception of Preventive Medicine in general in addition to specific preventive measures. From the aforementioned address to the House of Delegates, which was unanimously approved by that body we again quote

Our profession is vocal concerning preventive medicine. Practically we have produced a certain few specific immunizing measures and have conducted campaigns to popularize them or to provide for required adoption by community or state. This is specific preventive medicine. Otherwise preventive medicine is a field so vast and so promising as to fascinate dreamer and worker. Ample reservoirs of information are reposing in our great libraries. What percentage of these are practically utilized? In what degree is the profession informed? How much have we taught our public?

When we say preventive medicine we mean all sorts of measures and provisions for preserving life and health. We include sanitation, hygiene, exercise, diet and drinkables, housing, ventilation, lighting, heating and in general, the conduct of homes, schools, and institutions. We think of industrial diseases and injuries, street injuries, fire injuries, and accidents in sports. Also upper respiratory infections, epidemic and endemic, precancerous irritations, focal infections of teeth and tonsils and their relations to arthritis, and various infections of the respiratory and gastrointestinal tract. The degenerative diseases are increasing their toll of devoted tense workers especially among our own kind. Prevention of asphyxial deaths (including anesthesia) is an important item. Companion with this are the varying degrees of anoxemia suffered by many unconsciously and unnecessarily. We think of maternal welfare and the care of the healthy child. (In this we have made an appreciable start.) Diseases of animals must be considered especially as transmissible to man. All of the infectious diseases can be

reduced to a minimum, notably tuberculosis and syphilis. There is the physical welfare of the blind and deaf. We think of the mentally deficient child and the too precocious child. Personal hygiene and mental hygiene are significant factors in complex living. Electricity including the x-ray menaces human safety. Also important is the hygiene of ports and ships that arrive and depart. Atmospheric pollution by smoke, dust, sand, carbon monoxide, and gasses innumerable should be controlled. Moreover there are those numberless instances of acute infections and minor or major injuries in which prompt treatment in the hours of inception or reception may be realistic preventive medicine. Such treatment may prevent serious or critical illness, loss of time, earning power, and perhaps function, for the patient. As a corollary the physician would have many easy tasks instead of a few huge heartbreakers.

Preventive as well as curative medicine can be advanced by an increased percentage of recorded postmortem examinations. This may call for elaborate endeavor along special lines.

This is sketched all too incompletely the field of preventive medicine. Much of it can be cultivated for the individual by the masterly complete periodic health examination. This is an accepted procedure in theory but with a low percentage in practice. If universally sought and practiced it would require the patient devotion of much time and great skill. In that day we must be ready with schedules, record blanks and equipment—material and mental, to do thorough work. When largely demanded by the people many specialists in this line will be needed. Therefore

We recommend that during the coming year in county and district branch meetings the subject of preventive medicine be actively presented, discussed, and that its practice by the profession be encouraged in every possible way, and

We recommend that contributions on preventive medicine to the STATE JOURNAL be offered by the membership and sought by the Journal Management Committee, and

We recommend that whenever and wherever possible lay audiences throughout the state be provided with addresses or lectures on preventive medicine, such provisions to be made by county societies, District Branch officers, by the Public Relations Bureau of the Society, or by concerted action.

In connection with this last recommendation, may we remind you that preventive medicine can arrive at its goal only when an eager enlightened public apply for it.

They must be convinced of the advantages obtainable

No idealistic enterprise is free from difficulty. As to preventive medicine, in its broadest sense, the public has little interest, little appreciation of resources at our command, and no enthusiasm for demanding such service. The attempts to establish periodic health examinations as a preventive measure produced feeble public response. There is a persistent disregard of well-known health laws by even the most intelligent persons, often revealed by the physician or observed in current reading. The indifference of the majority of medical practitioners exists because of lack of public demand for the practice of preventive medicine. This we hope to overcome by our own effort through spoken and written word.

There is usually a definite delay in applying the practical knowledge acquired concerning scientific development, what the great Parran has called "a cultural lag." For instance we were scientifically equipped for syphilis more than twenty years ago—and we are only now just beginning the great work.

So we have for some years been scientifically equipped for a masterly program of prevention of injury and disease. Many isolated efforts have been admirable but they need cohesion and general participation to organize results. Moreover real far-sightedness and accuracy of perception are needed.

Through their physicians and nurses, health departments are equipped to spread truths concerning preventive medicine and particularly to emphasize the importance of complete periodic health examinations. The bulk of the detail work must devolve upon

the practicing physicians and we must be more completely prepared for it than heretofore. We believe that hearty cooperation is necessary, entirely possible, and will be cordially welcomed by our membership.

We believe that in this work it is particularly desirable and important to establish invariably cordial cooperative relations in each community. We shall make constant efforts to do this on our part, through the County Medical Societies and District Branches as well as in the administrative organizations. The community cooperation must be vivid personal work, yet personal interests must be forgotten if the public is to be capably served with a complete program.

Consider how unselfishly men of limited spirit and devotion have heretofore labored to establish preventive medicine in its logical position in the realm of medical service. Their discoveries and accomplishments are on record. A broad knowledge concerning needs and methods are at our disposal. Remedial care is only a fractional application of what we know. Preventive medicine is the competent response to many questions which persons, organizations, and governments are asking of us today.

Thus it is that we desire to help you in the details of your health work so that it can be expanded and perfected. We seek your help in popularizing the idea that preventive medicine and surgery can prevent much of disabling and death-dealing pathology. Together we can join hands in forming a protective circle about our citizens—to guard them against threatening circumstances. This will contribute to the solidarity and efficiency of their families and therefore to the welfare of the Empire State.

SUMMER HEALTH BROADCASTS

Station WQXR has arranged a series of summer health talks, to be broadcast each Monday from 3:45 to 4 P.M. under the joint auspices of the Medical Information Bureau of the New York Academy of Medicine and the New York Tuberculosis and Health Association. The first in the series, delivered by Mrs. Edith Collier of the United Parents Association of New York City, was on "Camping from the Viewpoint of the Parent," given on June 7. Other speakers scheduled are Dr. Jesse A. Tolmach, Assistant Attending Dermatologist at the Post-Graduate Hospital of Columbia University, Dr. Eugene F. Traub, Chief of the Skin Clinic,

Skin and Cancer Unit, New York Post-Graduate Hospital, Dr. Louis F. Bishop, Jr., Associate Visiting Physician at Bellevue Hospital, Captain Charles B. Scully, Director of the Life Saving Service, New York Chapter, American Red Cross, and Miss Ethel McGary, Assistant Director, Life Saving Service. In Charge of Women's Programs, New York Chapter, American Red Cross, and former Olympic Champion. The topics include "Good and Bad Effects of Sunshine," "Summer Skin Infections and Irritations," "Why Accidents?," "Learning to Swim" and "Swimming as a Sport for Women."

Public Health News

School Medical Leadership and Education of the Public

RICHARD W. WEISER, M.D., *Kenmore*
President, N. Y. State Assn. of School Physicians

At this time when State Medicine is occupying the limelight in the practice of medicine of the future, we physicians are waking up to the fact that education of the public to its evils is the only solution to the problem. The opportunities for that education have been with us in abundance at all times but we have failed to take advantage of them until the roar of the flood waters is almost at our back doors. We have been warned to set our affairs in correct order at home before attempting to straighten out the muddle that confronts others, but have we?

This article is only going to touch upon one phase of medical leadership and that is medical administration and supervision in the Public Schools of the United States. Medical leadership in colleges and universities has been on a much higher plane than that in the public schools because the leadership has been on a full time basis instead of a part time basis as is the case in most of the Public Schools.

I am not placing an indictment against all part time school physicians because in many small communities part time service is entirely sufficient, and full time service would be economically unsound. But part time service in most of these communities does not perform the service it should. Yearly examination of pupils at twenty-five or fifty cents a head makes up all the medical leadership the school physician has on his school. When his examinations are ended what few ideals of health education and leadership in the school that he was able to get across at the time of his examinations leaves with him. Teachers, principals, supervisors, and superintendents are dependent upon textbook authorities for their health education principles.

Theoretically most of these principles are sound but nine times out of ten they do not take care of the immediate health problems of that community. The physician of that community who is cognizant of the changing health conditions and who could be a factor in working out a health education program that would utilize local health problems and communicable disease out-

breaks for education of the public and pupils in the school is rarely consulted because his contact with the school only lasted while he was examining the school children at the beginning of the year.

The solution to this problem is to hire the physician on a school year basis at an adequate salary so that he can spend at least two hours daily at his school throughout the year. The additional time after physical examination of the pupils would be devoted to examination of pupils returning after a communicable disease, supervision and instruction of teachers in daily room inspections, recommendation to principle for exclusion from school of pupils with communicable skin eruptions or suspicious symptoms of a communicable disease, recommendation for gym excuses or curtailed physical activities, inspections of the sanitation of the plant, lectures and talks to the pupils on pertinent and timely health subjects, supervision and direction of health education projects, lectures to teachers on communicable disease prevention and first aid, examination of teachers and employees before starting duties, and a host of other items that would arise from time to time. All of this work would be entirely limited to education and preventive medicine. Diagnosis and treatment would not be permitted. Provisions for vaccination and diphtheria inoculations would be the responsibility of the parent and the family physician. Under this type of part time school medical leadership the pupils and parents would both be educated in the latest and best health procedures. My superintendent of schools has always adhered to the principle that if the pupil is properly educated, the pupil in turn will educate his parent to everything that is new and worth while. My experience of four years of full time school medical leadership has taught me the same principle.

Now let us consider the larger school districts where the school population is over 3000. Employment of part time physicians on the basis that I have just finished illustrating in sufficient numbers to take care of the pupils to not more than

1000 pupils per part time physician would be practicable. But for greater service and efficiency a full time physician for each 3000 students who would not be allowed to do any private practice on the side would be of greater value to the community and physicians. Whenever there is a part time position open in a community most of the physicians apply for the position with result that often political favoritism appears and ill-feeling abounds among the physicians for a position that only one with the best qualifications should have.

Some of the qualifications that should be required in a school physician are ability for administration and supervision, tact and a pleasant personality, ability to handle children, special knowledge of pediatrics or orthopedics, or eye, ear, and throat, ability and desire to teach and lecture, and plenty of common sense. The right type of school medical leadership can only be gained by medical men who make a specialty of school medical administration and supervision. With their opportunities for educating the public they can be a valuable force in correcting the many abuses present where part time service is unsatisfactory. They can give their full time to a service of educating the pupils and parents in the latest and time proved health facts as well as showing them the importance the family physician can play through early diagnosis and treatment and the use of accepted immunization procedures.

Full time medical leadership in the Public Schools of this nation is only in its infancy. The State of New York with one of the finest educational systems in the United States has less than 100 full time medical men in the Public School system. We need qualified physicians who are willing to prepare themselves for this field of work. There are many lay individuals in the Public Schools of the nation who have the title of Supervisor of Health Education. If we as physicians do not take over the leadership and direction of school health programs then we can expect the lay individual who spends a postgraduate year in Health Education subjects to direct the school health program. Are we going to allow lay leadership of school health programs or are we going to recognize that there is a young specialty in our midst that needs the support and encouragement of all the physicians of the nation? That specialty is "Fulltime School Medical Supervision and Administration specializing only in Preventive and Educational Med-

icine and absolutely hands off Diagnosis and Treatment."

Too many physicians fear that any full time medical position is just one step closer to state medicine. They are still asleep to the fact that we in full time public health service have the opportunities and time to educate the public in the right type of medical practice and health education principles whereas the busy practitioner of medicine or the specialist does not have the time nor opportunities afforded us. If we are given the wholehearted support of the entire medical profession and medical men are placed in full time positions where they can educate the public then the fear of state medicine would not be hammering at our doors.

Do all you can *now* to promote full time public school medical leadership wherever the school enrollment is over 3000.

As President of the New York State Association of School Physicians, I know I voice the opinions of our members on the subject of school medical leadership. We must not allow ourselves to be crowded out of this leadership by lay health educators. We need thousands of physicians throughout the nation to take up this important work on a full time basis. Nonmedical groups are specializing in optometry, chiropody, and other branches, all because we did not recognize the need for more members of our own profession specializing in these fields of work for which the public was clamoring.

If after reading this article and you would be interested and feel that you have some or all of the qualifications that are necessary to make a good medical supervisor then write to the Departments of Education in your own state and find out what special qualifications they require for you to take a school position as a licensed physician. If they have no special qualifications except the ones you already have then write to your nearest university and find out what courses they have that would help you to become a good school medical supervisor. A good course in Health Education Methods is usually a basic requirement and an excellent course to start with. Extension courses in Public Health are very helpful to prepare a physician for school medical leadership. Leading universities usually have a large variety of these courses that run from four to six weeks during the summer.

In closing let me point out to you again that full time public school medical leadership is strongly needed throughout the United States. With its foundations laid on preventive and educational medicine it

will never invade the field of state medicine which provides for diagnosis and treatment.

Full time public school medical leadership can be one of the strongest factors in helping to educate the public to the importance of early diagnosis, treat-

ment and immunizations by the family physician and specialist, as well as to educate them to the fact that these are all personal services for which they alone are responsible and not the school or state. Lend us your support now by adding more of your members to our ranks

Prognostic Significance of the Tuberculin Reaction

The diagnostic value of the Von Pirquet cutaneous reaction has long been unquestioned. More recently much interest has been aroused in its possible prognostic significance through studies of variations in individual sensitiveness shown by delicate methods of testing. Dr Watson's conclusion is that pronounced sensitiveness to tuberculin is an advantage to its possessor whether he has latent or clinically evident disease. This is because of a satisfactory supply of an activating substance in the blood serum which he calls "ergine," which breaks down circulating tuberculin into an irritant body producing toxic phenomena and some other unknown substance or substances.

Ninety-six cases of clinical tuberculosis were studied from 1925 to 1933. Reactions to the tuberculin test were minutely observed and the cases were classified as (1) those where a strongly positive reaction was obtained, (2) those where a strongly positive reaction was not obtained. Observation of these cases six months later showed that fifty-five per cent of those who had not reacted strongly were prognostically bad, while only seventeen per cent of those who had reacted strongly were in a like condition. Of the former eighteen per cent had died, of the latter only four per cent.

In 1933 the survival rate for the whole group was fifty-three per cent, of the strongly positive group fifty-six per cent, of those not strongly positive forty-two per cent, or a spread of fourteen per cent in favor of the strongly positive group. Selecting only sputum positive cases from the whole group results were similar but with a lower differential, eight per cent.

Further evidence of the prognostic significance of the strongly positive reaction may be deduced from the fact that such pronounced reactions are usual in cases of extra-pulmonary surgical tuberculosis and that there is little tendency for these localized lesions to become generalized.

Again there may be cited the accepted vulnerability to tuberculosis found in the "virgin soil" of primitive races as illustrated by the severity of the disease among American Indians or in Professor Cummins' studies among the natives of South Africa. Dr Cummins speaks of the "natural liability" to tuberculosis infection associated with "virgin soil" as a "dangerous defile at the very start of the road toward immunity."

It is a familiar experience to find a reduc-

tion in strength of the tuberculin test or its disappearance during the acute stage of a concurrent infectious disease. This fading away of the reaction may be evident in measles, typhoid, influenza, acute rheumatism, pneumonia, smallpox vaccination, chickenpox and whooping cough. Realizing the frequency with which some of these appear to stimulate tuberculous activity it is reasonable to suppose that the disappearance of the skin reaction represents an embarrassment of the organism in its struggle against an existing tuberculous infection.

Professor Heimbeck's experience and similar observations of Spehl and Thys in Brussels in the study of tuberculosis morbidity among nurses are introduced as further indication of a certain prognostic significance to be drawn from variations in intensity of skin reactions in adults.

The Author's Hypothesis of the Significance and Meaning of the Tuberculo-Cutaneous Reactions

Before drawing final conclusions from these and other observations the question of the mechanism of the tuberculin reaction itself confronts us. The following experiment of Calmette is illuminating. When tuberculin is introduced into the conjunctival sac of a non-tuberculous subject no reaction takes place. If blood serum from an actively tuberculous patient is introduced similarly in another non-tuberculous subject there is still no reaction. If however tuberculin be mixed *in vitro* with blood serum from a tuberculous patient and the tube kept for a given time at a given temperature and then injected into the conjunctival sac of a known non-tuberculous subject, a prompt reaction takes place.

From this it may be concluded that Tuberculin *per se* does not cause this reaction and serum from a tuberculosis patient does not cause it. There must, therefore, be

a substance in the serum of the tuberculous patient which acts on the tuberculin to liberate something causing the toxic and irritant phenomena in the eye

Living tubercle bacilli flourishing in a patient's body produce a substance resembling tuberculin. This comes in contact with the blood serum of the infected individual and the test tube experiment above described is repeated. The organism, as in other bacillary invasions, should now give a protective response. A substance appears in the serum which so acts on the tuberculin as to disintegrate it into (a) an irritant body producing toxic phenomena, and (b) some other unknown substance or substances. The author suggests the name "ergine" for this substance and assumes that the action of "ergine" on tuberculin is a stage in the elimination of tuberculin from the infected organism. Since constitutional and focal reactions terminate favorably in a large number of tuberculous cases, it is also reasonable to assume that the toxic body (a) is combated by the elaboration of some anti-toxic factor which disposes of and eliminates the products of the action of the "ergine" on the tuberculin. Furthermore, it is again reasonable to assume that the more sensitive the organism is to tuberculin, i.e. the smaller the concentration of tuberculin required to give a response of "ergine," the more quickly will the tuberculin, collected or elaborated in that body, be disintegrated and disposed of.

Calmette found that if a guinea-pig inoculated with living tubercle bacilli, was given gradually increasing doses of tuberculin (1) it became increasingly difficult to produce the reaction phenomena in the animals under treatment with tuberculin. However, such pigs always reacted to massive doses (2). The serum of these treated animals contained nothing capable of neutralizing tuberculin *in vitro*, nor of passively immunizing other guinea-pigs against tuberculin (3). The power of absorbing large doses of tuberculin without reaction was soon lost by the animals if the injections were suspended (4). The lesions

of these animals did not tend to progress more slowly than the lesions of the infected but untreated animals, but tended to progress more rapidly than in the controls.

Conclusion

There does not seem to be, at least in the guinea-pig, any relation between the power to absorb tuberculin without reaction and the power to successfully combat tuberculin infection, i.e., tuberculin per se is harmful even before the "ergine" has acted on it to produce toxic phenomena and further in the guinea pig at least even more harmful than the "erginised" tuberculin.

The process of elimination of tuberculin consists of (a) a response of "ergine" immediately followed by more or less reaction phenomena, (b) elimination at a varying rate of the results of the action of the "ergine." Organisms with quick and efficient "ergine" response dispose of their tuberculin piecemeal, obviating toxin saturation. Organisms with a slow or late "ergine" response permit the accumulation of tuberculin before "ergine" appears and functions with the resulting production of sudden large volumes of toxin.

One is now in a position to state the following hypothesis. Since toxin saturation of tissues is undesirable, since accumulation of tuberculin in the tissues is undesirable, and since the evolution and action of an "ergine" is an essential factor in the prevention of both, then acute sensitiveness to the presence of tuberculin in the tissues leading to "ergine" formation and action before large amounts of tuberculin have accumulated tends to facilitate the elimination of the latter and prevent toxin saturation of the tissues, i.e., *sensitiveness to tuberculin is of advantage to the infected organism.*

The power to give a strongly positive Von Pirquet reaction is direct evidence of such sensitiveness.

Reference

Prognostic Significance of the Von Pirquet Cutaneous Reaction in Adults. Wm. G. Watson, M.D. *Ch. B. Tubercle* March 1937.

A TIMELY WARNING

High pressure salesmen of x-ray and radiograph outfits have flooded the country with equipment which is sold for reasons of greed rather than health. Dr. Frederic E. Elhott of Brooklyn told the section on radiology at the State Medical Society convention in Rochester. He said

"Literally thousands of fluoroscopes and bedside units have been installed and the overcredulous doctors have undertaken to reap the harvest. But the poor doctor is left to a sorrowful realization that the purchase of an x-ray generating apparatus is the smallest item in the equipment."

Medical News

Chautauqua County

DR. GEORGE EDWARD SMITH, of Dunkirk, who died on June 18, was a former president of the Chautauqua County Medical Society. He had practiced in the county 51 years.

Columbia County

THE WOMAN'S AUXILIARY to the Columbia County Medical Society held a picnic on lower Rhoda Lake on June 18. The Auxiliary also held a luncheon meeting on June 3 at the Columbia Country Club. Mrs. F. L. Sullivan, of Scotia, gave an interesting resume of the state auxiliary meeting at Rochester. She reported a total of 900 members in the state, and thirteen counties organized. Only six per cent of the doctors' wives are members, "which shows that we still have large fields to invade." The next regular meeting of the Auxiliary is slated for October.

Cortland County

DR. ANTON W. SOHRWEIDE, dermatologist, of Syracuse and Ithaca and associated with the medical school of Syracuse University, was the main speaker at a meeting of the Cortland County Medical Society on June 18 at the library auditorium. The topic was "Common Skin Diseases of Interest to the General Practitioner."

Dutchess County

DR. LONDON H. THATCHER captured low net honors from a large field in the County Medical Society tournament at the Millbrook Golf and Tennis Club on June 9. Turning in rounds of 46 and 47 for a gross of 93, Thatcher was aided by a 27 handicap for a 66. Dr. Gordon MacKenzie had a 69 net for second with 36-37-73-4-69, while Dr. Maxwell Gosse was third with 79 having 48-51-99-29-70 and Dr. Joseph Cumming next with a 71 net, having 48-53-101-30-71. Dr. John R. Ross finished fifth with a 76. Dr. Gordon MacKenzie captured low gross with his 73. Dr. W. Hayes had second low gross with an 81, Dr. J. H. Morris had 41-44-85, Dr. Gilbert MacKenzie 43-43-86 and Dr. John F. Rogers 46-42-88.

Franklin County

THE SEMI-ANNUAL MEETING OF THE

Franklin County Medical Society was held at Saranac Lake on June 9.

The morning session consisted of a surgical clinic at Saranac General Hospital conducted by members from Saranac Lake. After lunch the business meeting was held in the John Black Memorial Room with the president, Dr. Daisy H. Van Dyke, presiding. The nominating committee presented the following report on officers for 1938:

President—Dr. Daniel M. Brumfiel

Vice-President—Dr. E. M. Austin

Secretary and treasurer—Dr. D. H. Van Dyke

Censor for 3 years—Dr. J. N. Hayes

Delegate to State Convention—Dr. C. E. Trembley

Alternate—Dr. J. E. White

The slate will be voted on at the fall meeting.

A medical clinic was held and the following papers presented:

"Bilateral Pneumothorax, with illustrative case"—Dr. F. B. Trudeau

"Congenital Atresia of the Rectum"—Dr. A. Gedroiz

"Asthma, due to unusual type of Hypersensitivity"—Dr. S. Wolfson

"Cardio Roentgenographic Study"—Dr. Brumfiel, Dr. Schwartz

"Treatment of Eye Injuries"—Dr. R. Beck

Herkimer County

THAT THE TOWN OF Herkimer will not accept a proposal made several weeks ago by ten physicians to provide medical and surgical treatment for relief clients of the town at a cost of \$12,000 a year was indicated at a meeting of the Town council, when there was read a letter from the executive director of the Emergency Relief bureau which stated that the state would not reimburse any portion of such an expenditure.

The plan of the doctors provided that the ten doctors of the town would care for all medical and surgical patients on relief with five doctors subject to call each month at a fee of \$200 each for the month.

Five doctors would provide this professional service one month then the other five would be back on call. Thus, over a year's period, each doctor would receive \$1,200.

The fact that the state TERA would not

be likely to approve such a plan, on the ground that the fees would be excessive, was disclosed in a letter from William F Jerome, executive director of the Emergency Relief bureau of the county

The only action the council took in the matter was to order Mr Jerome's letter received and filed

At present the doctors are paid fees charged for each individual case handled and the TERA reimburses the town forty per cent of the cost for medical and surgical treatment. The town has the authority to establish any system of paying doctors that it wishes, but the TERA had the authority to grant or decline to grant reimbursement. It was evident that the councilmen were not disposed to accept the doctors' proposal, when such a step would mean that no state reimbursement would be given by the TERA

Hospital bills for welfare clients are not reimbursable and the entire expense must be borne by the town

Madison County

THE WOMEN'S AUXILIARY of the Madison County Medical Society met at Hotel Oneida on June 17. Dinner was served. Reports of delegates who attended the recent state meeting in Rochester were read.

Montgomery County

THE THIRD LECTURE of the postgraduate course of the Medical Society of the County of Montgomery was held in Amsterdam on June 3. Dr James K. Quigley spoke on "Delivery Room Problems." At the fourth lecture, on June 10, Dr Ward Ekas discussed "Prenatal and Postnatal Care." At the fifth lecture, on June 17, Dr Edward C. Hughes spoke on "Toxemias of Pregnancy."

New York County

DR JOSEPH JORDAN ELLER has been appointed Attending Dermatologist to the City Hospital of New York

DR J. EPSTEIN, who in 1932 introduced gold tribromide in the treatment of pertussis, has now introduced gold and sodium tetrabromide in the treatment of epilepsy

Niagara County

A SUMMER RECREATIONAL meeting of the Niagara County Medical society will be held in August, it is announced, but no further business meetings will be held until

September. At that time, Dr Robert S. Dinsmore, of the Cleveland clinic, will address the society

Oneida County

DR H. N. SQUIER scored a hole-in-one at Teugega Country Club on June 17. It was the first ace of the physician's golfing career and is believed to be the first scored in the Rome-Utica area this season

Onondaga County

THE SECOND ANNUAL dinner dance of the Women's Auxiliary to the Onondaga County Medical society was held at the Skaneateles Country club on June 24. The afternoon was devoted to golf, bridge, and water sports. In the evening a skit was presented by a group of members

COUNTRY DOCTORS in Onondaga County will no longer have to make long trips into Syracuse day or night in order to deposit culture tubes and obtain sera if members of the Board of Supervisors approve a scheme already adopted by the county society. The plan will probably call for some sort of collection of specimens in the rural communities as is done daily in all parts of the city

TWO YEARS' TRIAL of the plan calling for an Executive Secretary to handle the affairs of the county society was voted at the May meeting held in the University club. Dr Gordon D. Hoople as chairman read the enthusiastic report.

"From a perusal of the report," says the county society's *Bulletin*, "one would gather that he must be an unusual young man. He should be college bred, but not medicated, young, presentable, a good speaker, able to entertain the ladies, a writer of no mean ability, and able to supervise all society publications—able to serve the society continuously, attend all meetings after arranging them, able to make a good appearance on the radio, contact the newspapers, meet the mayor, keep in with school authorities, welfare groups, social agencies, and so on." The salary mentioned is \$1500.

DR W. CLINTON KELLOGG, one of the oldest medical practitioners of Syracuse at the time of his retirement in March, died on May 31 at his home. He was seventy-seven years old and had practiced in Syracuse fifty-three years

Ontario County

DR JOSEPH GREENE, in charge of chest x-ray work at Strong Memorial Hospital and associate radiologist at Rochester Gen-

eral and Monroe County Hospitals, was the speaker at a monthly meeting of Canandaigua Medical Society on June 10 "Differential Diagnosis of Chest Conditions by X-ray" was the subject. Dr Robert M Ross was host at dinner preceding the business meeting and program

Queens County

THE LONG ISLAND CITY Medical Society held an outing, golf tournament and dinner at the North Hills Country Club, Douglaston, on July 1

Rensselaer County

DR. STEPHEN H CURTIS is the new president of the Alumni Association of Albany Medical College. He was installed at the annual meeting and banquet of the Alumni

Rockland County

A LUNCHEON AND SPECIAL meeting of the Woman's Auxiliary of the Rockland County Medical Society, at which several members of the State board were guests, was held in New City on June 16

Mrs Alexander of Selman, president-elect, gave a report of the Rochester convention. Mrs Albert Barker, Jr, gave a talk on nutrition. Mrs John Bauer, past state president, spoke on the work of the Auxiliary. The Rockland County branch has thirty-six members

Schenectady County

THE WOMAN'S AUXILIARY of the Schenectady County Medical Society held a luncheon meeting on June 15 Mrs John L Bauer, one of the directors of the State Auxiliary, was present. Mrs Isaac Shapiro and Mrs F Leslie Sullivan gave reports on the New York State convention at Rochester

Steuben County

THE STEUBEN COUNTY MEDICAL SOCIETY met at the Veterans' Facility in Bath on June 10 at a luncheon as guests of the staff of Maj J A Barker, chief of the Veterans' hospital. The program included papers on medical problems by Dr Hayward Hopkins and Dr Samuel Kahlstrom, Dr Chester Sturges, Dr Valentine Ujhely, and Dr H Bach of the Veterans' Hospital. Dr Francis Ogg, also of the hospital staff, conducted a clinic

Suffolk County

DR ALBERT H PAYNE, of Riverhead, who

died on June 22, aged sixty-five, had practiced medicine there for thirty-five years, and was a past president of the Suffolk County Medical Society

Tioga County

MEMBERS OF THE TIOGA COUNTY BAR Association and the Medical Society of the County of Tioga, supplemented by guests recruited from the ranks of local undertakers and newspapermen and from the staff of the Robert Packer Hospital at Sayre, on June 2 enjoyed the first annual dinner-meeting of the two organizations. About fifty-five were present. Attorney John T Gorman, of Owego, president of the Tioga County Bar Association, introduced Dr Louis D Hyde, of Owego, president of the Medical Society of the County of Tioga, who stated that the members of his organization were deeply appreciative of the honor and courtesy extended to them in having been asked to play the part of co-hosts and fellow guests on such an occasion. The guest speaker was Dr Rene Brequet, physician in charge and Psychiatrist at the New York State Reformatory at Elmira, who spoke on his work there

Wayne County

A JOINT MEETING AND DINNER of the Wayne County Bar Association and Medical Society was held in Newark on June 22. Dr Floyd Winslow of Rochester, former head of the New York State Medical Society, spoke on "Malpractice." Following the banquet the combined groups visited the new quarters of county medical laboratory at the State School

Westchester County

THE WESTCHESTER COUNTY Medical Society has expressed a further interest in a movement to enlist support for voluntary health examinations, for domestics and other persons as well, says a New Rochelle paper. The society has stated that it will "assist any responsible civic organization which chooses to initiate an educational campaign for voluntary examination of all persons who come into intimate contact with children"

The society has urged that interest be maintained in efforts to have health examinations taken by all persons. The doctors say they are willing to support a workable voluntary plan but they indicate that they, themselves, do not want to take the leadership lest the motive of the effort be misunderstood

Hospital News

Give the New Interns a Hand

HUNDREDS OF MEDICAL SCHOOL graduates are now entering the hospitals of New York State as interns, and it need hardly be said that in the coming weeks and months they will need the friendly counsel and help of the older men on the staffs to "get off on the right foot" and find their places in the hospital routine. A right or wrong start means much.

The hospital and the staff should not permit the intern to just float along and expect him to work out his own salvation, remarks the *Ohio State Medical Journal*. He needs the help and counsel of those with experience and wisdom. He deserves assistance, especially at a time when he is getting his first baptism of actual everyday, routine clinical work. Examples should be set by the older men which will be to his advantage and not give him a misconception of accepted procedures and fundamental ethics.

The intern year is the most important year in the life of the industrious, progressive, and dependable graduate in medicine, believes the editor of *Hospitals*, official organ of the American Hospital Association. The young M D is earnest in his desire to round out the theory he has been taught by its practical application at the bedside.

The intern's successful intern year, according to this authority, depends upon three things.

First, the interest of the hospital and its administration in his progress, in making available its diagnostic and therapeutic equipment for his use, as he needs it and under proper supervision.

Second, the interest and counsel of the members of the staff to whose services he may be assigned, in explaining the significance of pathology found, in teaching him the application of diagnostic procedures, and by showing a sympathetic and helpful interest in his study progress.

Third, his application to the work allotted him during his intern year, and the sincerity of the effort put forth to learn everything that will help him when he engages in private practice.

The hospital superintendent can assist the intern greatly by taking an interest in the intern's welfare and comfort while he is a guest of the hospital, in receiving him cordially when he reports for duty, in meeting with the intern body informally, and in encouraging an administrative, if not a personal, friendship with him and his staff.

Many of our better hospitals view the entering intern as a potential member of their staff, and if not of their own staff, then certainly as a member of the staff of some other good hospital.

The superintendent can serve the intern well by giving one or two informal talks to the intern body on "hospital ethics," the "role of intern service in the hospital," "professional and patient relationships."

Hospitals are becoming more and more dependent upon their intern service. They can secure better service if they will take a professional and social interest in the young medical men who are now coming to them and make them feel that the hospital will be their professional home for the coming year.

A feeling is growing that the present service for interns in most hospitals does not entirely satisfy the young graduate's needs, said President Daniel C. Patterson, of the New England Surgical Society, in his presidential address. And in confirmation he quoted Dr. Hartwell as saying:

"We are fully aware that in many instances the internships in our hospitals, which represent the second step in education, are of far less educational value than they should be. In fact, it has been said by one of our most eminent undergraduate educators that in many instances the young doctor has lost something of great value at the termination of his internship which had been in his possession at the time of his graduation. He referred to the painstaking care with which the student approached any problem, scientific or clinical, which had been inculcated into him in his student days. With the loose, hurried, unconsidered methods employed in some of our hospitals, the intern adopts short-cuts and less orderly thinking than has been his previous habit."

"Shocked Back to Sanity"

REPORTS THAT TWO Rochester hospitals had restored eight mental cases to sanity out of ten subjected to the newly devised insulin treatment has raised hopes of psychiatrists that hundreds of dementia praecox sufferers may literally be "shocked back to sanity," says an Associated Press dispatch.

The new treatment, undertaken in State and Strong Memorial hospitals, under the direction of the State Department of Mental Hygiene, was characterized by two hospital executives as "highly encouraging."

It consists, the physicians explained, of injections of doses of insulin which produce a reaction of shock in the patient.

Strong Memorial, disclosing for the first time that it is working in this field, reported two successes to its credit with the first three patients. The patients have returned to their families and the third is showing improvement, the hospital officials said.

At the State Hospital Dr. John L. Van de Mark, superintendent, confirmed reports of unexpected success with six of that hospital's first seven cases.

"We are apparently beyond the experimental state," he added. "The big question is the permanency of the cures, and time alone will tell this."

Dr. Van de Mark made it clear that while six out of seven appears to be a sensational success ratio, this will by no means continue to hold good. This, he said, is because in the first group were the best suited patients available—young, robust and recent cases.

Hospital executives pointed out that relatives and friends of mentally unbalanced persons should not permit their hopes to skyrocket because of publicity given this new and radical type of treatment.

Factors that must be considered, they said, are (1) Limited ability to carry more than a certain number of cases. (2) That the treatment can be used in no more than twenty-five to twenty-seven per cent of admissions. (3) The profound danger that exists for the patient, a danger that is an unavoidable part of the treatment.

The New York State Department of Mental Hygiene is now using insulin shock treatment in all State hospitals, including Rochester's. Before treatment began, the department arranged to have representatives of each State institution attend a six-weeks' course under Dr. Manfred Sakel, a young Vienna psychiatrist credited with discovering and pioneering in the treatment of victims of schizophrenia or split personality.

Newsy Notes

"MORE THAN 300 HOSPITALS are already making use of air-conditioning, with more equipment being installed every month," says an authority in one of the large companies. "Most popular places for installations have been in the operating rooms, in nurseries for premature and for normal babies, in oxygen therapy chambers, heat therapy rooms or cabinets, and allergic wards—wherever certain constant temperatures and humidities are most greatly needed."

AN AVERAGE OF twenty-five hospital beds from the New Rochelle hospital are out on loan at all times in private homes of New Rochelle, Larchmont, and the Pelhams. The average length of loan is three weeks. The hospital delivers and collects the beds without charge. It follows the same practice with wheel chairs, stretchers, and many other types of hospital equipment.

THE PRESBYTERIAN HOSPITAL of New York has purchased the Washington Heights property of the New York School for the Deaf in one of the largest transactions closed on Manhattan in the last ten years.

The property, which is on Riverside drive at 165th st., occupies approximately seven acres, with a frontage of 640 feet on Riverside drive, making it one of the largest unimproved properties under one ownership left on the island of Manhattan and the only one of any such size on Riverside drive.

Its purchase by the hospital was made possible by the generosity of an unnamed friend, and the fact that the School for the Deaf has purchased a 76-acre tract in the Town of Greenburgh, adjoining White Plains, N. Y., where it plans to build a new and more modern group of institutional buildings.

The Heights property is assessed at \$1,775,000. The hospital, it is understood,

has no plans for immediate improvement of the newly-acquired land although it undoubtedly will be used later to meet expanding building needs

A LAW WAS PASSED IN France in 1936 according to which a salaried employee is obliged to work only forty hours a week. The application of this law to commercial organizations has taken place at a far more rapid rate than was generally thought, resulting in innumerable protests on the part of employers. March 22 a decree was issued by the president of the republic, in accordance with a motion of the minister of labor and approved by the cabinet, extending the new law to all public and private institutions engaged in the care of the sick or mentally incapacitated. The French Private Hospital Association is sending to the government a resolution of protest against the application of the forty hour week to private institutions.

PLEDGE MADE TO A HOSPITAL IS BINDING

A PROMISE TO CONTRIBUTE \$5,000 to Beth-Israel Hospital in New York City was declared binding and enforceable by the Appellate Division in a four-to-one decision on June 18. Previously Supreme Court Justice Philip J. McCook had ruled the pledge unenforceable because it was made without receipt of any consideration.

The agreement was to pay the \$5,000 in four equal annual installments "to aid and

assist the Beth-Israel Hospital Association in its humanitarian work." The pledge was assigned by the hospital to the I & I Holding Corporation, which brought suit when the lawyer failed to pay.

"The subscriber who fills in a subscription blank and the charity promisee do not contemplate a bargain in the mercantile sense," Justice Albert Cohn said in the majority opinion. "Nevertheless, where the subscriber agrees to pay for a certain purpose and the promisee thereafter spends the money for that purpose both intend a binding pledge and the former should be compelled to live up to his promise. The acts of the hospital here in reliance upon the pledge made by the defendant as alleged in the complaint furnished the consideration for the promise to pay and created the promissory estoppel."

Justice McCook in his decision held that the court in determining whether or not there was consideration could look no further than the pledge itself, but the Appellate Division ruled otherwise.

"We conclude," Justice Cohn said, "that the court is not limited to the language of the subscription agreement for the purpose of ascertaining the consideration for the promise of defendant to pay."

Presiding Justice Martin, who wrote a dissenting opinion, agreed with Justice McCook in holding that the pledge was not legally binding.

He suggested, however, that the time might be ripe for the Legislature to declare that a consideration is not necessary to make a charitable pledge enforceable.

Improvements

THE NEW \$100,000 WING of St. Joseph's Hospital at Far Rockaway, housing the pediatric and maternity wards, was dedicated on June 6.

THE NEW CHAPEL at Gowanda State Hospital was dedicated on June 8.

HERKIMER MEMORIAL HOSPITAL is contemplating the addition of a new wing on the east front to correspond with the one on the west. The present bed capacity is only thirty, while the average number of patients last year was twenty-nine, a number which sometimes rose to forty-five, and was generally nearer forty than thirty. The new

wing would accommodate twenty more beds, and would allow the segregation of maternity cases, something not now possible. George J. Sluyter, president, estimates the probable cost of the construction between \$30,000 and \$40,000.

THE RAISING OF \$6,000 for the enlargement of the obstetrical division at the Fox Memorial Hospital at Oneonta and for the purchase of the most modern equipment, instruments and supplies, has been undertaken by the Junior board of the institution. In 1927 the hospital served seventy-one cases in the maternity ward, in 1936 there were 219 cases, over three times as many, and

already this year the number of cases has increased nearly ten per cent for the five months. The problems of the trying conditions this increase has brought have been met by most unusual effort and sacrifices on the part of physicians and nurses, but if allowed to continue they might ultimately affect the work of the whole hospital service.

BROOKS MEMORIAL HOSPITAL, at Dunkirk is renovating, redecorating and refurnishing all the rooms in the main building

THE LITTLE FALLS HOSPITAL is raising \$200,000 for a new addition

SEA VIEW HOSPITAL, at West New Brighton, is building an addition to the nurses' home.

LEONARD HOSPITAL, at Troy, is rebuilding its nurses' home, burned in January. It will have twenty-three single rooms, with marked changes and improvements

THE ELLIS HOSPITAL at Schenectady will launch a \$700,000 building fund campaign for a new building with 100 additional beds, extending the present space in which the laboratory is located, establishment of a new X-ray department and building a kitchen to meet the needs of the enlarged plant. The hospital last year had an average of 227 bed patients daily, in addition to 6,000 outpatients who were treated in the hospital's clinics. The constant growth in the service given by the hospital has so taxed its capacity that the board of managers and the medical staff recently voted to conduct a public campaign this fall to raise the building and expansion fund

PLANS AND SPECIFICATIONS for an addition to the Nyack Hospital have been drawn. The addition, seventeen by forty-one feet, will be of fireproof construction at the front of the building. The first floor will be a lobby and the second floor will contain an apartment for the superintendent, consisting of a living room, bedroom, and bathroom.

Under a separate bid, another addition, fifteen by seventeen feet, will be erected. This will contain a room for the board of managers and a doctors' lounge

Events

TRINITY HOSPITAL, in Brooklyn, celebrated its tenth anniversary with a dinner, entertainment and ball at the Waldorf-Astoria on June 24

DR. ABRAHAM BERGER, chief of the Unity Hospital Dental Clinic in Brooklyn, who recently completed ten years of service at the institution was given a dinner by more

than fifty of his professional associates and friends in the Half Moon Hotel, Coney Island, on June 3, in recognition of his achievements

MR. MAX DE KAYE, who has been superintendent of Beth El Hospital in Brooklyn for ten years, was feted at a luncheon on June 13 by the board of directors

At the Helm

THE FOLLOWING HOSPITAL OFFICIALS HAVE BEEN CHOSEN

Miss Isabelle Cameron, to be superintendent of the Monticello Hospital

Dr James M Blake, to be superintendent of the Glenridge Sanatorium at Schenectady, succeeding Dr James C Walsh, who recently became superintendent of the Nassau County Tuberculosis Hospital at Farmingdale, L. I

Dr J R Clemmons, to be director of Roosevelt Hospital in New York City, taking office in the fall

Marshall Field, to be a director of Huntington Hospital, to fill the vacancy caused by the retirement of A G Milbank

Mrs Louis Wolner, to be president of the Homer Hospital Aid, at Cortland

Mrs George H McFarland, 3d, to be president of the woman's auxiliary of the Mary McClellan Hospital at Cambridge.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Violation of Harrison Narcotic Act as Involving Moral Turpitude

The highest court in one of the western States very recently handed down a decision upon the question of what crimes involve moral turpitude so as to subject a physician to disciplinary proceedings.*

The physician involved was a certain D who had been previously indicted by a Federal Grand Jury and convicted upon charges of a violation of the Harrison Narcotic Act. He had been sentenced to serve a prison term of fourteen months and in addition to pay a fine. The indictment upon which D was convicted charged him with having sold morphine to an addict, not in the course of his professional practice, and without a written order to the addict on the blank for the purpose supplied by the Commissioner of Internal Revenue. An appeal was taken from the conviction and it was affirmed.

The Harrison Act under question, it should be noted, is considered a tax measure, but is a tax measure with a broader object behind it. One Federal Court in commenting upon the Act has said:

The act is ostensibly a revenue measure and within limits the courts must recognize it as such. At the same time any one with sense enough to be at large without a keeper knows the revenue feature, which possibly returns cents for dollars spent in administration is but a fiction and device to enable Congress, otherwise disabled to suppress opium traffic and use, to hinder and obstruct such traffic and use so far as may be done incidental to exercise of revenue power.

Proceedings were instituted before the State Board of Medical Examiners against D for the purpose of revoking his license to practice medicine. The charges first specified that he had been guilty of unprofessional conduct as a physician and surgeon in that he had dispensed drugs to an habitual user of such drugs without intending to cure the habitual user of the use of such drugs. The charges in addition specifically recited the fact that D had been indicted, convicted and sentenced for a violation of the Harrison Narcotic Act, and further that the charge and offense upon which D was convicted involved moral turpitude, and that he

was guilty of unprofessional conduct as defined in the State statute regulating the practice of medicine.

The State statute under consideration in one section empowered the Board of Medical Examiners to issue licenses to practice medicine in the State. Another section of the same statute provided that a person who had been guilty of unprofessional conduct should not be so licensed, and that when a license holder is guilty of unprofessional conduct his license should be revoked by the Board after due hearing. The statute also defined the expression "unprofessional conduct" to include among other things the procuring of a criminal abortion, improper advertising, habitual intemperance in the use of alcohol or drugs, and the "conviction of any offense involving moral turpitude, in which case the record of conviction shall be conclusive evidence."

The physician appeared with counsel before the Board of Medical Examiners for the hearing of the charges. The prosecution introduced evidence both oral and documentary to support the charges. D did not deny that he had been so convicted by the Federal Court nor did he give any testimony or offer any evidence, but objected to all the evidence against him on the grounds that the charges failed to state any statutory grounds for the revocation.

The Board ordered that D was found guilty of unprofessional conduct and that his license to practice should be revoked. He thereupon instituted *certiorari* proceedings in the Superior Court to review the order, and from a judgment of that Court affirming the action of the Board he took the matter to the highest State Court.

The primary question for consideration upon the appeal was the interpretation of the term "moral turpitude" as expressed in the statute, and whether a conviction under the Harrison Act should properly be held to evince moral turpitude. The Appellate Court ruled that the revocation of the license should be affirmed, thereby deciding that such a conviction did involve moral turpitude within the meaning of the act regulating medical practice. In so ruling the Court said in its opinion:

Just what crimes involve moral turpitude is not always easy to say. Generally speaking,

* *DuVall v. Board of Medical Examiners*
66 Pac. (2nd) 1026

those crimes that are *malum in se* involve moral turpitude while those that are *malum prohibitum* do not. But this is not always so. For instance, assault and battery is *malum in se*, but rarely involves moral turpitude, while the sale or dispensing or prescribing of narcotic drugs, except for medicinal use, and under strict surveillance, does involve, as we think, moral turpitude, although *malum prohibitum* only. One of the great evils of the day is the consumption of narcotic drugs. Because so many persons become addicts, most of the states, if not all of them, have enacted laws restricting the right to dispense or prescribe such drugs to registered pharmacists and physicians for medicinal purposes only and inflicting very severe penalties for their violation. While the United States under principles of police power cannot take control of narcotic drugs, and regulate their disposition and use, it has under the taxing power made the traffic in such drugs more difficult.

Mr. Newell in his work on Slander and Libel (4th Ed.) Sec. 32, says "Moral turpitude may therefore be defined as an act of baseness, villainess or depravity in the private and social duties, which a man owes to his fellow-men, or to society in general, contrary to the accepted and customary rule of right and duty between man and man."

If there is any one who is to be pitied, it is the addict of habit-forming drugs of the narcotic kind. He is usually a hopeless loss to society. Not only that, but he is a real menace. He will do most anything to secure the drug to satisfy his cravings and under its influence commit most desperate crimes. No one knows this better than the members of the medical profession, bound by their honor and the Hippocratic oath to the highest ideals in their relation to society and especially those seeking their advice and help. When one of these has been convicted of violating the Harrison Narcotic Act we think it safe to say he is guilty of "an act of baseness—contrary to the accepted and customary rule of right and duty between man and man" as manifested by legislation by most of the states and the United States and by common consent.

Needle Breaking Case

A middle-aged woman who was suffering from tuberculosis had been under the care of a physician, who for sometime had been regularly administering to her certain injections into the pleural cavity. On one occasion, when the patient came for her injection, the doctor after sterilizing the area inserted between the eighth and ninth ribs a two inch, twenty gauge needle. After the needle had been so inserted, but before he was able to attach the tube thereto, without apparent cause the needle snapped. The doctor found that about two-thirds of the needle remained in the patient's chest. The doctor made no attempt at the time to remove the needle but promptly had the pa-

tient taken to a hospital for x-rays. He called into consultation a surgeon and it was decided that the needle was in the chest cavity where it would be inadvisable to attempt a removal. Sometime thereafter a malpractice action was brought against the doctor charging that he had negligently broken the needle and had negligently permitted it to remain within the plaintiff.

The case came on for trial as a non-jury case and the plaintiff offered no expert testimony to establish negligence on the part of the defendant in breaking the needle. Her theory seemed to be that the loss of a portion of the needle was of itself evidence of lack of skill on the part of the defendant. The defendant's proof showed that he did what was usual in connection with the treatment of the patient and that sometimes needles break regardless of the fact that due care and skill was used throughout the treatment. The plaintiff undertook to prove that at the time the needle was inserted that there was another doctor present in the room to whom the defendant was talking.

The court ruled that the defendant was entitled to judgment dismissing the complaint on the merits as plaintiff did not establish a course of action.

Treatment of Styte

A man consulted a physician who specialized in the treatment of eye, ear, nose, and throat diseases for the purpose of having his eyes fitted with glasses. After the glasses had been so furnished, he returned to the doctor complaining of a styte in his right eye. The doctor decided that the styte should be opened and using a sterile knife under the usual aseptic precaution lanced the styte and cleaned the same. He gave the patient a preparation of silver which he directed should be dropped into the eye, two drops every two hours. The patient was also told to return the following day for further treatment. The patient, however, failed to return as directed.

The next the doctor heard from the man was when an action was instituted against him charging malpractice. The plaintiff claimed that the defendant had operated upon the eye and had permitted the eye to be left without applying any antiseptic as a result of which an infection had been caused which extended throughout the eye and continued as a painful condition for over a month. He did not claim, however, any loss of vision or any permanent injuries.

When the case was about to be reached for trial, plaintiff's attorney consented to discontinue the action thereby admitting he was unable to establish a cause of action against the defendant doctor.

Across the Desk

Father now the "Problem Child" of the Family

FATHER SEEMS TO BE CROWDING the baby out of its long-held place as the chief health-worry of the family. The infant scourges of years ago are yielding to science, but, as they decrease, the ills at the other end of the scale grow more savage and threatening. Diphtheria, typhoid, tuberculosis, the intestinal infections of childhood, all are greatly diminished, the degenerative ills of age, arteriosclerosis, high blood pressure, cardiovascular-renal diseases, cancer, diabetes, all are on the increase.

"Old-age security" is on the wrong track, as embodied in legislation passed at Washington. Real security is not to be had by deductions from pay envelopes or contributions by employers. For old age is being attacked by foes that will yield to only one defender—medical science. The family physician is finding the character of his practice changing. He is being called for fewer and fewer cases of diphtheria and cholera infantum, and for more and more cases of illness peculiar to life's afternoon and evening.

Life-insurance companies, too, do not insure life. They only insure that the widow will receive a specified sum when her husband dies. Life is insured, if at all, by medical science, which discovers the evil forces that are threatening life and defeats them. That is real insurance of life, not insurance of a postmortem consolation payment.

Give the Seeds of Death a Crop Failure

A Latin poet said that "we do not wholly die." That is, we live on in the hearts and fond memories of our friends, or in the resounding echoes of fame, as the poet himself still lives. It might also be said that we do not die all at once. We begin to die, little by little, many years before we close our eyes for our final sleep, and it is the doctor's task to detect the insidious approach of mortality, as it creeps into this or that avenue of the organism, and to put it to rout. A poet might say that we have within us the seeds of death from the day we are born, as we

are all mortal, but it is a hard, cold fact that the fatal seeds are implanted in life's garden at some time, soon or late, and it is the M.D.'s job to give them a crop failure.

A great difficulty with father as the new "problem child" is that he disregards health's danger signals. He runs recklessly past the red lights. When baby has a pain, the whole neighborhood gets the news, but when father has an ache, he says nothing about it. That is what gives value to a series of advertisements that are being run in the popular magazines by a leading pharmaceutical firm, frankly addressed to "the man of 50," and advising him to see his family doctor and have an examination. They are based on a statement made shortly before his last illness by Dr. Lafayette B. Mendel, Sterling Professor of Physiological Chemistry at Yale and for eighteen years a member of the Council of Pharmacy and Chemistry of the AMA. He said

"Something should be done about the man of 50. Nobody seems to be paying much attention to the increasing 'degenerative' conditions among middle-aged men. All these conditions—heart disease, kidney trouble, hardening of the arteries, high blood pressure, diabetes—may be alleviated. The problem is to get men to go to the doctor *in advance* of trouble. But it is customary for men not to do anything about their health until definite symptoms appear. We ought to change that."

With this key truth as a text, these advertisements by Squibb tell the man of fifty that

No man can be his own best friend after fifty—he should share the responsibility with his physician. So see your doctor and ask for a complete check-up—even if you feel perfectly well. It takes very little time, and by following his advice, by reducing your "speed," you will find those higher hills easy to take.

Once you have started, above all continue to see your doctor at reasonable intervals. That is the best way to be sure of getting the most out of your life after fifty.

"Sudden Deaths" are not Sudden

The sudden death of the administration leader in the Senate a few days ago gives point to this advice. Such a death is not "sudden." Dr. Charles H. Mayo, in *The Rotarian* for June, remarked on a similar case "He didn't die suddenly, he was years in dying. Years ago his physician, if given the opportunity, might have discovered the damaged heart which probably he had had since some infectious disease or infected teeth or tonsils in childhood. Early detection would have added happy, useful years to his life."

"The longer the belt line, the shorter the life line," is the crisp rule laid down by the *Statistical Bulletin* of the Metropolitan Life Insurance Company. Life insurance companies, we are told, pay a lot of attention to the waist measure. Insurance study shows that men who are overweight by thirty-five per cent or more have a mortality over 1½ times that of average-weight men and the greater the overweight, the greater the mortality. Of all the types of overweights "the pot-bellied variety is the worst," we are informed frankly. An imposing list of degenerative ills is found to accompany overweight.

High blood pressure, for example, is over 2½ times as common among overweights as among persons of average weight. Albuminuria

and glycosuria in significant amounts are nearly twice as frequent. The specific hazards of overweight include most of the important diseases of adult life, especially the cardiovascular-renal diseases, which are responsible for an increasing proportion of the death toll today. Thus, the death rate of overweights from heart disease and from cerebral hemorrhage is 1½ times that of average weights and nearly twice that of underweights. For angina pectoris, the difference is even larger. The mortality of overweights from this condition is more than twice that of average weights and 2½ times that of underweights. Bright's disease exacts a death rate among overweights 1½ times that among average weights, and 2¼ times that among underweights. The most striking difference of all is found for diabetes. The death rate of overweights from this disease is 2½ times that among average weights and four times that among underweights.

The question used to be "How much does the baby weigh?" Now a more important query is "How much does father weigh?"

The splendid extension of the span of life has brought the family breadwinner into the zone where he is endangered by formidable diseases that we may perhaps defeat if we can only take them in time. What is needed right now is a campaign to awaken the father to the realities of the situation and to show him that loyal friends stand ready to give him a helping hand.

Use of Sulfanilamide in Gonorrhea

THE "FIRST SATISFACTORY TREATMENT" for gonorrhea is the description given by Dr. Frederick A. Reuter, Professor of Clinical Urology of the George Washington University School of Medicine, in a paper describing the use of sulfanilamide. "Its effect is rapid when effective," he declares, "and it has been successful in producing at least a clinical recovery in 90 per cent of our test series of 100 cases." His paper appears in the May issue of the *Medical Annals of the District of Columbia*, and almost simultaneously, on May 29, a paper was published giving similar conclusions in the *Journal of the A.M.A.* (See page 1393, this issue of the JOURNAL.)

We are told in the latter paper that because of the close biologic relationship between the meningococcus and the gonococcus John E. Dees and J. A. C. Colston Baltimore, investigated the effect of oral administration of sulfanilamide in nineteen

cases of gonococcal infection seen in the Brady Urological Dispensary of the Johns Hopkins Hospital. With a few exceptions, all patients received, in four divided doses a day, 48 gm of sulfanilamide daily for two days, 36 gm daily for three days, and then 24 gm daily for from four to eight days.

Interesting Results

The active urethral discharge disappeared in three cases in one day, in seven cases in two days, in two cases in three days, in two cases in seven days. In one case it disappeared in four days to recur slightly on the fourteenth day and again disappeared on the sixteenth day. One patient was treated for two days with sulfanilamide but failed to return until three days later. The discharge had continued during this time. The drug was again administered for two days but the patient did not return until the

twentieth day, at which time the discharge was still present and positive for gonococci. The drug was again administered and the discharge disappeared and the smear became negative for gonococci in the ensuing three days and has not recurred to date. In two cases the discharge is still present ten and twelve days respectively after the beginning of treatment.

One patient, with chronic anterior and posterior urethritis, subacute prostatitis, subacute right epididymitis and acute left epididymitis had no urethral discharge, but gonococci were demonstrated on smear and culture from the urine. The organisms disappeared three days after the institution of treatment, and there had been marked diminution in the swelling of the left epididymis. When seen last on the fourteenth day after the institution of the treatment, the patient was free from symptoms, there was no urethral discharge and the urine was clear in three glasses. Prostatic secretion showed from six to eight white cells per high power field. Stained smears from the urethral discharge and centrifugated urine became negative for gonococci in from two to twenty-three days. In one case smears became negative on the ninth day, positive on the fourteenth day and again negative on the seventeenth day. In three cases gonococci are still present after eleven days.

Cautions and Dangers

Symptoms of burning and frequency disappeared in from one to eight days. Symptoms of slight dizziness and lassitude occurred in four cases with the initial larger doses but disappeared when the amount of the drug was reduced. In several instances it was noted that, as the urethral discharge

began to disappear, the gonococci were found to lie extracellularly, with little or no evidence of phagocytosis by the leukocytes. Immediately on the complaint by the patient of lassitude or dizziness, the dosage must be reduced or the drug discontinued completely. Should symptoms persist, a complete blood study should be done. Their use of sulfanilamide in the treatment of gonococci infections has led the authors to believe that this drug will prove of great value when large numbers of gonococci infections can be closely followed, so that an accurate evaluation of sulfanilamide in the treatment of gonococci infections can be determined and the optimal dosage and possible deleterious effects further studied.

Certain dangers are associated with the use of sulfanilamide, observes Dr. Reuter in the *Medical Annals of the District of Columbia*. It was at first believed to be nontoxic, but with the great increase in its use, reports have shown that it should be used with caution. Since it will probably come to be used universally for the treatment of gonorrhea, one can readily visualize its uncontrolled abuse because of the advice one patient with gonorrhea passes to a fellow-sufferer, because of nation-wide publicity given the preparation under trade names, and because of the ease with which it can be purchased from any drug store counter without a prescription. It can be bought indiscriminately at any pharmacy and used without control. Until such a time when proper steps shall have been taken to protect the public from its harmful effects it rests with the medical profession to bend every effort to assume that duty. This can be accomplished by placing on the prescription the words "Do not refill."

THE GOLF TOURNAMENT IN ROCHESTER

On May 27 the championship of the State Society was won by Dr. W. E. Pelow of Syracuse, with a score of 81. Dr. Pelow was awarded the beautiful solid silver trophy presented by Dr. Floyd S. Winslow. Dr. H. H. Hopkins of Rochester, the runner-up with a score of 86, was awarded the championship of the Inter-City Academy of Medicine League. The trophy was a beautiful solid silver one. Dr. Augustus B. Wadsworth of Albany won the Senior's championship with a score of 92. He was awarded the beautiful trophy presented by the Paine Drug Company of Rochester. The left-handed golfers' championship was won by Dr. Balfour of Toronto.

The team match was won by the Roches-

ter Academy of Medicine, with the Buffalo Academy of Medicine in the second place. The Toronto Academy of Medicine and the Hamilton Academy of Medicine occupied third and fourth places, respectively. The Rochester Academy of Medicine therefore, becomes the possessor of the Josiah K. Lilly Trophy for the second time. This competition was inaugurated in 1931, at which time it was won by the Rochester Academy of Medicine. For the next four consecutive years it was won by the Toronto Academy of Medicine. In 1936 it was won by the Hamilton Academy of Medicine. The contest for this trophy is held yearly and is open to academies of medicine in New York State and Canada.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

The Common Neuroses Their Treatment by Psychotherapy An Introduction to Psychological Treatment for Students and Practitioners By T. A. Ross, M.D. Second edition. Octavo of 236 pages. Baltimore, William Wood & Company, 1937. Cloth, \$4.00.

The Basis of Clinical Neurology The Anatomy and Physiology of the Nervous System in Their Application to Clinical Neurology. By Samuel Brock, M.D. Octavo of 360 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.75.

A Text-Book of Mental Deficiency (Amentia) By A. F. Tredgold, M.D. Sixth edition. Octavo of 556 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$7.50.

Elements of Orthopaedic Surgery By N. Ross Smith, F.R.C.S. Duodecimo of 246 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.00.

Diseases of the Nose, Throat and Ear A Handbook for Students and Practitioners. By I. Simson Hall, M.B. Duodecimo of 423 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.00.

Electrocardiography By Chauncey C. Maher, M.D. Second edition. Quarto of 254 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.00.

The Treatment of Diabetes Mellitus By Elliott P. Joslin, M.D. Sixth edition thoroughly revised. Octavo of 707 pages illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$7.00.

Short Wave Diathermy By Tibor de Cholnoky. Octavo of 310 pages, illustrated. New York, Columbia University Press, 1937. Cloth, \$4.00.

A Workbook in Health for High School Girls By Gladys B. Gogle, M.S. Quarto of 267 pages. New York, A. S. Barnes and Company, 1937. Paper, \$1.00.

A Mind Mislead. By Henry Collins Brown. Octavo of 219 pages. New York, E. P. Dutton & Co., 1937. Cloth, \$2.00.

The Betty Book Excursions into the World of Other-Consciousness. Made by Betty between 1919 and 1936. Now recorded by Stewart E. White. Duodecimo of 302 pages. New York, E. P. Dutton & Company, 1937. Cloth, \$2.50.

Hypnotic Power Its Cultivation, Use and Application to Psychotherapy. By Colin Bennett. Duodecimo of 158 pages. New York, E. P. Dutton & Company, 1937. Cloth, \$1.50.

International Clinics A Quarterly of illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment. Medicine, Surgery, Neurology, etc. Edited by Louis Hamman, M.D. Volume II, Forty-Seventh Series, 1937. Octavo of 315 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1937. Cloth, \$3.00.

Infantile Paralysis and Cerebral Diplegia Methods Used for the Restoration of Function. By Elizabeth Kenny. Octavo of 125 pages, illustrated. Sydney, Australia, Angus & Robertson, 1937 (Philadelphia, P. Blakiston's Son) Cloth, \$1-1-0.

REVIEWED

Nutritive Aspects of Canned Foods American Can Co.

A second book containing scientific facts on commercially canned foods has recently been published by the American Can Company, compiled by the Nutrition Laboratory in the Research Department of the Company. This book has been prepared for doctors and scientific workers with canned foods. The earlier book, "Facts About Commercially Canned Foods," was published last year.

The book is a general summary of facts about tin containers and canned foods. It

is divided into two sections. The first deals with the preservation of foods, dietary requirements, the mineral and vitamin conservation in canned foods, infant nutrition, and the safety of canned foods under modern methods of packing. Section two takes up the manufacture of the cans, including the tinplating, enameling, and a description of can sizes. It also discusses the canning procedure from the raw materials through the sealing of the cans and the heat processing.

The back of the book contains an appendix of reference tables of all kinds. There

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St., N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

are charts on human energy expenditures, dietary requirements, mineral and iodine content of various foods, and analyses of canned foods of many kinds. A bibliography contains an appendix of references to the more complete works on each phase of the industry as well as the general texts used in preparation of the book.

A Hand-Book of Ocular Therapeutics. By Sanford R. Gifford, M.D. Second edition, thoroughly revised. Octavo of 341 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$3.75.

This compact and useful book has been expanded by some 70 pages in the second edition. New drugs and procedures have come into the field since the first edition and these are discussed and appraised. A number of pages is given to the use of vitamins and glandular extracts.

New material is added to the chapters on physical therapy and dermatitis, as well as to that on keratitis, and a chapter has been added on diseases of the orbit and on retinitis pigmentosa and myopia. Illustrations have been increased in number and clarity and the format has been improved by the use of bold faced type in subheadings and by the frequent use of italics for emphasis of important points.

E. CLIFFORD PLACE

Diseases of the Coronary Arteries and Cardiac Pain. Edited by Robert L. Levy, M.D. Octavo of 445 pages, illustrated. New York, The Macmillan Company, 1936. Cloth, \$6.00.

There is need at present for us to pause and take stock of the state of knowledge of diseases of the coronary arteries. Information has been accumulating so fast that physicians feel the need of some volume to which they can turn as an authoritative reference book on all phases of this subject. This they now have in *Diseases of the Coronary Arteries and Cardiac Pain*. Excellent chapters on all phases of the subject are written by outstanding authorities.

The seriousness with which each title is discussed is worthy of more than passing comment. Fundamental principles are presented, and gaps in our knowledge especially in anatomy and physiology are clearly shown. The chapters on anatomy and physiology of the coronary arteries are particularly noteworthy. They require close reading but well repay the effort.

The section on nervous pathways concerned in the mechanism of cardiac pain is excellent and gives one a precise conception of what can be expected of each of the surgical procedures advocated to relieve anginal pain. The use and value

of the electrocardiogram is clearly expounded, particularly the interpretation of precordial leads in cardiac infarction. The reader can find helpful information on clinical diagnosis and management of coronary artery disease and cardiac infarction, and also upon the rarer affections of the coronary vessels.

This volume is heartily recommended both for the practicing physician and for students of fundamental problems of diseases of the coronary arteries.

EDWIN P. MAYNARD, JR.

The Diagnosis and Treatment of Chronic Diseases of the Respiratory Tract. With Especial Reference to the Lesions of the Trachea, Bronchi, Lungs, Pleura and Diaphragm. By Elmer H. Funk, M.D. Revised by Burgess Gordon, M.D. (Reprinted from Oxford Monographs on Diagnosis and Treatment). Octavo of 618 pages, illustrated. New York, Oxford University Press, 1936. Cloth, \$8.00.

This book covers the subject of chronic respiratory diseases in a thorough and complete manner.

As in all such work, some portions are of relatively greater value than others. Particularly excellent are those dealing with the subject "Pulmonary Tuberculosis and Its Treatment." The arrangement of the earlier chapters of the book is a little confusing, the subjects are jumped about in rather curious fashion from etiology to treatment, from thoracentesis to tuberculin reaction and heliotherapy. The technique of artificial pneumothorax is not in that portion dealing with pulmonary tuberculosis but in one of the earlier chapters, isolated. The chapters on neoplasm of the lung are excellently developed, and throughout the book are numerous clarifying illustrations.

FOSTER MURRAY

Live Long and Be Happy. How to Prolong your Life and Enjoy it. By Lewellys F. Barker, M.D. Duodecimo of 224 pages. New York, D. Appleton-Century Company, 1936. Cloth, \$2.00.

It would seem that the author in his effort to speak to the layman and the physician at the same time has missed his mark. What the trained and experienced physician has to say to his fellow practitioners is one thing, and what one should, may, and can say to the intelligent layman about medicine is quite another. This little volume very graphically illustrates the truth of this statement. It does act as an excellent guide for the doctor who attempts to explain adequately to his patients in simple language, the causes, symptoms and treatment of their diseases.

BENJAMIN M. BERNSTEIN

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THE AIMS OF A CANCER GROUP

WILLIAM E. HOWES, M.D., *Brooklyn*

Clinical Director, Brooklyn Cancer Institute

The City of New York has seen fit to set aside The Brooklyn Cancer Institute, an autonomous hospital of eighty-five beds among the Kings County Hospital group for the study and care of the cancer patient.

While this present Institute is a newly organized unit, staffed by a representative group of Brooklyn physicians chosen by a special committee appointed by the Commissioner of Hospitals, it is in reality the result of the logical outgrowth from the already established Brooklyn Cancer Institute first organized by Dr Charles A. Brown, in the old Cumberland Street Hospital Building in 1925. From 1925 until January 1930 this old structure was maintained as the only Cancer Hospital in Brooklyn and was ordered evacuated only because it violated certain fire ordinances. While the hospital proper was evacuated, the outpatient clinic in the old building was permitted to continue its service, and through the courtesy of the Staff of the Cumberland Hospital, two wards were set aside in the newer Cumberland Hospital, some two blocks away, for cases requiring hospitalization. The fact that this Clinic grew in activity and in numbers of patients from year to year, clearly demonstrated its need. Because of their knowledge and experience, the Staff of the present institution was developed about the nucleus already established at the old clinic.

Now we who have been chosen to man this Institution have been given a rare opportunity. The City with the aid of the P.W.A. funds has presented us with a physical plant that can hardly be excelled with which to care for the City's poor, suffering from neoplastic and allied diseases. It has furnished us with the proper nursing and technical personnel, and has provided for us the special instruments for careful examination, laboratory and x-ray diagnostic facilities. We have a battery of four x-ray therapy machines and the use of emanation from the Radium Solution at the Welfare Island Cancer Hospital. The necessity of giving us a needed gram of radium element is now being considered and has been recommended to the Department of the Budget Director.

In return for these physical advantages what should the individual citizen expect? In the first place, he should expect expert careful medical and nursing care of the poor cancer patient. He should expect that this care be given not only within the limits of our personal knowledge, enthusiasm, and strength, but more than this, that it should be rendered in the knowledge of the newer and better methods of treating cancer. He should expect us to be in the position not only to distribute that knowledge to the whole community but particularly to the physicians of the Community.

Read before the interdepartmental meeting of the Cancer Units of the Division of Cancer (Ira I. Kaplan, M.D., Director), Department of Hospitals, City of New York, December 27, 1936

Now, besides the actual care of the patient, what activities should be fostered?

First Regular clinical and pathological conferences to which the physicians of the community are invited

Second Cooperation between the members of the Staff of the Brooklyn Cancer Institute and the County Medical Society (a) in order to aid in the local societies' activities in Cancer work and (b) to cooperate in lay educational movements for the discussion of cancer

Third (And of the Utmost Importance) Research Work While we are as yet in no position to do any extensive research with animal experimentation, we are, on the other hand, provided with an endless stream of clinical material, which, with the careful check of our results, using approved advanced methods of treatment, should give us the opportunity to thoroughly evaluate such methods of treatment as employed by us. This includes exacting records from the staff plus careful follow-up by a Social Service Department. This will permit the careful evaluation of surgery, x-ray, and radium therapy methods used separately or in various combinations and the careful evaluation of interstitial, intercavity radiation as compared with external radiation from different qualities of x-ray and various forms of telerradium therapy

Research in Radiology The question of the reaction of tissues to different qualities of x-ray is still a highly debatable subject. One leading radiologist boldly states and tends to prove with certain biological tests that cellular tissues respond equally to all qualities of x-ray and that similar doses will result in a given percentage of cell death, while others question whether the reaction of the cells in a complex organism such as the human body, constantly bathed in lymph with blood and nerve supply furnished from distant sources and with the different types of cells showing vastly different reactions in time and form to the x-ray, can be compared in any way with the results demonstrated in the laboratory with unicellular and simpler organisms. Perhaps the simplest variant of all—time—is still being questioned. One leading group of radiologists in this country claim that giving fifty r per min-

ute gives equivalent reactions within biological limits as compared with three to five r per minute. We all know that the leading French school has rationalized their therapy on the fact that the differential between the normal and neoplastic cells is better accomplished by prolonging the time of radiation. Another simple time relationship is the spacing of treatments. Shall the treatments be given daily, twice daily, every second or third day, weekly or monthly intervals? Shall the dose be large or small? Does radiation injure the smaller capillaries and thereby cut off the blood supply to a tumor? Are the tumor cells more sensitive to radiation during mitosis or must the cells be destroyed as by a cautery with massive doses? What happens in the tissues to produce death in a cell—must the radiation be absorbed, diffracted or is there a secondary ionization that actually results in tissue reaction or cell death? All these questions we shall strive to answer

Research in Pathology Next, let our research approach the issue from pathological angles. Broder, by his simply grouping of all types of malignancies into four main groups, mostly from a morphological angle, gave a great impetus to the value of a pathological diagnosis to the clinician. McCarthy, from the same school, however, has shown that there are some eighteen ways by which a tumor may be classified. The study of the blood supply, the comparison of the primary with secondary growth all open up great fields of research.

The pathologist, in consultation with the clinicians, should set down certain broad fields of classification. Any system should agree as closely as possible with the accepted methods of pathological classification, the pathological classification should dovetail with the clinical grouping to show the extent of involvement. In this way our records could be compared with those of other cancer centers.

Research can include the clinical classification of all patients. We all agree that a smaller solitary lesion is easier to treat than a larger lesion with multiple growths. Even the simplest lesion of all to destroy, namely the basal cell carcinoma on the skin may assume hopeless

proportions if not treated or if unwisely treated. Lesions in the esophagus, stomach, intestine, and colon have usually been present for many months before the patient reaches our institution. This classification should include accurate measurements of all surface lesions and estimation of size and shape of deeper lesions.

The simple study of the usual progress of certain types of malignancy can be further investigated, thanks to the cheerful cooperation of the gynecological, urological, and radiation services. Many of us know that the average case of cervix carcinoma is more apt to die of uremia from obliteration of the ureters due to parametrial extension rather than from other causes as hemorrhage or distant metastases. We are now attempting to coordinate the clinical, physical, and roentgenological changes in such cases and it is my impression that we may be able to find complete or partial obstruction to the ureter nearly as soon as the parametrial thickening is palpated rectally and long before any obstruction is suspected clinically.

Research in Serology may include the more careful estimation of liver damage by newer methods as has been suggested, both to determine the possibility of the progress of the disease to the liver and to determine the debilitating effects of cancer, surgery, and radiation on liver function.

Research in Diets The optimal diet for a cancer patient should be worked out. Does the cancer patient suffer from vitamin deficiency? Can radiation sickness be controlled by diet?

Research in Surgery This field is limitless and special problems will be suggested and carried out.

And so, only by cooperation between all services can a hospital of this nature function efficiently and only by frank discussion can the many problems be fairly met. Any radiologist, naturally tends to look upon the problems from the background of his personal experience. I have been fortunate in having had an ex-

perience in general practice before taking up radiology which I hope will keep my mind open to the many great advantages and achievements of skillful surgery. As a radiologist, I invite the surgeons of the staff to suggest the possibilities of different types of surgery in a broader way of dealing with groups of malignancy or in the treatment of individual cases. Recently our group of surgeons agreed that before treatment of any cases of carcinoma of the rectum, a consultation be arranged between the surgeon, internist, and radiologist, so that we may outline in a general way the broad policies of surgery or radiation to be followed in such an individual case. In that way early mobile carcinoma of the rectum would not be sidetracked into prolonged treatment with radium and x-ray when an immediate radical resection is indicated. On the other hand, such a consultation may deter the surgeon who might attempt to routinely try to remove the irremovable growth or operate on a patient who most evidently is constitutionally unfitted for such an extensive procedure.

It is the wish of the three directors* that all new cases be subjected to the same consultation as to type of therapy to be employed so that certain broad principles of procedure may be properly instituted. I am particularly interested in the treatment of breast malignancy. Here is a disease which develops in both sexes in a gland near the surface, easy to palpate, and relatively easy to diagnose. This is the place where, with full cooperation of the surgeons, we should work out a rational procedure. Certainly no startling advance has been made in our mode of surgical attack since the day of Halstead. Up to the present no startling changes have been reported following pre-operative radiation, still with certain selected cases which were given prolonged intensive highly filtered radiation malignant tumors, proven by biopsy have clinically disappeared and more extensive malignancies have retrogressed to one-third or less of their previous size.

* The Commissioner of Hospitals (Dr S S Goldwater) has ordered under General Order #277, paragraph "c" "The Directors of Surgery, Medicine and Radiation Therapy shall constitute a clinical committee to be responsible for the clinical policy in general and for the individual treatment and care of patients where the general established clinical routine fails to determine the best form and sequence of therapy for that case."

Glandular and bone metastases have been controlled. I am, therefore, making an appeal that some program be set up whereby a certain percentage of all breast lesions be treated from a radiological viewpoint (which does not omit surgery) and others treated from a surgical viewpoint, in order that we can evaluate the method best to follow.

Plan of Building

FIFTH FLOOR

General Pathological Laboratory
Conference Room
Library
Sun Porches

FOURTH FLOOR

Operating Suite
Anesthetic & cystoscopic rooms
Radium room and safe
Female Wards (small and large wards)
(Radium bomb in small ward)

THIRD FLOOR

Female Wards (two small wards and one large ward)
Two semi-private rooms
Dressing rooms
Recreation and Dining Rooms

SECOND FLOOR

Male Wards (two small wards and one large ward)

Two semi-private rooms
Dressing room
Dining Room, which is used for recreation room during day except meal hours
Social Service Office

FIRST FLOOR

Executive Offices
X-ray diagnostic rooms
X-ray therapy Department (four treatment rooms)
Waiting Room
Head Nurse's Office
Clinic Rooms (Surgery, Gynecology, Medicine, Dentistry, and GU)

GROUND FLOOR

Meeting Room for Staff and for larger groups
Locker and Rest Rooms for Employees
Kitchens
Admission Room

Summary

- 1 The physical plant of a city cancer unit is outlined
- 2 The historical background is summarized
- 3 The system as to the procedure for the care of patients is given
- 4 The research problems to be met is touched upon

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NOW THEY KNOW

An inquiring reporter seized his opportunity at the state convention in Rochester to find out "Why doctors write scientific titles and phrases in long word language which baffles many laymen." He buttonholed Dr. Peter Irving, whose job as Secretary and General Manager of the State Medical Society seemed to indicate him as the proper victim. The interview goes on:

"In titling scientific papers," Doctor Irving explained, "Latin in particular and often Greek are used to designate a particular type of disease condition."

"In the first place, it has always been necessary to use a word which means the same to people of all nations. The scientific term has a worldwide value in the medical profession."

"In the second place, the use of dead languages insures greater accuracy, because the words of Latin and Greek do not vary in meaning now. Modern language, being

living and on the move constantly, often varies in its word values."

"Prescriptions are written traditionally in Latin for the same reason—the phrases always mean the same thing. Therefore they are constantly accurate."

Doctor Irving thumbed the scientific program of the medical society. "Here is a paper," he said, reading, "Treatment of Polycythemia Vera."

"Polycythemia means 'too much hemoglobin—too many red cells in the blood.' Vera means 'true' as compared to 'false.'"

"Here's another—'Analgesia and Anesthesia in Obstetrics.' Analgesia means 'without pain,' anesthesia means 'without sensation.'"

Greek enters into other words commonly used by the layman, without, perhaps, his knowing what they really mean. There are, for instance, tonsillitis, appendicitis, laryngitis. "In each word, the Greek suffix 'itis' means 'inflammation.'"

GASTRIC ROENTGENOLOGIC CHANGES IN DEFICIENCY DISEASE

Response to Treatment

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A number of reported clinical studies have demonstrated the importance of the morphologic changes exhibited by the small intestine in certain dietary deficiency diseases. Mackie, Miller, and Rhoades,¹ by a special radiologic technic, were able to identify characteristic abnormal patterns of the intestine in seventeen cases of sprue. After a few days of adequate parenteral liver therapy these distorted outlines, coincident with clinical improvement² are replaced by essentially normal appearing radiographs. Similar changes in the outline of the small intestine have been noted in idiopathic steatorrhea,³ chronic ulcerative colitis,⁴ and experimental avitaminosis in animals.⁵

Of great importance is the recognition of dietary deficiency disease apart from the clinical entities such as sprue, pellagra, alcoholic polyneuritis, and steatorrhea. The essential history is that of a diet deficient in proteins and vitamins. The clinical picture is predominantly that of gastrointestinal dysfunction, often accompanied by peripheral nerve symptoms, progressive anemia, and some of the physical signs associated with the Addisonian type of anemia. Such cases usually show an achlorhydria.

The present report concerns a case of deficiency disease in which the radiographic appearance of the stomach seemed characteristic of a neoplastic growth of that organ. This patient has been followed for three years and the effect of dietary and liver therapy on the gastric pattern and capacity is presented.

Case History

S K., a fifty-three-year-old white female, first entered the Cornwall Hospital on May 7, 1934. She had been in good general health until December 1933, when she suddenly began to have daily emesis, non-projectile in type, and frequent attacks

of diarrhea. For several weeks she vomited most of the daily intake of food, and thereafter continued to have less frequent emesis but was able to retain small amounts of soft food. Her weight dropped from one hundred thirty-five to ninety-seven pounds. At times there was dull, non-radiating, epigastric pain, and much burning and eructation. In May 1934 the emesis again became persistent. She was only able to retain liquids.

The previous medical history was of little interest, except for chronic constipation of many years' standing. She had had five normal pregnancies, and an uneventful menopause at the age of forty-eight. For several years before admission she had existed on a diet largely deficient in meat, fresh fruits, and vegetables. Her preference was for a refined, denatured, soft carbohydrate menu.

Physical examination showed an undernourished, emaciated woman appearing chronically ill. There was a marked glossitis, but no atrophy of the tongue. Slight tenderness was present in the epigastrium. Blood examination showed 4.06 million red cells, seventy-one per cent hemoglobin, color index 0.9. The number and differential percentage of leukocytes was normal. The gastric content after alcohol test meal contained thirty-five per cent free HCL, sixty-seven per cent total acidity.

The appearance of the stomach by x-ray visualization is seen in Fig 1. The deformity of the pars pyloricus was constant, and approximately as depicted throughout fluoroscopy and on successive plates.

The patient was discharged for a trial of dietary management by her physician, but failed to cooperate and was not seen again until her readmission on July 28, 1935. In the interval she had existed on an exclusive diet of milk, egg albumin, and various fluids. The vomiting and dull epigastric pain had persisted. Her weight remained at ninety-seven pounds. In the several months preceding she had had increasing pains in legs and arms, numbness of the fingers, and visual disturbances. There was no complaint of stomatitis. Di-

From the Ogden Memorial Tumor Clinic, Cornwall Hospital



Fig 1

arrheal attacks were frequent. She claimed to have had emesis of blood and "pus" on one occasion, and occasional black stools.

On this examination there was atrophy of the lingual papillae, particularly along the lateral borders of the tongue, with persisting glossitis, no ulcers in oral cavity or pharynx. Upper abdomen was distended and flatulent. Tenderness in epigastrium was moderate. Muscular wasting was very evident. There was a pallor of skin and mucous membrane, with an icteric tinge. *Laboratory examination* red blood cells, 30 million, hemoglobin, seventy per cent, color index, 11, smear showed red blood cells tending to be macrocytic, normal differential leukocytes percentage, with a total of 6,000 per cu mm. Gastric analysis revealed an absence of free hydrochloric acid on fractional alcohol test meal. Total acidity averaged ninety per cent. None of five specimens removed contained blood or mucus, and all contained lactic acid.

The radiographic appearance of the stomach is seen in Fig 2. The stomach again showed a constant deformity throughout a prolonged fluoroscopic examination and in interval plates. The report on these pictures was (Dr R W Thompson) "Stomach, No six hour residue. Hook shape. Slightly ptosed—tender over pars media. Rugae very coarse and stringy but parallel. Constant filling defect at outer border of pars media. Motility rapid." Also noted were changes in the small intestine—variation in caliber, segmentation, pocketing.

The history was not consistent with gastric carcinoma. It was recognized that this

patient was a problem in dietary deficiency and that the whole clinical picture might be due to a deficiency disease. A benign tumor of the stomach wall was considered as a possible cause of the radiographic appearance, and in view of the achlorhydria it was decided to explore the abdomen to rule out the possibility of gastric neoplasm.

At operation the stomach was moderately ptosed, but entirely without gross changes. Throughout the wall was thin and pliable. The stomach was not opened, but there was no evidence of thickening in the area in which the filling defect was visualized. Other exploration of the abdomen was without abnormal findings.

Shortly after operation intramuscular injections of liver extract were commenced, giving two cc (equivalent to ten gms of fresh liver) two or three times a week. After discharge, these injections were continued, dilute hydrochloric acid given by mouth, and an adequate dietary regime enforced. Clinical improvement was rapid under these measures, and within two months she had gained twenty lbs. Omission of the liver extract for several weeks resulted in a mild return of symptoms, which disappeared after further liver therapy. She has remained clinically well, with a weight of 120-125 lbs. On May 15, 1936, a re-examination by x-ray showed an outline as seen in Fig 3. The capacity of the stomach is greatly increased (one-third or more), the outline is regular and the borders smooth. Fluoroscopic examination showed normal motor activity. She has remained well with the administration of several doses of liver extract monthly.



Fig 2

Comment

Characteristic changes in small intestine pattern on roentgen visualization were remarkably constant in the seventeen cases of sprue reported by Mackie, Miller, and Rhoades¹. There was striking variations in the contour and caliber of the intestinal lumen. Peristalsis was very irregular with segmental pocketing of the barium which sometimes resembled diverticulae. The mucosa gave evidence of thickening, and the lower ileum appeared to have areas of thickening of the entire wall. There was a prompt disappearance of these changes after specific therapy by liver extract parenterally injected. The oral administration of liver was without value, suggesting a loss of absorptive power in the intestinal mucosa. Fairley⁷ has shown that the derangement of the ileum in this disease is responsible for defective absorption of fat, vitamin D, and calcium.

Experimental avitaminosis in animals results in certain abnormalities of the intestinal tract. Plummer found on withdrawal of vitamin B from the diet that the tonicity of the intestinal musculature became less, as did the amplitude, rate and length of time during which spontaneous contractions occur in the isolated segment.

Whatever part mucosal changes may play in the production of these abnormal intestinal patterns in sprue, it is certain that there is also a marked alteration in the rhythmic contracture of the musculature. This appears to be the essential factor in the reproduction of the same picture in cases of ulcerative colitis and in experimental avitaminosis. The prompt change towards a normal pattern with liver therapy suggests that such intestinal derangement is due to lack of an essential food factor. Miller and Rhoades have advanced the theory that the anti-pernicious anemia substance may be that factor, and that the conditioning of the functional activity of the small intestine may depend upon that substance.

A study of the case here reported seems to indicate that the motor activity of the gastric musculature may be equally affected in various states of dietary deficiency disease. The history is of a particular interest in view of the gradual development of deficiency disease under

observation. This patient had existed on a deficient diet for some years before the first admission in 1934, and her gastrointestinal symptoms were undoubtedly due to a deficiency disease. At that time, however, she had not developed anemia and there was a relatively normal amount of free hydrochloric acid on gastric analysis, although attacks of diarrhea were frequent.

During the thirteen months that elapsed until the second admission, there was an



Fig 3

extraordinary restriction of diet, with the development of a clear-cut deficiency state, manifested by neuritis, numbness of the fingers, visual failure, achlorhydria, and mild anemia of macrocytic, hyperchromic type⁸. On each admission the gastric radiographs presented a constant filling defect on the greater curvature of the stomach. Although the change in x-ray localization and the clinical history did not seem compatible with a gastric carcinoma, on each occasion the appearance was consistent with an intrinsic neoplasm of the stomach. The response to liver and dietary therapy over a period of nine months was as striking clinically as in the disappearance of the abnormal radiographic findings. The stomach not only presents an even contour with smooth borders, but its capacity has greatly increased.

These abnormal x-ray findings are even

more remarkable than those observed in the small intestine, in that the gastric pattern has taken the form of a constant filling defect or deformity which remains localized in one area of the gastric wall over the two to three hour period required for combined fluoroscopic examination and interval taking of films. The operative findings failed to reveal any evidence of mucosal or other hypertrophy in the stomach wall, and in Fig 2 it may be noted that the rugae present a roughly paralleled outline. Hence it must be assumed that the departure from normal form must be due to deranged motor activity. It has been established by Cannon's experiments that the stimulus to motor activity in the body of the stomach is myogenic, i.e., directly originated in and determined by the muscle fibers themselves. Possibly the conditioning of the functional activity of the gastric musculature may also depend on some factor lacking in these cases, which is supplied by liver extract as in an adequate diet.

Snell has stated that the abnormal intestinal patterns in deficiency disease can be entirely accounted for by deficient absorption from the small-intestinal mucosa. This explanation does not apply to similar changes in the stomach. May not the mucosal changes described in the small intestine be secondary to alternating stasis and contraction resulting from motor derangement? It is interesting to note that the radiographs here reported also showed an abnormal intestinal pattern characteristic of deficiency states, which after treatment largely disappeared.

Such radiographic changes as reported here probably will not be frequent. They do, however, illustrate the essential importance of ascertaining the dietary background of such ill-defined gastrointestinal syndromes accompanied by hyperchromic type of anemia. Where a history of dietary deficiency can be established with such suggestive findings as atrophic glossitis, intraoral ulcers, nervous manifestations, or peripheral edema, a therapeutic

trial by parenteral injections of liver and an adequate diet is indicated. The presence of an abnormal gastric pattern as seen in these cases, is not definitely proof of carcinoma. In such cases, providing the patient can be kept under accurate observation and surgical exploration done if he does not show prompt improvement, liver and dietary therapy should be tried for a brief period. In cases of deficiency disease, clinical improvement should be accompanied by a return of the gastric outline towards a normal pattern.

Summary

A case of dietary deficiency disease is reported in which gastric radiographs showed a constant filling defect and irregular outline suggestive of a neoplastic growth in whom surgical exploration revealed a stomach without evidence of gross pathology. A return to normal x-ray appearance and with increased capacity occurred concomitantly with clinical cure under parenteral liver therapy and adequate diet. The patient exhibited the small-intestinal deformities that have been observed in sprue.¹ It is suggested that such alterations in the stomach, and possibly in the intestine, are dependent primarily upon derangement in myogenic motor function, which in turn results from the deficiency of some factor which conditions the functional activity of the stomach and small intestine. This factor seems to be supplied by the parental injection of liver extract and adequate diet.

(HOCKER) 121 E 60 St

References

- 1 Mackie, T., Miller, D. K. and Rhoads, C. P. *Am J Trop Med* 15 571, 1935
- 2 Miller, D. K. and Rhoads, C. P. *Am J Med Sci*, 4 453, 1936
- 3 Snell, A. M. and Camp, J. D. *Arch Int Med* 53 615, 1934
- 4 Mackie, T. T. and Pound, R. E. *JAMA*, 104 613, 1935
- 5 Gross, L. *J Path and Bact* 27 27, 1924
- 6 Plummer, B. A. *Am J Physiol* 80 278, 1927
- 7 Fairley, N. H. *Trans Roy Soc Trop Med and Hyg* 24 133, 1930
- 8 Snell, A. M. *South Med J*, 28 516, 1935

Over a half-million persons are exposed to silicosis in this country. Silicosis has increased over thirteen times — *California and Western Medicine*

The ordinary tests for kidney function continue to give negative results until at least half the kidney is destroyed — *American Journal of Diseases of Children*

TREATMENT OF THE COLLES' FRACTURES

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Among the unprecedented advances in traumatology during recent years, there has been very little interest shown in Colles' fractures. Our chief surgeons have been too busy with their gadgets for curing fractured neck of femur or doing arthroplasties to bother with this very common and most instructive lesion, and consequently have relegated its care to the intern or resident. Thus it has been my privilege to observe the wide differences of opinion as to how these cases should be treated and to have taken part in the treatment of several hundred of them.

The fact that all methods of treatment which follow the fundamental outline of reduction, immobilization, and physiotherapy, yield some excellent results, is due to the fact that there is considerable difference between the pathology of different Colles' fractures.

The term Colles' fracture, as used today refers to any compression or extension fracture of the lower end of the radius. The details of the pathology vary with the patient's individual bone structure, as determined by his age, sex, occupation, etc., with the amount, direction, and duration of the fracturing force, and with the state of muscle tone and the position of the wrist at the time of fracture.

This statement implies a rather wide variety of lesions when the details of the pathology are considered, and experience shows this to be true.

The shortening which occurs in Colles fractures differs from the shortening in shaft fractures in that it is not due to overlapping of the fragments, but to a crumbling, or "microscopic comminution" of the bone along the fracture line. The angulation is dependent more upon the varying amounts of comminution in different locations than upon malposition of the fragments. Thus if one-quarter inch of bone is fragmented by comminution of the ventral surface, while three-quarters inch is destroyed on the dorsum, there will be about one-half inch

shortening and a dorsal tilt of the distal fragment of several degrees, without overlapping and with considerable stability in the new position.

The small intervening comminuted fragments are often not demonstrable by x-ray and may be reabsorbed or take part in the callus formation of the healing process. Their presence probably accounts in part, for the rapid firm union which generally follows fractures through cancellous bone.

Such fractures are generally more stable and would heal more rapidly in this original position than in any other which could be obtained by attempts at reduction. Some surgeons, realizing this fact, make no attempt to improve the position unless the amount of angular deformity precludes the possibility of a fair functional result. They simply stabilize the fracture as it is, with a leather or adhesive wrist band, and immediately start physiotherapy. Many of these ugly looking wrists show surprisingly good functional results to justify the procedure.

At this point let me recall to you the fact that other things being equal, the amount of functional disability resulting from a Colles' fracture is directly proportional to the amount of the uncorrected angular deformity, so that a study of the angular displacement in the lateral x-ray view is the most important evidence as to whether or not reduction is necessary or satisfactory after it has been done.

Particularly in elderly people it is often unwise to disturb the fracture if this angular deformity is not marked. This also applies to younger persons showing an arthritic tendency.

Others lay more stress on anatomical restoration. By traction and manipulation, they perch the distal fragment precariously with its anteromedial corner resting on the most distal projection of the proximal fragment and suspend it there until the surrounding areas have filled in with bone. They suspend it

Read before the Clinical Society of Morrisania City Hospital, January 27, 1937

there by ligaments and tendons made tense by immobilization in an extreme position of flexion, pronation, and ulnar deviation at the wrist. It frequently takes six weeks, or more, for the areas of "microscopic comminution" to become filled with firm callus, but they are rewarded by a beautiful restoration of normal contour, although the hand and fingers are a bit stiff and useless.

Obviously the best judgment calls for some intermediate course in most cases. Many surgeons have adopted a more or less routine middle course which they use regardless of the individual peculiarities of the case under consideration. Perhaps the most popular is a manipulative reduction followed by a period of immobilization in the Cotton-Loder position. They change this after a prescribed length of time of four to twenty-one days to a neutral position, and some use a third period of immobilization in the cock-up position. It is generally agreed that the fingers should be actively exercised from the first.

The Cotton-Loder position is unquestionably a very disabling form of treatment and, even in a normal wrist, will cause pain and swelling, and prevents a wide range of finger motion. For that reason we reserve that form of treatment for what we find to be rare—those cases which cannot be adequately treated otherwise.

We also cannot believe that any case actually requiring the Cotton-Loder position for maintenance at the time of reduction, will have increased in stability sufficiently in four to seven days to permit a change to the neutral position at that time without displacement. Such an early improvement in stability is contrary both to experience and to our knowledge of the physiology of repair. Consequently, when a position of extreme flexion and ulnar deviation is found necessary to maintain a satisfactory reduction, we continue its use for ten to fourteen days.

The ability to determine the maximum amount of extension which is compatible with the maintenance of a satisfactory reduction depends upon two simple clinical signs which can be elicited at the time of reduction.

The first of these is a clinical test for reduction. Except in the very obese pa-

tient, the fracture line and the posterior surfaces of the two fragments can be easily palpated under anesthesia after pressing away the edema and hematoma. Before reduction there is a distinct ledge palpable, formed by the distal fragment overhanging the proximal, and there is felt to be a distinct angulation between the posterior surfaces of the two fragments which is proportional to the amount of posterior tilt of the distal fragment.

By direct traction on the distal fragment, followed by firm pressure exerted anteriorly while traction is still maintained, the displacement is corrected. This is proven clinically by a disappearance of the ledge and a realignment of the two fragments, as determined by palpation of the posterior surface of the radius. Occasionally, if there has been too much "microscopic comminution," the ledge cannot be completely obliterated, but the alignment must be corrected in order to restore the normal orientation of the distal articular surface of the radius.

At the end of the manipulation, the hand is in the Cotton-Loder position. Now, without external support, but with gentle palpation of the posterior surface of the radius to determine any change in the contour of the bone, the wrist is slowly extended. If a moderate cock-up position can be obtained without any change in the position of the fragments, the extremity is immediately immobilized in that position. Generally, however, at some point in the process of extension there is felt (and seen) a sudden backward shifting and tilting of the distal fragment, frequently with the production of audible crepitus. The degree of extension at which this occurs is carefully noted and, after correcting the reduction, the extremity is immobilized in slightly less extension than the point at which the reduction slipped on the first trial. Occasionally the fragments are felt to slip almost immediately after the extreme flexion is released, and in these, the position of the distal fragment should be shifted slightly in an attempt to find a more stable position for it against the end of the proximal fragment. Frequently a fragment which is very unstable after the first reduction, can be made to hold a satisfactory position by applying some

impacting force and moving the fragments slightly from side to side while maintaining the corrected position and alignment by a good grip on the two fragments

If a position of stability cannot be found, the extremity is regrettably immobilized in the Cotton-Loder position and kept there for ten to fourteen days, the time depending mainly upon the findings at the time of reduction

It is obvious that with such a plan of treatment there is great danger of losing the reduction during the application of splints or under loose or poorly fitting splints. This is prevented by the use of anterior and posterior molded plaster splints applied in the following manner

The splints are not made until we are ready for them and are made from rather slow-setting plaster. They are immediately applied to the forearm and hand with the wrist in ten to fifteen degrees more flexion than the predetermined optimum. They are immediately secured in position by one or two layers of gauze bandage carefully applied. We then support the fragments by pressure exerted over the dorsum of the distal fragment by the thumb, while the fingers of the same hand are held flat against the ventral surface of the proximal fragment. We then carefully extend the wrist to the desired amount with our other hand and hold this position and pressure steadily until the plaster is hard. The splinted forearm and hand are then securely wrapped with gauze bandage and adhesive, and the slight depressions caused by the pressure of thumb and fingers continue to exert pressure where it is most needed throughout the period of immobilization.

Any fracture which is immobilized with the wrist in any degree of flexion is changed after ten days to two weeks. New splints are applied with the wrist in as much extension as can be obtained without causing pain. If possible, daily physiotherapy is started at this time, consisting of active motion, whirlpool baths, radiant heat, and massage.

Immobilization is continued until the point tenderness at the fracture line has disappeared, usually from three to five weeks.

No passive motion of any sort is per-

missible until after this local tenderness has disappeared. This sign has been found much more reliable than the time interval or the x-ray findings in determining the completion of firm union, both here and elsewhere.

Before closing let me say a few words about anesthesia. General anesthesia has certain obvious disadvantages. Local anesthesia consisting of the injection of novocain directly into the fracture line, has lately been very popular. However, it has three definite disadvantages. The introduction of the needle into the fracture site is very painful. The distention caused by the injection of the novocain is very painful. And there is the very real danger of introducing infection by thus changing a simple fracture into a compound fracture. We feel that a nerve block anesthesia of the radial, medium, and ulnar nerves in the region of the elbow is a much safer and more painless procedure, and it does not obscure the physical signs and increase the difficulty of reduction by further distending an already swollen area.

Summary

1 Every Colles' fracture should be considered an individual problem, and not treated by any routine procedure.

2 The treatment which will produce the best anatomical result will often not produce the best functional result, and careful judgment is necessary to assay the relative values of conflicting indications.

3 X-ray and physical examination are not enough to determine the significant details of the pathology, but certain signs which may be elicited during manipulation under anesthesia are the most important indications as to the best type of treatment.

4 Care in the application of molded plaster splints is of utmost importance in maintaining reduction in a position compatible with a good functional result.

5 Disappearance of local point tenderness over the fracture line is the most reliable safe test for solid union.

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there by ligaments and tendons made tense by immobilization in an extreme position of flexion, pronation, and ulnar deviation at the wrist. It frequently takes six weeks, or more, for the areas of "microscopic comminution" to become filled with firm callus, but they are rewarded by a beautiful restoration of normal contour, although the hand and fingers are a bit stiff and useless.

Obviously the best judgment calls for some intermediate course in most cases. Many surgeons have adopted a more or less routine middle course which they use regardless of the individual peculiarities of the case under consideration. Perhaps the most popular is a manipulative reduction followed by a period of immobilization in the Cotton-Loder position. They change this after a prescribed length of time of four to twenty-one days to a neutral position, and some use a third period of immobilization in the cock-up position. It is generally agreed that the fingers should be actively exercised from the first.

The Cotton-Loder position is unquestionably a very disabling form of treatment and, even in a normal wrist, will cause pain and swelling, and prevents a wide range of finger motion. For that reason we reserve that form of treatment for what we find to be rare—those cases which cannot be adequately treated otherwise.

We also cannot believe that any case actually requiring the Cotton-Loder position for maintenance at the time of reduction, will have increased in stability sufficiently in four to seven days to permit a change to the neutral position at that time without displacement. Such an early improvement in stability is contrary both to experience and to our knowledge of the physiology of repair. Consequently, when a position of extreme flexion and ulnar deviation is found necessary to maintain a satisfactory reduction, we continue its use for ten to fourteen days.

The ability to determine the maximum amount of extension which is compatible with the maintenance of a satisfactory reduction depends upon two simple clinical signs which can be elicited at the time of reduction.

The first of these is a clinical test for reduction. Except in the very obese pa-

tient, the fracture line and the posterior surfaces of the two fragments can be easily palpated under anesthesia after pressing away the edema and hematoma. Before reduction there is a distinct ledge palpable, formed by the distal fragment overhanging the proximal, and there is felt to be a distinct angulation between the posterior surfaces of the two fragments which is proportional to the amount of posterior tilt of the distal fragment.

By direct traction on the distal fragment, followed by firm pressure exerted anteriorly while traction is still maintained, the displacement is corrected. This is proven clinically by a disappearance of the ledge and a realignment of the two fragments, as determined by palpation of the posterior surface of the radius. Occasionally, if there has been too much "microscopic comminution," the ledge cannot be completely obliterated, but the alignment must be corrected in order to restore the normal orientation of the distal articular surface of the radius.

At the end of the manipulation, the hand is in the Cotton-Loder position. Now, without external support, but with gentle palpation of the posterior surface of the radius to determine any change in the contour of the bone, the wrist is slowly extended. If a moderate cock-up position can be obtained without any change in the position of the fragments, the extremity is immediately immobilized in that position. Generally, however, at some point in the process of extension there is felt (and seen) a sudden backward shifting and tilting of the distal fragment, frequently with the production of audible crepitus. The degree of extension at which this occurs is carefully noted and, after correcting the reduction, the extremity is immobilized in slightly less extension than the point at which the reduction slipped on the first trial. Occasionally the fragments are felt to slip almost immediately after the extreme flexion is released, and in these, the position of the distal fragment should be shifted slightly in an attempt to find a more stable position for it against the end of the proximal fragment. Frequently a fragment which is very unstable after the first reduction, can be made to hold a satisfactory position by applying some

impacting force and moving the fragments slightly from side to side while maintaining the corrected position and alignment by a good grip on the two fragments

If a position of stability cannot be found, the extremity is regretfully immobilized in the Cotton-Loder position and kept there for ten to fourteen days, the time depending mainly upon the findings at the time of reduction

It is obvious that with such a plan of treatment there is great danger of losing the reduction during the application of splints or under loose or poorly fitting splints. This is prevented by the use of anterior and posterior molded plaster splints applied in the following manner

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IMPORTANCE OF A ROUTINE WASSERMANN TEST IN PRIVATE PRACTICE

Case Reports

MARIE PICHEL WARNER, B S, M D and BENJAMIN W WARNER, M D,
Bronx

It is the custom in our office to take blood for routine Wassermann tests on all new patients presenting themselves for examination for relief of symptoms, for a general physical examination, for a premarital examination, and on all prenatal patients, in fact, all patients excepting emergencies and those who come for special advice, such as contraception *per se*. The specimens of blood are sent to the Department of Laboratories, Department of Health of the City of New York, where serologic tests (Wassermann tests) are performed free of charge.

We are convinced of the wisdom and necessity of routine Wassermann tests for syphilis in private practice. We emphasize this fact because in the present drive to eradicate syphilis, there is a controversial issue as to whether the private practitioner is qualified or willing to actively participate in diagnosing and treating syphilis, or whether the problem can be better handled through the medium of clinics. The private practitioner, with the cooperation of the local Departments of Health, can and should be of invaluable aid in this newest public health drive.

In our last five hundred and twenty-eight private patients in our office on whom Wassermann tests were performed, seven were found to have syphilis, which was unknown to them. In our small series there is an incidence of 1.32%, representing patients with latent, undiagnosed syphilis. We have excluded those patients with positive serology who knew or suspected that they had syphilis. Our patients represent a cross-section of the middle class social and economic group which constitutes the bulk of all private practice. The status ranged from domestics to successful professional and business men and women.

The patients with positive serology, with the exception of one case of congenital lues, had complained of vague symptoms for many years and had consulted many physicians without a diagnosis of their condition being made or relief given. Excluding the case of congenital syphilis with definite stigmata, there was only one other case with clinical evidence of syphilis, i.e. Argyll Robertson pupils. Thus, in five patients syphilis was discovered because of the routine habit of doing a Wassermann test and not relying on clinical indications or a history of luetic infection. A recent experience prompted a review of our records and this report.

A five weeks old baby was brought to the office for feeding advice. The baby was marasmic and presented clinical symptoms and signs of congenital syphilis. There was difficulty in obtaining blood from the baby and a Wassermann was done on the mother's blood. The result was a four plus positive reaction. The mother had been a private patient of another physician and had been delivered in a private hospital but had never been given a prenatal Wassermann test. She had been delivered six years previously of another child who was living, and had not had a prenatal Wassermann test done during that pregnancy. A Wassermann test performed on this six year old boy resulted in a three plus reaction. This woman had had another hospital admission as a private patient for a laparotomy three years previously and a Wassermann had not been performed. The father had a negative blood Wassermann, but is being studied further. The family belongs to that economic-social stratum or middle class group that represents the substance of private practice.

This case constitutes a direct challenge to private practitioners to perform routine serologic tests on every pregnant woman. The time will come shortly

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when congenital syphilis will be an extremely rare occurrence. In fact, it will be as rare as ophthalmia neonatorum if physicians perform routine Wassermann tests as zealously as they practice prophylaxis for the eyes, without regard for the social or economic status of the patient. The concept that syphilis exists only in the clinic type patient is a dangerous one and lulls the physician into a false sense of security. In the words of Stokes, "The physician's index of suspicion is lowered." Women would accept a routine Wassermann prenatally in order to have a healthy child, just as they accept all the inconveniences and discomforts of their pregnancy.

A questionnaire sent by the American Social Hygiene Association¹ to two hundred and fifty prenatal clinics reported that ninety-three per cent of the clinics perform a routine Wassermann test. The others use the test when indications exist. This latter method overlooks many cases. A questionnaire was likewise sent to two hundred and fifty physicians, all members of one or another association of obstetricians. Of the eighty-two who responded, forty-two stated that they make blood tests on all pregnant patients. Forty said that they do not. The percentages of positives ranged from 0 to 35 per cent. Those physicians who have found no positive reactions are just as emphatic as to the importance of routine testing as are those who report a higher percentage.

There is nothing novel to report about the variability and multitude of symptoms that syphilis can cause, the number of diseases it may simulate, or its latency or asymptomatic nature. Need we repeat the words of Osler that were impressed upon us so indelibly in our student days and are now forming the theme for lay publicity—that "Syphilis is the great imitator?" It is also repetitious to cite the following cases that surely must occur in every physician's practice, yet Wassermann tests are not performed.

A white woman, fifty-five years of age, married, had thirteen living children. She came from a neighboring state and was visiting her son in New York. She complained of pain and stiffness in her knees.

Examination revealed obesity, lowered metabolism, and large varicosities of both lower extremities. There were no neurologic signs or symptoms and it seemed apparent that the pain in her knees was due to either her lowered metabolism or her varicosities. A routine Wassermann test gave a four plus result. Under proper therapy the pains in her knees disappeared. The source of infection as in the other case was unknown. The husband and all the children had negative serology.

A white man, aged forty, married, presented symptoms and signs referable to the central nervous and cardiovascular systems. He had mental changes, Argyll Robertson pupils, and a dilated, tortuous aorta. Wassermann reaction was four plus. One of us (BWV) had been present at this man's wedding sixteen years previously and knew his bride ever since childhood. Fortunately, the wife was not infected, but the husband's mental and physical deterioration disrupted the marriage. A premarital physical examination would have prevented this medical and social catastrophe.

Extensive education of both the physicians and the public is necessary before this newer phase of preventive medicine, namely, a premarital physical examination, becomes an established procedure. Passage of laws compelling premarital Wassermann tests without the intelligent cooperation of the public may fail. e.g., Connecticut passed a law with such a requirement, but we understand that the couples cross the state line to New York for their marriage ceremony. If the physicians use smaller caliber, sharp intravenous needles so that there will be no pain or psychic trauma associated with a venepuncture and the drawing of five c.c. of blood, and if more educational work were done, the public would cooperate more willingly. It is pleasing to note that in our premarital physical examinations we have not found, to date, any positive serology. Unfortunately, not all prospective grooms present themselves for examination, nor is a Wassermann done routinely on prospective brides. Many expectant brides consult one of us (MPW) at the last moment, a day or even a few hours before the wedding, and in such instances we do not do a blood Wassermann unless requested. The ideal state will be attained when the

prospective bride and groom present themselves in ample time before marriage to a physician or to their respective physicians interested in this newer phase of medicine, for a physical examination including a blood Wassermann and such special examination and advice as may be necessary or sought as preparation for marriage

Two cases were diagnosed in domestic help. In one patient the disease was symptomless and in the other there were generalized arthritic pains, vaginal discharge, and a history of an illegitimate stillbirth. The question of routine Wassermann tests on all domestic help is very important, irrespective of the individuals' race or color. Both of these patients were negro women and had mixed infections of gonorrhea and syphilis.

Two other cases were obese white women in their late forties who had vasomotor and nervous symptoms referable to the menopause and without any clinical indications of syphilis. These women complained of headaches, fatigue, hot flushes, and requested dietary advice in order to reduce. There were no clinical indications of syphilis but a routine test gave positive results. Under therapy many of the symptoms, especially the headaches, disappeared.

Conclusion

There is an active, concerted attempt on the part of health authorities to eradicate syphilis. The health authorities are stressing the need and importance of clinic and hospital facilities for the task. Only recently are hospitals recognizing the importance of routine serological tests in all of their outpatient and inpatient

departments. It is believed that only by diagnosing the individual case will syphilis be controlled and the incidence materially reduced.

Many of the authorities are unpromising and impatient in their criticism of the role of the private practitioner. Much of this criticism is deserving. The physician must become more syphilis conscious, his "index of suspicion" must be raised, and the Wassermann test must occupy the same place in a routine medical examination as taking temperature or a urine analysis.

Let us not, as private practitioners, wait until we are regimented into the plan for syphilis control, but rather let us voluntarily enlist and expand our services. In recognizing and healing syphilis we are diagnosing and curing the patient and acting further as individual health officers in the broader scheme of public health. We are consulted in confidence and privacy by the distracted and unfortunate patient who is afflicted with venereal disease. With cooperation of the public health facilities we can render efficient, satisfactory service.

Acknowledgment

We are grateful to Mr. John Koopman of the New York City Department of Health for his cooperation and assistance in compiling our records of Wassermann tests.

15 E. MOSHOLU PARKWAY, N

References

1. Exner, Max J. *J.A.M.A.*, 106 488, 1936

THERE ARE SPIRITUALIST QUACKS, TOO

False spiritualistic mediums and quacks were attacked at a spiritualist convention in Rochester in the week previous to the meeting of the State Medical Association. Such unscrupulous spiritualistic practitioners are outside the pale of organized spiritualism, they are irregular, and are likely to give deleterious advice, it seems. The public should stick to the old-line, regular, authorized, orthodox mediums. Fortune tellers who use their office for profit were con-

demned as unethical. Nor was that all denounced along with the quacks and fortune tellers were the M.D.'s. The Rev. E. Ann Taylor, of Brooklyn warned mediums to avoid medical diagnosis and declared the State Medical Society is ready to "bear down on all who make use of spiritual gifts to tell people of their personal ills." It is hoped that even after this alarming information the State Medical Society will bear up.

CARCINOID OF APPENDIX

Ruptured Ovarian Cyst

JULIUS LEBOVITZ, M D, *Woodside*

The carcinoid tumors have long fascinated the clinical and pathological investigators, because of the peculiar characteristics of these tumors. We have the atypical cell proliferation and infiltration so characteristic of carcinoma, yet lacking the malignant features, such as metastasis and recurrences. Even the cellular proliferation and infiltration do not bear the mark of the highly destructive type but merely additional cell deposits to the original tissue structure or substitution of the maternal tissue grounds, secondly, there is a definite tissue limitation of their proliferative and infiltrative tendencies, such as endothelial cell layers. In other words, we are dealing here with tumors whose morphological appearances are that of a carcinoma yet lacking some of the biological characteristics and behavior of the carcinomatous cell.

The difference probably lies in some factor or factors (endocrine and others) which will bring about some cytoplasmic changes in the cell in an organ where normally and ordinarily, according to their physiological functions, cellular destruction, reproduction, and replacement are taking place. But, according to these cytoplasmic changes which are not known to us, in one case we find a cell of lesser malignant characteristics and in another, highly malignant features determining the benignity or malignancy of the tumor. The carcinoid tumors in the majority of cases are of the benign type. Merlin describes the condition for the first time in 1838. Rokitsansky in 1867 described four cases, calling them colloid carcinomas. Miller gave it the name carcinoid or pseudocarcinoma analogous to the Oberdorfer's carcinoid occurring in the small intestines. Moskowitz¹ reviewing the literature, collected eighteen cases including his own. Jackson² in 1923 collected three hundred seventeen cases in the literature. Its frequency is

known to be about one-third to one-half of one per cent of the appendices examined. McCarthy reporting 8,039 appendectomies from the Mayo Clinic found forty cases of carcinoid of appendix which is approximately one-half of one per cent. The majority of cases reported appeared between the third and fourth decade, more frequently in female than in male, probably due to the greater proportions of appendectomies performed in the course of gynecological operations. Grossly these tumors appear as localized tumescences, particularly on the tip or diffusely involving the entire appendix, obliterating the lumen. They may be of the scirrhus type or colloid type or mixed. At times the involvement is so small that it may be entirely overlooked. The tumors appear yellowish in color. Histologically you find epithelial cells grouped in the submucosa extending into the muscularis, very rarely in the subserosa or in the serosa. The most complete analysis came from Masson³ in 1928 who examined fifty cases. According to Masson, the carcinoid cells result from the proliferation of the epithelium of the Lieberkuehn crypts, the so-called argentaffin cells. According to him the carcinoids are tumors of the chromaffin system. The name argentaffin comes from the ability of the granules of the cells to reduce ammoniacal solution of silver.

Case Report

H M, twenty-four years old, married, was admitted to the Boulevard Hospital November 8, 1936. Patient had the usual childhood diseases, no other important illnesses. Menstruation started at the age of twelve, twenty-eight days type, lasting four or five days. Last menses started four days prior and still menstruating at the time of admittance to hospital. For two years she complained of pains in the right side, independent of menstrual periods. A G I series

Read before the Boulevard Hospital Clinical Society, January 27 1937

taken at the Telephone Company proved to be negative except, as the report stated, a delayed emptying of the appendix. On the day of admission, about 11 A.M. patient was suddenly seized with pain, cramplike in character, in the R.L.Q. which increased in intensity, she had vomited several times. On physical examination at 5 P.M. an acutely ill patient was found with definite rigidity in R.L.Q. and rebound tenderness. Bimanual examination was rather unsatisfactory because of hypersensitivity of patient, yet some resistance was felt on the right side of uterus. Temperature 99.8, pulse eighty-eight, blood pressure 120/74. I advised hospitalization. Patient was admitted to hospital 5:20 P.M. with diagnosis of acute appendicitis, and possible ruptured right ovarian cyst. RBC 3,800,000, WBC 12,800, eighty per cent poly, urine 2+ acetone. Due to the patient's condition, laparotomy was decided upon.

Under gas oxygen anesthesia a midline incision was made, the peritoneum appeared bluish in color, indicating free peritoneal bleeding. Peritoneum was opened, the cavity containing a good deal of free blood and also numerous blood clots, which were removed. Uterus was found normal in size and position, left adnexa normal, right tube normal, right ovary showed a small apple-sized corpus luteum cyst. The upper surface of the cyst showed a half a dollar rent from which active bleeding came. The right ovary was removed, and the pedicle ligated. I proceeded to explore the appendix, which was found in a retrocecal position and completely retroperitoneal. The parietal peritoneum on the lateral aspect of cecum incised and appendix removed, parietal peritoneum resutured, abdomen closed in layers. Patient made an uneventful recovery, left the hospital in nine days, and at present is fully recovered and returned to her work.

Pathological Report (Dr Carl Boettiger)

Nature of specimen Appendix and left ovary. Appendix fifty by ten mm. The distal twenty mm is covered over with a dense fibrous membrane. On section the lumen is completely closed. The mucosa cannot be differentiated. Ovary seventy by thirty-five by thirty mm. One section consists of rim of ovarian tissue ten mm. in thickness surrounding a cavity with contents evacuated. The lining membrane is smooth.

Pathological Report Section of appendix, the mucosa is tremendously hyperplastic showing irregularly shaped acini and chords of cells filling up the entire lumen. The lymphoid structures are absent. In the muscularis and serosa are irregularly shaped chords of cells. Ovary shows a number of small retention cysts. One large cyst cavity lined by several layers of luteal cells.

Diagnosis Luteal cyst of ovary. Probable carcinoma of appendix.

P. S. This type of tumor is usually of low malignancy and does not spread or metastasize. Its removal will probably be all that is required.

Summary

1 A case of carcinoïd of appendix is presented which was removed in the course of a laparotomy for a ruptured luteum cyst.

2 The carcinoïd invades the subserosa and partially the serosa which is a rare occurrence.

4920-43RD AVE.

References

- 1 Moskowitz, *Annals of Surgery*, June, 1903
- 2 Jackson, *Archives of Surgery*, 6 653, 1923
- 3 Masson, P. *Am Jour Path.*, 4 181, 1928
- 4 Meyer, L. B. *Surg Gyn and Obs.*, 1935

INJUSTICE TO A CHIROPRACTOR

A California chiropractor recently complained to *California and Western Medicine* because it had listed him as "guilty of burglary, probation three years." "The notation is incorrect," he wrote indignantly, "I was charged with receiving stolen goods—not burglary." The editor thereupon looked into the matter and found this police report:

Upon information that the Los Angeles Wholesale Drug Company was losing merchandise over the weekend, we staked out on the place and observed Clark the "Doctor of

Chiropractic" and Codefendant Beswick drive up in an Essex sedan, belonging to Codefendant Beswick, observed defendant enter this store and remove seventeen cases of assorted drugs. Apprehended Beswick at Twelfth and San Pedro, and we came back with him and found this defendant Clark hiding behind packing cases upstairs.

"In accordance with the doctor's request, we are glad to state that he was only found guilty of receiving stolen goods and not of burglary," says the California editor.

SEQUENCE OF INFECTIOUS DISEASES IN THE UPPER AND LOWER RESPIRATORY TRACT

Anatomical and Clinical Considerations

NATHAN SETTEL, M D, F A C S, *New York City*

Adjunct Professor in Rhinology, New York Polytechnic Medical School and Hospital

In our consideration of the respiratory system and in our studies of clinical lesions, both etiologically and pathologically, we have been accustomed to make frequent reference to the upper respiratory tract and the lower respiratory tract. It seems obvious, however, that some additional classification and nomenclature is required for a complete understanding and appreciation of the various independent and interrelated diseases that occur so frequently in the different sections of the respiratory apparatus.

The air passages, as is well-known, begin at the vestibule of the nose and terminate in the pulmonary alveoli for inspired air, and conversely for expired air. Between these two terminals the route lends itself conveniently to a threefold anatomical and physiological classification. The nose, the accessory sinuses, and the pharynx constitute the upper respiratory tract, or, as I have chosen for the sake of convenience to call it, the *upper respiratorium*, while the trachea, bronchi, and lungs make up the lower respiratory tract, or *lower respiratorium*. Between these two divisions, and belonging to neither, lies a third the *intermediate* or *central respiratorium*, consisting of the larynx, which has a specialized and distinct function, setting it apart from the other two.

Physiologically, each division has a more or less independent and somewhat dissimilar function to perform, although they all unite in their chief object, which is to facilitate the passage of prepared pure air to its ultimate destination. The function of the upper respiratorium is a physical one, that of filtration, lubrication, and heating of the inspired air, while that of the lower respiratorium is a chemical and biological one, consisting of the delivery to the pulmonary alveoli of the prepared air for oxygenation of the blood and systemic distribution to the tissues.

Between these two sections, the intermediate respiratorium has, in the main, a mechanical function, which is carried on chiefly by the sphincter action of the glottis, which controls the quantity and pressure of the air intake, and, in addition, utilizes during expiration the latter property in the other laryngeal function namely that of phonation.

Factors Concerned in the Pathologic Sequence

There are good reasons to believe that, within the limits of the respiratory system, morbid conditions tend to pass from the upper to the lower respiratorium rather than in the reverse direction. The factors concerned in this pathologic sequence are

- 1 Aspiration of secretions with their bacterial products, by gravity and suction.

- 2 Muscular action in the pharynx, as in swallowing, hawking, etc.

- 3 Ciliary action in the upper and lower respiratoria, except in the middle and lower pharynx, where the epithelium is of the stratified squamous variety due to digestive function.

- 4 Neurogenic tonus of the sympathetic and parasympathetic systems, both of which supply the organs of respiration.

- 5 Vascular and lymphatic pathways for the spread of infection.

Aspiration of secretions. There is today experimental as well as clinical evidence that secretions pass from the upper to the lower respiratorium by simple inhalation aided by the forces of gravity.

The first author to suggest the possibility of this immediate extension of infection through the respiratory tube appears to have been St. Clair Thomson,¹ who in 1914 stated his belief that bronchorrhea might be the result of a chronic suppuration in one or more of the nasal accessory sinuses. Two years later the two French surgeons, Rist² and Sergent,³ working independently, made the observation that soldiers treated during the World War for pulmonary

tuberculosis were in a great many cases suffering not with tuberculosis but with bronchiectasis or chronic bronchitis, associated with sinus disease, and that when the sinus trouble was cleared up, the bronchial symptoms disappeared. Sergeant said that one-third of his supposed tuberculosis cases were "false tuberculosis." Rist pointed out the resemblance between the mode of infection passing from sinuses to bronchi and that which occurs in the passage of infection from bladder to kidneys. Both of these surgeons had the experience of seeing the intrathoracic disturbances clear up when the nasal trouble was corrected.

Mullin and Ryder⁴ in 1919 introduced small amounts of India ink into the nose of rabbits, holding the animals on their back with nose elevated. The experiments revealed that in all cases there were traces of ink in the nasal fossae associated with blackening of one or both lungs, when the animals were killed after periods ranging from one half hour to twenty-five days following the introduction of the ink. In two rabbits an emulsion of human tubercle bacilli was given similarly through the nose, and these micro-organisms were found, just like the ink, within the lungs some weeks later, together with a state of moderate or advanced tuberculosis. The fact that there was no ink in the mesenteric nodes, but an abundance in the bronchi and lungs, made it evident to the authors that the lung findings in this series of experiments were in all cases due to pure uncomplicated inhalation or aspiration and not to lymphatic transmission.

Quinn and Meyer⁵ in 1929 introduced iodized oil into the nostrils of sleeping patients with a view to proving whether aspiration occurs into the lower respiratorium. In five of eleven such patients there was direct evidence that the oil thus introduced was aspirated into the lung parenchyma or the bronchi with the greatest ease, and this occurred repeatedly in two of the individuals. In the other six, lack of sound sleep vitiated the experiment. It appears from the results in five patients that the swallowing reflex during sleep may be sufficiently inhibited for fluids to be aspirated into the lungs. These authors observed that when the person lies on his side, ideal conditions exist for drainage of the antrum of the opposite side, if he lies on his back, drainage of both antrums is favored. A large majority of the patients in question had maxillary sinusitis with frank pus, as associated with bronchiectasis.

2 Muscular Action in the Pharynx
Sinus infection never stays absolutely at home. The close proximity of the naso-

pharynx and the normal physiologic play of its muscular system makes it inevitable that such actions as swallowing, hawking, clearing the throat, etc., should invite the dissemination of morbid sinus secretions and result in colonizations within the pharyngeal mucosa. Once established here, these secretions by their irritating action cause itching and discomfort which the patient attempts to relieve by hawking, thus inviting further microbial aggression.

3 Ciliary Action Under normal conditions the ciliated surfaces do not become infected when pathogenic organisms gain access to them. The cilia are the chief mechanical factors in the drainage and defense of the mucosa. Their work is rapid, powerful, and effective, providing in the more active regions of the nose a complete exchange of the film of secretion over the surface about one in ten to fifteen minutes, and about once an hour in the inactive regions. They work independently of gravity and always in a spiral direction, removing tremendous loads of secretion with great celerity and dispatch. According to Hilding⁶ the rapidity of their beat in the human nose amounts to 250 cycles per minute. McDonald and his coworkers have pointed out that the ciliary epithelium of the respiratory tract, alone of all the visceral systems, lacks protection from its environmental contacts. It is impinged upon directly by the inspired air, which is teeming with micro-organisms, dust, and all manner of pollutions. Ordinarily these impurities do not affect the ciliated surfaces, but are easily disposed of in a short time without colonization and invasion.

But there are certain abnormal conditions under which this invasion may occur—conditions which establish a *locus minoris resistantiae*—and the whole system may then be thrown out of gear. Among these conditions is exposure to cold air, which, being dry, may paralyze the cilia by dehydration and by vasoconstrictor reflex from skin to mucosa. According to McDonald,⁷ any loss of fluid has this inhibiting effect upon the cilia. His experiments in cats and rabbits showed that, although under these conditions of cold and dryness the individual cilia may keep on whipping they do it ineffectively; they are unable to perform their normal defensive function in the nasal and pharyngeal mucosa, and take on an increased power of absorption. On the other hand, *excessive moisture* also modifies the extent and direction of ciliary propulsion, by causing gravity currents which flow above those produced by the cilia, and which take a direction determined by the shape and position of the part in question.

Thus the failure of the ciliary mechanism to perform its normal function leaves the mucosa of the upper respiratorium a prey to gravitational infective currents, tending to pass downward into the lower respiratorium.

4 Neurogenic Factors Since the respiratory system is supplied by both sympathetic and parasympathetic nerve fibers, it is necessary for these to be in a state of proper balance to assure normal functioning. A marked acceleration of ciliary action results from stimulation of the pharyngeal sympathetic, and a decided retardation from stimulation of the corresponding parasympathetic innervation, the latter having a depressant effect on the motion of the cilia. Once the coordination of these antagonistic nervous elements is broken, the defenses of the respiratorium are lost, the delicate adjustment is deranged, and there is nothing to prevent the infection that may be present in the sinuses from taking its gravitational course downward toward the bronchi. The influence exerted upon the vegetative nervous system of the entire upper and lower respiratoria through chronic nerve irritation induced by the inflamed mucosa of the nasal sinuses has not received the attention that it merits. Many of the symptoms that have been attributed to the absorption of toxic products from the infected sinuses can be laid at the door of direct nerve irritation arising from an inflamed sinus mucosa.

5 Vascular and Lymphatic Pathway for Spread of Infection By means of further experiments, Mullin and Ryder⁴ were able to observe the route taken by India ink which they now injected by puncture into the maxillary sinus in rabbits and the frontal sinus in cats, with care to inflict wounds that should serve as points of entry for the ink into the lymphatic system. After killing the animals they were able to trace the carbon deposits absorbed by the lymphatics over a route that passed by way of the submaxillary and internal jugular lymph nodes, lymph ducts, and great veins to the right side of the heart, and thence to the lungs. In repeated experiments this same course was always taken by the ink particles, without deviation. Clinically the most important lymph glands seemed to be the submaxillaries and internal jugular or carotids, the latter corresponding to the chain of deep cervical nodes in man, including the retropharyngeal. These workers were of the opinion that, irrespective of whether the infection spread by direct continuity or through the lymphatics, the most important part played in the production and maintenance of peribronchial infection was that carried out by the bronchial and mediastinal

glands. It was observed that the sequence in the extension of infection was a passage through the glands which transport the bacteria and their toxins to the bronchi and lungs, namely the peritracheobronchial, the intertracheobronchial, and the interbronchial. The first of these groups was intimately related to the trachea, bronchi, inferior vena cava, the lung surface, pulmonary artery, and the recurrent laryngeal and vagus nerves. The second group consisted of ten or a dozen small glands having anatomic relations to the bifurcation of the trachea above, to the pericardium in front, and to the pulmonary plexus and anterior surface of the esophagus, behind. The third group of glands was found completely buried in the parenchyma of the lung, where they occupied the angles of the divisions of the larger bronchi and the subdivisions of these down to the fourth rank. When enlarged these glands were seen to make pressure upon the pulmonary artery itself.

Evidence of Sequence of Disease

The evidence that certain affections of the lower respiratorium, notably chronic nontuberculous bronchitis, bronchiectasis, and bronchial asthma, have followed this sequence from the upper respiratorium is based upon a number of observed facts that make it seem conclusive.

First, the same pathogenic organisms are found in the primary foci as in the metastatic lesion of the lower respiratory tract. Chief among these is a type of pneumococcus that haunts the nasal sinuses and which is found so frequently in the infected bronchi and bronchioles of the same individual that it is impossible to suppose this to be a mere coincidence. Certain pyogenic streptococci are likewise found in the secretions of the sinuses and also in the sputum from the lower respiratorium. There is no natural route by which this bacterial flora might travel from below upward, the current is clearly set in the other direction, as has been abundantly demonstrated.

Secondly, we have clinical evidence that affections of the lower respiratorium have repeatedly improved and in many cases been entirely cured after the infection in a sinus has been cleaned up by suitable treatment. The rapidity with which this change takes place after eradication of a sinus infection argues strongly in favor of such a sequence. Some physicians, failing to find sinus trouble in a chronic bronchitis case, assume that it has never existed. No patient's statement to this effect should ever be ac-

cepted without a thorough examination of the accessory nasal sinuses. Very frequently the patient is entirely unaware that he has infected or hyperplastic sinuses, he has no symptoms. A chronic sinus infection may be of such low grade that it gives no discomfort, and yet a careful examination may reveal its existence. Especially in children will a careful search for sinus disease in the early days of a persistent bronchitis frequently reveal the origin of such cases. The removal of foci within the sinuses will in many cases bring clinical relief even where, as in bronchiectasis, anatomic cure is not to be expected.

Thirdly, it may be possible to prove that an infection has come down from the upper respiratorium to the lower, by inoculating into animals the pathogenic organisms obtained from smears of the nose and sinuses, on the one hand, and from the sputum, on the other, and then comparing the results. Bacteriological and serological tests may also give useful information, serving to establish the identity of the infective agent in sinuses and lungs.

Fourthly, the frequency with which an infectious disease is found to exist simultaneously in both the lower and upper respiratoria cannot be regarded as an accident, but is evidence that an infection at work in one locale has sent its emissaries, as it were, to found a colony in another region. Thus, the common diseases of childhood notably measles, scarlet fever, and whooping-cough, are frequently complicated at the same time by both sinusitis and bronchitis. An acute infection of a sinus complicated by bronchitis always leaves permanent pathologic changes in the mucosa involved, making the patient susceptible to further attacks of the same infection which may arrive simultaneously. One should not, however, let the general systemic condition distract the attention from a primary sinusitis.

Predisposing Factors

In every infection carried from a sinus to the lower respiratorium there are certain predisposing factors. I have pointed out in a previous communication⁸ that subjects in a state of general debility, with a weak constitution and a lowered state of resistance, find themselves unable to cope with an attack of infection. Especially is it true that children who have been reared under unfavorable conditions with complete absence of hygienic care, or who have been victims of nutritional deficiency from their birth, are ill

adapted to bear these attacks, and it is in such cases that we see the most serious results of secondary infection. Such children are said to go from one "cold" to another, what they really do is to go from one acute attack of sinusitis to a grave bronchitis or bronchiectasis, then, not long after the latter has quieted down a little, along comes another flare-up, a fresh "cold," inciting anew the whole train of symptoms in the lower respiratorium.

The child who is a mouth-breather because of some obstructive condition in the nasal passages is especially prone to these repeated attacks, because the air-chambers in his head do not function properly, he is not adequately ventilated. His chest muscles are flabby, his thorax contracted, his metabolism poor. The negative pressure (suction) resulting from the sweep of the air through his mouth and down his pharynx encourages a hyperemia of adenoid tissue, occluding the postnasal space, interfering with his Eustachian tube and his soft palate, and causing a disturbance of circulation in his nose and nasopharynx. His mouth is dry, his cilia cannot transmit the necessary moisture and warmth, the air he breathes is cold and unfiltered, it chills his lungs, depresses his circulation, and fails to oxygenate his blood properly. This is the type of child that most readily develops a sinus infection which is liable to lead promptly to bronchitis if not to pulmonary tuberculosis. He is the victim of every disease that comes his way, he runs from one illness to another.

A very special class of adults who easily contract these diseases of the respiratoria are the workers in stone, coal, silica or other dust-producing occupations. The sharp spicules of stone or minute bits of coal become imbedded in their pulmonary tissues or their nasal passages, where they act as constant irritants. These particles sometimes become wedged between the epithelial cells, they even enter the walls of the lymph nodes of the lungs and bronchi, inducing such grave conditions as silicosis, anthracosis or pneumoconiosis.

Another class of the predisposed are those individuals who have been weakened by long-standing chronic infections of sinuses, teeth, tonsils, etc. It takes

only a slight exacerbation of the infection in these septic foci to bring on a severe attack of infection in the lower respiratorium, due to aspiration or to lymphatic or vascular invasion of micro-organisms or their products

Finally, there is the local predisposition that follows in the wake of such pulmonary affections as pneumonia or influenza, which leave the subject in a weak and sensitive condition, not very fit to fight another inflammatory illness such as he has just passed through

Chief Metastatic Affections of Lower Respiratorium Resulting from Sinusitis

The principal nontuberculous infections of the lower respiratorium that readily grow out of a neglected sinusitis are laryngotracheitis, bronchitis, bronchial asthma, bronchiectasis, and pulmonary abscess

Laryngotracheitis The infective micro-organisms leaving the sinuses have traveled but a short distance when they find in the larynx or trachea a weak spot where they can successfully colonize. As we have already seen, it is not difficult during sleep for infective material to sidestep the esophagus and choose instead to explore the recesses of the trachea. Chronic laryngotracheitis is almost always due to the direct inhalation of septic or toxic material from a sinus, or to the direct extension of an atrophic process from the nose and nasopharynx

Mirror laryngoscopy as a rule reveals the presence of chronic laryngotracheitis, while a thorough examination of the chest shows no outstanding pulmonary disease. All systemic examinations are negative, but upon careful examination of the paranasal sinuses a chronic infection is disclosed. Bronchoscopy may then reveal a chronic bronchitis, which is presumably an extension of the chronic tracheitis. Bronchial dilatation may not always be demonstrable by bronchoscopy or pneumonography, but in a certain percentage of cases changes are observed about the carina and bronchial spurs. These generally consist of a widening of the angle of division of the trachea or bronchi, with the carina and spurs broadened and rounded. Such changes can be inter-

preted as an enlargement of the peritracheobronchial and peribronchial lymph nodes. Chronic infection of sinuses is in fact one of the commonly accepted etiological factors in laryngotracheitis

Bronchitis From what has already been said with reference to the course of the lymph glands that carry infection from the paranasal sinuses to the lungs, it is easy to understand how these glands, when they have become enlarged, may by compressing the pulmonary artery produce a cough. It is also evident that they can make pressure upon other important structures and thereby cause retention of secretions within the finer bronchial tubes. Thus arises a metastatic bronchitis. Mullin⁹ recognized four types of sinus infection, which he called, in the order of their progressive development: acute inflammatory, acute purulent, chronic purulent, and chronic hyperplastic. The first two stay at home, so to speak, or they affect the lower respiratorium only by reflex irritation. It is the third and fourth that do the mischief. A chronic purulent sinusitis may often be highly insidious, as I have pointed out elsewhere.⁸ It may cause no pain, the discharge may be slight, there is no cough, headache nor any of the unpleasant manifestations commonly associated with disease of the sinuses. Yet the patient goes steadily downhill, he feels weak and flabby. The extensive mucous lining of the paranasal region gives a wide surface for absorption, and in the course of time the lymphatics take up the infection and carry it into the bronchial tubes, the result of which is a chronic bronchitis

In the chronic hyperplastic form of sinusitis, as recognized by Mullin,⁹ the mucosa becomes thickened and soggy, and may exhibit polypoid degeneration. There is at this stage very little drainage through the natural ostium of the maxillary sinus. The infection has become attenuated, resulting in a chronic hyperplastic condition of the sinus mucosa, nevertheless this mucosa is seriously diseased, and the absorption of bacteria and their toxic products through the lymph channels leads to chronic peribronchial glandular enlargements. The prime importance of the maxillary sinus in the production of bronchial infections lies in the fact that it develops early, its drainage is difficult

to maintain, and it is the largest of the paranasal sinuses. It therefore offers a greater surface for absorption of its infective products. The protracted flooding of the lymph channels with bacteria from this hyperplastic sinus tends to awaken a chronic peribronchitis, of which a "cold on the chest" may give the first evidence. Eventually a definite chronic bronchitis is built up.

Bronchial asthma In making nasal examinations in twenty cases of asthma, referred by a pediatrician, Lierle¹⁰ found disease of one or more paranasal sinuses in every case. In sixty per cent there was deflection of the septum, which obstructed drainage. Nasal treatment consisted in freeing the nose from every source of infection and in providing proper ventilation and drainage. A search should also be made for any local spots that might be responsible for abnormal reflexes. Mullin and Ryder⁴ point out that asthma is a symptom, and not a disease entity *per se*. They recognize three causes: (1) allergy, (2) infection in paranasal sinuses, and (3) reflex stimulation. However, all three causes may act together. It is usually the hyperplastic rather than the purulent type that causes bronchial asthma, the type that produces a luxuriant growth of polyps to act as irritants. In some cases removal of the polyps stops the asthma, when they grow again, the asthma returns. This happens too frequently to be an accident. The maxillary sinus may contain a low grade, dormant infection, which changes with the seasons, free from spasm in summer, but irritated again in winter.

Sluder¹¹ reminds us that the sympathetic nervous system in the nose is derived from the nasal ganglion, that it receives its sympathetic nerve supply from the vidian nerve, the great deep petrosal, the carotid plexus, and the upper cervical ganglion. Impulses may be transmitted from the inflamed nose by way of the nasal ganglion, the vidian nerve and carotid plexus to the sympathetic trunk in the neck, and thence to the lower cervical and first thoracic ganglia, thus proving that asthma may be a nasal reflex, dependent on the irritation of hyperplastic nasal tissue. Draining of the sinuses often cleans them up. Coates¹² thinks there is a bacterial allergy here, and that there is

little doubt that attacks of true allergic asthma are often precipitated by accessory sinus infection. On the other hand, nonallergic asthma is often due in his opinion to the direct irritation caused by contact of infected secretions from the nose with the tracheal and bronchial mucosa.

Bronchiectasis After a chronic bronchitis has become established, from a sinus infection, it will, if neglected, nearly always go on to a bronchiectasis, which of course is anatomically a permanent condition. Quinn and Meyer⁵ found bronchiectasis in twenty-two (58%) of thirty-eight patients with chronic bronchitis from sinusitis. It was long before it was generally recognized that some patients having symptoms of pulmonary tuberculosis, but with negative sputum, had no tuberculosis but were suffering with bronchiectasis. In a great many of these cases there are no symptoms of sinusitis, it is only very careful examination that brings out the fact of its existence. Webb and Gilbert,¹³ who made roentgenograms of the accessory sinuses in all cases of chest disease without tubercle bacilli, assert that there were but few cases of bronchiectasis or chronic bronchitis in which the x-rays did not bring out the presence of chronic sinusitis. In most cases they found bilateral empyema of the antrums and sometimes a state of pansinusitis.

The association of sinus disease with bronchiectasis is too common to be a chance finding, it is almost systematically conjoined with the latter. Clerf¹⁴ says it is so usual to find it that he prefers in all cases to consider that sinusitis is present until a rhinologist proves the contrary. He regards it as a very important predisposing cause in the production of bronchiectasis—a predisposition brought about by the enlargement of the peritracheal and peritracheobronchial lymph nodes, which interferes with the normal motility of the tracheobronchial tree, and by the occurrence of a low grade inflammatory reaction of the larynx, trachea, and bronchi, which is productive of excessive mucoid secretion and interferes with ciliary activity. These factors, together with susceptibility of the patient to "head colds," increase the frequency of acute bronchopulmonary infections, which in turn are responsible for bron-

chiectasis. It even appears that there is a very common association of sinus infection with bilateral lower lobe bronchiectasis, for which no adequate explanation has been found.

Pulmonary abscess. There is a great deal of evidence that pulmonary abscess is in a substantial percentage of cases due to aspiration of infected material from the upper respiratorium. Thus Freedlander,¹⁵ in a study of 238 cases of pulmonary abscess observed at the Cleveland City Hospital, found that in 141 cases (55%), the history was such as to make aspiration appear to be the probable cause. There is a type with a long history of chronic pulmonary suppuration, probably bronchiectatic, which at some time flares up with signs of acute abscess, that belongs in this class. At all events, many of the older cases had a complicating bronchiectasis.

Lueh and Sutton,¹⁶ in analyzing clinical material of 101 cases of lung abscess, found that in thirty per cent the abscess had been preceded by infections of the upper respiratorium. In one-third of the cases bronchoscopic examination revealed a swelling of the affected mucosa or extensive granulations. Patients who complain of pain in the chest and of expectoration a few weeks after an acute infection of the upper respiratorium—an attack of pneumonia or an operation about the nose and mouth—should be suspected of having a lung abscess.

One of the most convincing proofs in favor of an aspiration theory is the invariable existence of a communication between the abscess cavity and a bronchus, this communication is a direct continuation of a bronchus, and the abscess cavity is lined with epithelium which is continuous with that of the bronchus.

Ochsner and Nesbit¹⁷ observed that after a peritonsillar infiltration with procaine, iodized oil taken into the pharynx passed directly into the tracheobronchial tree, if oil can go there, it is clear that peritonsillar infection could take the same

route during anesthesia. According to these authors, general anesthesia produces an immobility of the larynx which prevents it from rising to a point of safety beneath the base of the tongue and epiglottis.

Flick¹⁸ and his coworkers reported that in forty-three of 172 cases (25%) the pulmonary abscess followed an acute infection of the respiratory tract, in twenty-two this was called "an acute cold," "influenza" or "acute bronchitis." In 121 cases the abscess followed operations, ninety-seven of which were tonsillectomy, while ten were of an oral nature.

It is evident, therefore, that these localized abscesses are in a very large number of cases the result of infection that has found its way down from the upper respiratorium. Where the lung abscess has been preceded by a recent tonsillectomy the sequence is too obvious to be overlooked.

Summary and Conclusions

1 The air passages fall naturally into three sections—an upper, a central, and a lower respiratorium, each having its own special function.

2 In the passage of infection from the upper to the lower respiratorium, there is a pathological sequence based on natural law.

3 The principal factors concerned in this sequence are aspiration, muscular and ciliary action, neurogenic balance, and the lymphatic and ciliary pathways by which infection is spread.

4 The paranasal sinuses, in their strategic position at the head of the respiratory tube, are the key to the transmission of practically all the infectious diseases to which the respiratory system is subject.

5 The sequence of infectious disease in the respiratory apparatus is from the sinuses downward toward the bottom of the respiratory tree.

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References

- 1 Thompson St. Clair *Practitioner* 92 745, 1914
- 2 Rist, E. *Presse med* 24 321, 1916
- 3 Sergeant E. *Bull et mem Soc med d hep d Paris* 40 1424, 1916
- 4 Mullin W V and Ryder C T *Laryngoscope* 31 158 1921

- 5 Quinn L H and Meyer O O *Arch Otolaryngol* 10 152 1929
- 6 Hilding A *Ann Otol Rhinol & Laryngol* 41 52 1932
- 7 McDonald I T Leisure, C. E. and Linneman E. E. *Trans Am Acad Ophth & Otol* p 318 1928

- 8 Settel, N *Laryngoscope*, 44 398 1934
 9 Mullin, W V *J.A.M.A.*, 87 739, 1926
 10 Lierle, D M *Ann Otol, Rhinol & Laryngol*,
 35 544, 1926
 11 Sluder, G *Trans Sec on Laryngol, Rhinol &
 Otol, Am Med Assn*, p 41, 1919
 12 Coates, G M *Ann Otol Rhinol & Laryngol*,
 35 723, 1926
 13 Webb G B, and Gilbert, G B *J.A.M.A.*
 76 714 1921

- 14 Clerf, L H *Am Rev Tuberculosis*, 24 605,
 1931
 15 Freedlander, S O *Ohio State Med J* 32 832,
 1936
 16 Lueth, H C and Sutton, D C *J Lab &
 Clin Med* 21 1057, 1936
 17 Ochsner, A, and Nesbit, W *Arch Otol*, 6 330,
 1927
 18 Flick, J B Clerf, L. H., Funk, E. H., and Far
 rell, I T *Am J Surg*, 19 1292, 1929

Case Report

NON-PENETRATING WOUND OF THE HEART

Injury to the Pericardium and the Left Pericardiophrenic Artery with Near Fatal Hemorrhage

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From the Surgical Department of Beth Moses Hospital

The seriousness as well as the differential diagnosis, and the urgent treatment that non-penetrating wounds of the heart may require, is well-illustrated in the following protocol

A Negro, aged seventy-two, was brought into the emergency room of the hospital about five minutes before I arrived to operate on another patient. He was unconscious, extremities cold, pulseless at the wrist, but breathing. There was a small wound, three-quarters to one inch in width, in the fourth intercostal space, several inches to the left of the sternum, caused by a knife thrust. There was no evidences of air escape from the wound nor was there any bleeding. Irregular sounds were heard, but no regular sustained heart beats, on listening over the precordia. Over the greater portion of the left chest flatness was percussed. Auscultation over this latter area revealed absence of breath sounds. The house officer, properly impressed with the urgency of the situation, refused to allow the patient to be completely disrobed, or even moved to a bed in the ward. Heat was applied to the body and the extremities. A venoclysis was started at once. In this fashion the patient was immediately, though tenderly, transported to the operating room, and hurriedly prepared. The operating room was already set up, the nurses prepared and waiting. No anesthetic, except a hurried superficial linear injection of one percent novocain solution at the site of the proposed incision, was employed.

An intercostal incision was made in the left fourth interspace, the sternal end of the cut passing abruptly downwards over the sternum for several inches. About four inches of the fourth rib with its costal cartilage was removed. The left sternal margin in this interspace was gouged out with rongeur. Before the pleura was incised, pulmonary insufflation by positive pressure,

using oxygen, was employed. The left pleural cavity was filled with blood. Suction was employed to remove the blood, to view better, the interior of the thorax, as well as the condition of its contents. The ribs were retracted with small sized right angled retractors, as a substitute for regular rib spreaders. The lung was undamaged. On the pericardium, to the left and somewhat posterior just below the left auricle there was a small clean cut wound, where the knife had punctured the pericardium, severing the left pericardiophrenic artery. This vessel was intermittently still spurting with each weak beat of the heart, pouring its blood directly into the thoracic interior. The artery was sclerotic, coursing in a perfectly straight line, diagonally, from above downwards and backwards. Interrupted fine chromic catgut, on needle, placed about the artery and tied above and below the opening in the vessel, immediately stopped the bleeding. A separate opening was then made in the pericardium and the interior viewed.

There was no apparent gross damage to the myocardium. A very small amount of blood was in the pericardial sac. Fine chromic catgut material was used to close the rents in the pericardium. During all this time the patient's condition continued poor, pulseless, cyanotic, and every inspiration appearing his last, but nevertheless, he continued to breathe. But once the severed vessel was ligated, the picture changed. Directly a "flicker of a pulse" was reported by the anesthetist, and hopes for his recovery were entertained. The venoclysis, that had been continued uninterruptedly throughout, was soon followed by a blood transfusion without a break in the flow. The pleura with the intercostal muscles were approximated, the latter with heavy chromic catgut interrupted sutures, the skin closed with

black silk, making a fairly good airtight closure of the thorax. The pulmonary insufflation was discontinued. The improvement was progressive, with a betterment in the pulse, color, and breathing. The patient returned to semi-consciousness and attempted to struggle. With gradual returning consciousness and coincident betterment in the quality of the pulse and general condition, the patient was sent to his bed in the ward. He was restless, and often had to be restrained, but had lucid moments. With the return of full consciousness he became cooperative.

Directly following the operation there developed signs and symptoms of left sided pleuroperitoneal irritation, with rigidity of the muscles of the left chest and left side of the abdomen, tenderness and pain on movement of these muscles, dyspnea, rise in temperature, abdominal distention, and inability to retain food. The white cell count in the blood, taken at this time, was 16,200 with ninety percent polymorphonuclear leukocytes and ten percent lymphocytes. Surprisingly enough this symptom complex almost completely disappeared in four days. The heart, throughout, had remained markedly displaced to the right, its sounds diffuse, rapid, but fairly regular.

Physical signs, confirmed by x-ray findings, showed evidences of considerable blood still remaining in the left chest, as well as fluid in the pericardial sac. The pericardial

cavity was aspirated twice, yielding on each occasion about fifty c.c. of light straw-colored fluid. The needle, in each instance, was introduced in the sixth intercostal space, close to the right of the sternum. About eight ounces of blood was removed from the left chest about a week following the operation, and although, later on, evidences of fluid in the chest still existed, no attempts at its removal were deemed wise or necessary. Dyspnea and an annoying sense of chest constriction were greatly benefited by the above measures. Cough and expectoration lasted for several weeks. The fluid removed from the pericardial cavity, on culture, showed no organisms. The blood pressure varied from ninety systolic and thirty diastolic taken several hours following the operation to 132 systolic and eighty diastolic one week later. The Kahn and Wassermann tests of the blood were negative. Further x-rays, taken at intervals, showed a slowly shifting heart back towards the left, the heart and mediastinal contents gradually attaining a more anatomical relation with a progressive absorption of fluid in the left chest. The electrocardiograph, taken before the patient's discharge from the hospital, was not remarkable. In three weeks, with his wound healed, he was allowed on a chair for a short period of time and two weeks later was well enough to be discharged from the hospital.

856 PROSPECT PLACE

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

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Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Smart Aleck

A young man of the acutest intellectual type came to the clinic reluctantly. He claimed not to need the doctor. He "had heard of him and just wanted to have a talk about things in general." That meant, of course, he was struggling against the idea of being treated. He vaguely knew he was not well, but would not admit it to himself. He thought he would deceive the physician as he deceived himself and perhaps glean from the conversation with him some hints that will help him keep among the healthy.

So he spoke about psychology and seemed to have some theoretical problems to solve that "had nothing to do with himself." But willy-nilly his "psychology" dropped into

somatology, that is his mind was soon translated into body functions, which made the medical interlocutor think of a psychoneurotic.

Then he enlarged on psychoanalysis and juggled with its vocabulary in a cleverer way than most specialists would be able to do. The torrent of phrases gushed so fast that nobody could have put in a word. But in a brief moment of silence the doctor timidly suggested that this was "too much Freud," more than Freud himself would accept, that it amounted to adapting facts or symptoms to theory, changing the most modern system into something medieval and so going back to pre-Baconian times. This puzzled the sophisticated man and he

changed the subject, now speaking about himself, so much so that one's diagnosis had to be modified as one was put on the track of a schizoid mentality, perhaps of an unusual form, but in principle the same as others. As he was encouraged to go on, he revealed indeed his chief symptom, by expressing the belief, first as if it were dealing with everybody, then referring it to himself, that he had no existence in reality, that his ego had vanished and that he was but a "reflection" of his surroundings—a frequent utterance in such individuals. He mentioned Schopenhauer, also a favorite author of people with similar psychotic tendencies. But he was immediately told that the comparison did not fit, since in *Die Welt als Wille und Vorstellung* the world was rather a reflection of ourselves—in fact, the world would not be without a human mind to conceive it.

At the second visit he had eructations like any ordinary mortal and I elucidated that he was as constipated as any self-respecting American and taking all the purgatives advertised everywhere which interfere so much with a cure. His speech was a step further advanced in schizophrenia, except that it showed in addition the mind of the constipated person. He challenged the doctor to prove that he, the patient, was alive and asked how can one be aware of oneself. Descartes' *Cogito, ergo sum*, quoted to him, seemed to make no impression. He was not convinced that he was thinking or that the thoughts he expressed were his own.

One important cue was given by his sex situation. Although surrounded by flattering girls, he was indifferent to them. Nor was he a homosexual.

In due course of time he had to admit, both to himself and to the doctor, that he was and should be a patient. His condition was bad but not hopeless.

Although he became more modest and docile as he continued to face the doctor, he still had outbursts of "superiority" once in a while, either in his line as a budding literary man or in his, now decaying, devotion to spiritism. It was easy to persuade him of the inaccuracy of the latter as a "science" and to demonstrate to him that conviction is often the result of will. Many instances were given. The one that impressed him mostly was the story from the doctor's Parisian high school days, almost fifty years before, when children used to

play finding a concealed object by holding the hands of one who knew where it had been put. The latter, unknowingly, unwillingly, led the searcher to the hidden thing by minute and hardly perceptible, but sufficiently palpable motions. Our patient felt visibly ashamed when told that boys of thirteen or so had been enlightened for life and had become immune to nonsense and superstition due to a game. With this small example as a basis the idea was extended into larger and weightier matters until the patient was conquered and rendered docile.

As a writer this patient commanded the admiration of the younger set of readers, especially those with pretensions to extreme and exclusive abstract and modernistic tastes and who never guessed how ridiculous they were. He knew his customers and had carefully studied how to strut and shine, how to *épater le bourgeois* and to impress by mentioning names from Dadaist, Surrealist, and Post-Impressionist art and literature. He was careless about the spelling of foreign words and superior to correctness of scientific facts, as many upstart and arrivist writers are. Hence his success, which was even more promising for the future—if it had not been checked by his mental condition.

He had begun to withdraw from his cénacle, because his sociability was cracking from all sides. But he was yet, in spite of himself, the center of an adulating circle, which was irritating and obnoxious to him, and he was led to abandon his friends entirely.

Then he was shown the emptiness of his position, the lack of foundation, the superficiality and untruthfulness of his literary life, about which he himself subconsciously knew and which was largely the cause of his unhappiness and his lack of satisfaction with himself. That, added to his congenital mental trend, explained the etiology of the case. At bottom he was and wanted to be honest and hated snobbishness, so he accepted these suggestions.

There was difficult, uphill work, but finally he was able to wipe out a good deal of his inner conflict. Then he did not disdain to accept work as an obscure and unnamed hack in a publishing house. His preferences kept on changing until he aspired to write a plain short story book descriptive of life as it was.

611 W 158 St

Dr X advises his patients to read murder tales in hot weather, to make their blood

run cold. Bald patients are advised to read hair-raising thrillers.

New York State JOURNAL of MEDICINE

Published Semi-Monthly under the Auspices of the Journal Management Committee

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EDITORIALS

Same Work, Same Ethics

The essential considerations in the practice of medicine, whether by a group of physicians or an individual, are always the same. The patient must be assured of the skill and integrity of his doctor or doctors. The medical man must be governed, first by his responsibility toward those under his care, secondly by consideration for his fellow practitioners. Whether he practices singly or in association with an organized group, the same principles of professional conduct should guide him in the discharge of his obligations.

There is no more reason or excuse for groups of doctors to advertise than for individuals. A reputation for able, honest service is still the best recommendation for any practitioner and the safest guide for the public. There are the same dangers to the laity in group advertising as in the sensational self-aggrandizement of men practicing singly.

Physicians do not lose their duty to the rest of the profession by banding themselves in groups. They are still bound to refrain from unfair competitive practices designed to advance their little bund at the expense of the remaining medical men in the community.

Contrary to expectations raised chiefly

by lay propagandists, the popular demand for group service has not materially increased. Neither has group practice on the average surpassed the quality of individual practice.

There is therefore no excuse for granting group practitioners special privileges. For continued public protection the Medical Society of the State of New York adheres to the policy "that groups of physicians, practicing as such, should remain within the same framework of restrictions as to their conduct as though the activity were that of an individual physician."

Mathematical Magic

Harold F Clark, Professor in charge of Educational Economics at Teachers College, Columbia University, has pulled a strange rabbit out of his mortar board. By means of no one knows what mathematical necromancy, he has fixed the monetary value of the average medical career at \$108,000 00. This figure takes into account a four per cent discount for cash. It surpasses any other of the sixteen vocations cited.

With a cash value of over a hundred thousand dollars, it is not surprising that medicine takes the lead. The surprising

thing is that after eight years of study Professor Clark should have reached a figure so incompatible with the facts and in such marked contrast to the results of other surveys

The Professor does not reveal the yardsticks by which he measures income, so that it is difficult to refute his statistics with precision. He does not, for instance, say whether his \$108,000.00 represents net or gross income, an important point in comparisons with professions like teaching, in which salary is net income. He also neglects to mention whether his total for farm labor includes maintenance, which hired help generally receive, or foods raised for personal consumption, which are normally part of farm income.

Professor Clark's mathematical conjurations would not deserve serious attention if it were not for the publicity given to his conclusions. "From the standpoint of society at large, income is the best measure we have of the relative need in all socially desirable occupations. It consequently follows that people should be encouraged to go into occupations that have incomes above the average and to stay out of all occupations where incomes are below the average."

Professional service is a type of service that people are willing to pay more for because it is scarce."

It does not seem to occur to the Professor that the question of fitness is more important in a profession like medicine than potential earnings, or that some forms of service earn more than others because of the greater degree of skill required and the longer period of preparation they entail. Higher earnings in such cases do not necessarily indicate a lack of practitioners to supply the public demand.

It is impossible to fathom by what criterion Dr. Clark places medicine at the financial head of the vocations he cites. Every responsible survey in recent years has remarked upon its poor economic return. The Professor's stab at medical earnings appears as exaggerated as his

guess of forty-two years as the working life span of physicians.

A student who entered medical college on the strength of the Clark statistics would be keenly disappointed by what he found. The physician who earns more than a simple livelihood is the exception rather than the rule. Medicine never has been "tops" as a money making profession. Professor Clark's figures notwithstanding, it's the last occupation in the world for financially inclined go-getters.

Combination Therapy of Anemia

It is known that the body requires a constant supply of certain substances in order that erythropoiesis may proceed normally. Among these, iron, copper, and the substances present in whole liver are the most important. The role of thyroxine, chlorophyll, and the pituitary secretion are undetermined factors in maintenance of adequate red-cell production.¹

A deficiency of the required factors, be it the result of faulty diet, metabolic disturbance or organic disease, will produce an anemia. Following the administration of material potent in overcoming anemia, the latter can be checked in its progress and most often entirely remedied. In the treatment of secondary anemias, the pharmacological action of the various drugs and substances at our disposal must be thoroughly understood. Iron can be stored in the liver and so become unavailable for the production of hemoglobin unless liberated for use by a catalytic agent such as is to be found in copper. In addition, the extrinsic factor found in liver must be combined with the intrinsic one normally present in the gastric mucosa.

It has been demonstrated that different substances causing identical therapeutic effects are augmented in their action when administered in combination with one another. On the other hand, substances having different pharmaco-

¹ J. Vaughn, J. M. *The Anemias*, 2nd Ed., Oxford Univ. Press, London, 1936.

logical points of attack produce a still more intensified result when combined in medication. These principles, first advanced by Buerger² seem to apply in the treatment of secondary anemias. A combination of small doses of iron, liver, calcium, and Vitamins B and G was found by Almour³ to be of decided value in benefiting both the secondary anemic state and the symptoms resulting therefrom. Further investigation is, of course, desirable before it can be definitely determined whether this form of oral medication is as efficacious as the parenteral administration of hematopoietic drugs.

Glutathione in Thymus

The growth promoting properties of glutathione have been amply demonstrated. The chemical is a compound of cysteine and glutamic acid and in the body assumes the role of a catalytic agent in the oxidizing of fatty acids. Its presence in the thymus gland has been determined by chemical analysis but whether the gland manufactures it or merely stores it is as yet unknown.

Rowntree, Steinberg, and Hanson,¹ who have been conducting experiments in animals on the functions of the thymus gland, have succeeded in developing precocious rats by feeding successive generations with thymus extract. This precocity can be greatly enhanced when glutathione is substituted for the extract of the thymus.

The fact that this chemical promotes both normal and abnormal growth and accelerates cell division opens up a new field in cancer research. Abnormal growth still remains the chief problem in the investigation of cancer, the production of which may be affected by extrachromosomal influences during the embryonic stage of life.² Added investigation of the

action and function of glutathione may furnish a clue to the origin of malignant growth.

CURRENT COMMENT

"NOW WHILE IT DOES NOT INSURE health or stop illness, sickness insurance is a degradation and mental degeneration to the insured.

"The duly protested Japanese invasion of American industry is small time marbles compared to the politician's invasion of the sacred science of medicine—sacred because of its traditions, its purposes and its essential honor.

"Any system that tends to lower and even actually to abase any unit of civilized life that both protects and develops the mental, moral and physical perfection of the populace is an odious, even a vicious visitor to the American nation"—Vehement editorial comment, to be found in the *Illinois Medical Journal* of July 1937.

"IT DEEMOIVES THE MEDICAL profession to formulate a program which will leave the control of medical care in the hands of the profession and yet continue to provide adequate medical care to all classes. Perhaps this is easier said than done. However, it is a challenge we must eventually accept"—Dr. A. C. Hansen, writing in the *Supplement* to the *Saint Louis County Medical Society Bulletin*, July 1937.

"THE LATELY INSTINCTIVELY has respect for the things that doctors wives say and do. They are influential, whether they will or not. Doctors' wives truly have married not alone into close contact with the men they love—but into the great profession itself"—From the *Jackson County Medical Journal* of recent date.

"THE ENTIRE THREAT OF SOCIALIZED or state medicine is made possible by a sense of false security in hospital directors and in doctors themselves. If socialized medicine should ever become a reality, doctors must blame themselves if they are forced to view the ruins of a great edifice with the mumbled explanation 'We were not prepared'"—An opinion and a warning by *The Linacre Quarterly*.

² Puergel *Med Biol* Schrefflen 4 25 1932

³ Almour, H. N. *STATE J MED* 37 1283 1937

¹ Rowntree L. G. Steinberg, A., and Hanson A. *Science* 84 9 1936

² Little, C. C. *Proc Staff Meet Mayo Clinic*, 11 782, 1936

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"THERE SEEMS TO BE NO DOUBT that the methods of training the medical student call for revision and reform and it is equally patent that the question simply bristles with difficulties. Not only is the training defective in some respects and the curriculum overloaded but more opportunities are necessary for the newly qualified man to gain practical experience before entering upon practice. There are signs that the practice of medicine is changing and it is essential that medical practitioners should not be found wanting when changes come. The curriculum must be so framed as to turn out medical men able to cope with any condition or situation"—A comment on "The Medical Curriculum" by the editors of *Medical Record*, July 21

"FOR SOME TIME WE HAVE OPPOSED the propositions and principles of State Medicine in these columns. We have felt that State Medicine is essentially contract practice, and as such, not in the interest of the people or of the physician. We viewed the State in the light of employer and paymaster unfavorable. We envisioned the physician under contract to the State, almost as a convict of the unenlightened days, slaving his life out in leg irons under the cruel lash of the overseer, at the behest of ruthless politicians.

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created a picture of predatory politicians with unkempt hairy hides like wolves, offering degrading contracts to emaciated physicians whose private practices had been undermined by welfare termites and philanthropic-looking red ants. Isn't it terrible to have a mind's eye like that?

"However, it is a great relief to admit that we were wrong. Almost like waking up out of a nightmare! Our hideous phantasies vanish, and our pineal, or mind's eye which we reserve for special editorial use on hot days is blacked, deservedly, by the hard and bony fist of truth and reason. We read (p 122, *Med Econ* May 1937), that 'For \$1,400 a year, out of which he had to pay for all his medical supplies, an Illinois doctor contracted to care for the poor of a medium-sized city. At the end of a year he found that he had pulled 542 teeth, had performed five hysterectomies and 72 other abdominal operations, and had attended 55 obstetrical cases. Also, he had 5,703 office visits, 3,223 residence calls, 66 visits to the county home, 57 police calls (fifteen to the county jail) and 177 calls to rural districts from eight to 23 miles away'.

"In view of these facts, our apprehensions for the physician under State Medicine are seen to be plainly unfounded and illusory. We now see that they should have been reserved for his patients, for no physician with so much money to squander could be expected to keep his mind on his job"—We enjoyed reading the above editorial from the pen of Laurance D Redway, M.D., in the July *Westchester Medical Bulletin*, and so we have quoted it in full.

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at the bedside. Two years ago, however, the opportunity for closer relationship presented itself. At that time the extra-mural plan of teaching was extended to include the medical department of Beth Israel Hospital and students have been sent to us from the College for elective courses in internal medicine.

Doctor Wyckoff, as Dean of the Medical College was vitally interested in every phase of the students' medical progress and it was

natural for us to have a more intimate association with him than was possible before.

There grew upon me rapidly a realization of the greatness of the Dean's personality and the earnestness with which he devoted his life to the teaching and practice of medicine. These qualities so impressed themselves upon me that I am impelled, in this hour of his sad passing, to give humble expression to my own personal feeling. I do this not only in tribute to the memory of a great teacher, but also to bring him more intimately to those whose duty it will be to carry on his precepts.

He was a man of a minimum of words and a maximum of action, and it was characteristic of Dr. Wyckoff to put into action his accomplishments after thorough deliberation and discussion with those whose advice he needed as vital to the cause, and not to make public his plans until they were launched. His writings also show his habit of careful thinking and his logical approach to a conclusion. Indeed, they reflect the kind of man he was: the clinician who, at the bedside—where throughout many years I had occasions to meet him—could with penetrating insight as well as with remarkably few words recognize the truth. He understood patients because of an innate, profound self-identification with all other human beings, and into his teaching of students he carried that intuitive understanding.

Appreciating the need of large buildings, he often expressed the desire for such a realization. But his ambition to have great teachers in their respective branches was even greater than to have large impressive buildings. The latter task he carried out with all the mental and physical strength that was in him. Wyckoff was partial only to accomplishment. Nothing else actually counted with him. The success with which he worked out his plan in the development of his school is now widely known. In large measure it was due to the Dean's personal efforts, on the basis of the foundation

laid by his predecessors, Egbert Lefevre and Samuel Brown, who stressed the importance of a liberal practical school without in the least sacrificing the scientific aspects.

Wyckoff realized actually what the late Peabody of Harvard had planned but did not live to carry out, namely, that there must be two classes of teachers in a medical school, the one more purely scientific such as the chemist and the physiologist, and the other, the clinical teacher who, although himself not endowed with the quality of doing original experimental work, nevertheless, knows how adequately to evaluate it and apply the findings at the bedside. He went further and developed to an extraordinary degree an integration of the clinical and more purely scientific branches to the great advancement of both.

Freedom for the teacher to use his own method of teaching was the primary principle of practice insisted upon by Dean Wyckoff. Nevertheless with his keen eye and mind he supervised sufficiently so that all departments should work harmoniously. He wished the students to have diversified viewpoints but they must be of the truth, and not those that may cause confusion. His untimely death has robbed the college, the hospitals and American medical education of a great leader. The only mitigation of this loss is the fact that through his greatness he planned so well that the principles for which he stood cannot fail to be maintained. No one can ever quite take his place in the hearts of all who loved him but he built so well that the mantle of his personality and ability remain as constant inspirations and guides to those who must carry on in his place to the eventual full realization of John Wyckoff's ideal. For all of us, there is left the precious memory of an association with one who epitomized all that we strive and hope to be.

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take office at the termination of the annual meeting at which they were elected.

Article VI

Trustees

The Board of Trustees shall consist of five members elected by the House of Delegates in accordance with the By-Laws. The President, the Secretary and the Treasurer shall sit with the Board of Trustees with voice but without vote.

Article VII

Board of Censors

There shall be a Board of Censors consisting of the President and Secretary of the Society and the eight Presidents of District Branches, as provided in the By-Laws.

Article VIII

Meetings

There shall be an annual meeting of the Society and of the House of Delegates to be held at a time and place designated by the House of Delegates.

Article IX

Funds

Funds shall be raised by an annual per capita assessment on each component County Society at a uniform per capita rate throughout the State. Funds may also be raised in any other manner approved by the House of Delegates or by the Council when the said House of Delegates shall not be in session.

The approval of the Council and of the Board of Trustees shall be necessary for the expenditure of any funds of the Society.

Article X

Referendum

At any meeting of the House of Delegates a majority of the members present may order a referendum vote of the Society on any question consistent with the Constitution and By-Laws and in accordance with such regulations respecting the submission of the question as the House of Delegates may prescribe. The members shall vote thereon by mail. The polls shall be closed at the expiration of fifteen days after the mailing of the question, and if the members voting shall comprise a majority of all the active members of the Society, a majority of such vote shall determine the question and be binding on the Society and the House of Delegates. The Council may, in a similar manner, order a referendum to the House of Delegates.

Article XI

District Branches

Sec. 1 The membership of the Society

shall be divided into eight District Branches as follows:

The First District Branch shall comprise the members of the Medical Societies of the Counties of New York, Bronx, Westchester, Rockland, Dutchess, Putnam, Orange, and Richmond.

The Second District Branch shall comprise the members of the Medical Societies of the Counties of Kings, Queens, Nassau and Suffolk.

The Third District Branch shall comprise the members of the Medical Societies of the Counties of Albany, Rensselaer, Schoharie, Greene, Columbia, Ulster and Sullivan.

The Fourth District Branch shall comprise the members of Medical Societies of the Counties of St. Lawrence, Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren and Washington.

The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Onondaga, Oneida, Herkimer, Oswego, Lewis, Madison, and Jefferson.

The Sixth District Branch shall comprise the members of the Medical Societies of the Counties of Otsego, Delaware, Chenango, Cortland, Tompkins, Schuyler, Chemung, Tioga and Broome.

The Seventh District Branch shall comprise the members of the Medical Societies of the Counties of Monroe, Wayne, Cayuga, Seneca, Yates, Ontario, Steuben, and Livingston.

The Eighth District Branch shall comprise the members of the Medical Societies of the Counties of Erie, Niagara, Orleans, Genesee, Wyoming, Allegany, Cattaraugus, and Chautauqua.

Sec. 2. Each District Branch may adopt a constitution and by-laws for its government and may amend the same, but before becoming effective they shall be approved by the Council. They shall be consistent with the Constitution and By-Laws of this Society.

Sec. 3. Changes in the number or membership of these District Branches may be made by a two-thirds vote of the House of Delegates at any annual meeting.

Article XII

County Societies

The terms County Medical Society or component County Medical Society shall include all County Medical Societies now in affiliation with this Society or which may hereafter be organized and chartered by the House of Delegates. There shall be but one County Medical Society in each County affiliated with this Society. If there should be an insufficient number of physicians in any of the Counties of this State to form themselves into a component

CONSTITUTION AND BY-LAWS

For convenience of the members and for the final official record, the various Articles, Chapters and their Sections of the Constitution and By-laws as revised by the House of Delegates at its 1937 meeting are here grouped in serial order as they will appear later in pamphlet form

Certain errors in preparation of copy and in proofreading occurred in the printed minutes, Section 37, in the July 15, 1937, issue of the JOURNAL. These have been corrected here. There were two main errors. One came from failure to change the name "Council of Trustees" as in the original submitted revision, to "Council" or "Board of Trustees" as the case might require. Such changes were necessary in Chapter II, Section 8 of By-laws on page 1316, Chapter IX, Section 1, on page 1330, Chap-

ters X, XI, XII, on page 1331, Chapter XV, Section 1, on page 1332, Chapter XV, Section 6, on page 1333, Chapter XVI, Sections 2 and 5, on page 1334. The House had directed this change by motion as recorded on page 1310.

The other error was in Chapter VIII, Section 1 (b). The term "Director of Activities" should have been "General Manager," in keeping with paragraph (a).

For the sake of the record, attention is called officially to a typographical error in the Minutes as printed in the July 1, 1937 issue, page 1249, Section 83. The Delegates to the A.M.A. were elected for the years 1938-9 (instead of 1937-8 as printed).

SAMUEL J. KOPETZKY, Speaker

PETER IRVING, Secretary

Constitution

Article I

Name and Purposes

The name and title of the Society shall be the Medical Society of the State of New York. The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of New York, to extend medical knowledge and advance medical science, to elevate the standard of medical education, to secure the enactment and enforcement of just medical and public health laws, to promote friendly intercourse among physicians, to safeguard the professional and economic integrity of its members and to establish and maintain them in appropriate and equitable relationship with the public, with government and with all agencies working in the fields of health and welfare, and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State.

Article II

Membership

The membership in this Society shall be divided into three classes: (a) Active, (b) Retired, (c) Honorary.

Article III

House of Delegates

There shall be a House of Delegates which shall be the legislative body of the Society and shall be charged with the general management, superintendence, and control of the Society and its affairs and shall have such general powers as may necessarily be incident thereto, except as otherwise specifically pro-

vided by the Constitution and By-Laws. It shall pass upon the credentials and qualifications of delegates and shall decide who are entitled to be members of the House of Delegates. It shall have authority and power to suspend or otherwise discipline its own members, District Branches, component County Medical Societies or any member of the Society charged with special duties for and under authority of the State Society. It shall provide for a division of the scientific work of the Society into appropriate sections, for the organization of the District Branches, for rules and regulations for its own government and for the administration of the affairs of the Society. When the House of Delegates is not in session, the Council shall exercise all the rights and duties of the House of Delegates that are not inconsistent with the Constitution and By-Laws of the Society. (See By-Laws)

Article IV

Council

There shall be a Council composed of the President, the President-Elect, the immediate Past-President, the Secretary, the Treasurer, the Speaker, and nine other members elected by the House of Delegates.

Article V

Officers

The officers of the Society shall be a President, a President-Elect who shall serve as first Vice-President, a second Vice-President, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, a Speaker, and a Vice-Speaker of the House of Delegates. They shall

New York as may hereafter be elected All nominations for honorary membership must be endorsed by three members of the Society and forwarded to the Secretary for presentation to the House of Delegates, which by a two-thirds vote of the House of Delegates present and voting shall be declared elected honorary members of this Society Honorary members shall be entitled only to the privilege of attending and addressing the meetings of the Society

Chapter II House of Delegates

Sec. 1 The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies, (b) Officers of the Society and other members of the Council and of the Board of Trustees, and (c) the Presidents of the District Branches sitting as District Delegates Past Presidents of the Society shall be life members of the House of Delegates Each component County Society shall be entitled to elect as many delegates as there shall be State Assembly Districts in such County at the time of the election, but each component County Medical Society shall be entitled to elect at least one delegate A component Society representing by its name more than one County shall be entitled to as many delegates as there are Assembly Districts in the Counties named in the title of such Society

Sec. 2 A delegate to this Society shall not be considered in good standing or entitled to vote in the House of Delegates if the component County Medical Society by which he was elected is in default of the payment of any dues or assessments imposed by the House of Delegates, and said County Society has been duly notified of such default, or if such component County Medical Society shall at the time be under sentence of suspension imposed by the House of Delegates, or if such delegate is not in good standing in this Society, or in the component County Medical Society to which he belongs The term of a delegate elected by a County Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election.

Sec. 3 The annual meeting of the House of Delegates shall be held on the day before the annual meeting of the Society The sessions of the House of Delegates may be adjourned from time to time as may be necessary

Sec. 4 A quorum shall consist of sixty duly elected or constituted members of the House of Delegates

Sec. 5 The House of Delegates shall hear and finally determine all appeals taken from decisions of the Board of Censors

Sec 6 The House of Delegates shall provide for the issue of charters to County Societies in affiliation with this Society

Sec 7 The House of Delegates shall have authority to appoint special committees from among members of this Society

Sec 8 The following shall be the order of business at the sessions of the House of Delegates

- 1 Calling the meeting to order
- 2 Report of Reference Committee on Credentials
- 3 Roll call by the Secretary
- 4 Reading the minutes of the previous meeting
- 5 Report of the President
- 6 Address by the President-Elect
- 7 Report of the Board of Censors
- 8 Report of the Council
- 9 Report of the Secretary
- 10 Report of the Treasurer
- 11 Report of the Board of Trustees
- 12 Reports of District Branches by District Delegates
- 13 Reports of Special Committees
- 14 Reports of Reference Committees
- 15 Unfinished Business
- 16 New Business
- 17 Adjournment

Chapter III Election of Officers, Councillors, Trustees and Delegates

Sec. 1 The Officers, members of the Council and of the Board of Trustees of the Society, and the Delegates to the American Medical Association shall be elected as the first business of the second day's session of the annual meeting of the House of Delegates No member of the Society who is in arrears for county dues or State Society per capita assessment shall be eligible for any office or entitled to vote for any officer, member of the Council, trustee or delegate

Sec. 2 The President, the President-Elect, who shall serve as first Vice-President, the second Vice-President, the Secretary, the Assistant Secretary, the Treasurer, the Assistant Treasurer, the Speaker and the Vice-Speaker of the House of Delegates shall be elected for one year or until their successors have been duly chosen.

Three members of the Council shall be elected annually for a term of three years, except in 1937 when three shall be elected for three years, three for two years and three for one year In the event of a vacancy a Councillor shall be elected for the unexpired term.

Sec 3 One trustee shall be elected annually for a term of five years In the event of a vacancy, a trustee shall be elected for the unexpired term

County Medical Society, such physicians may become members of the component County Medical Society of an adjoining County when eligible by the Constitution and By-Laws of such County Society

Article XIII Amendments

Amendments to this Constitution, except such as are obligatory by law, shall be made only at an annual meeting of the House of

Delegates. Notice of the proposed amendment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon, it shall be published at least once and at least one month before the annual meeting in the official publication of the Society.

A two-thirds vote of the members of the House of Delegates present and voting shall be necessary for adoption.

Amendments made necessary by law shall be made either by the Council or House of Delegates whenever such necessity exists.

By-Laws

Chapter I Membership

Sec. 1 The active members shall be all active members in good standing of the component County Medical Societies. A copy of the roster of such members, certified to be correct by the Secretary of such County Society shall be evidence of the right of the members whose names appear therein to membership in this Society. No member who has been dropped from the roll of a component County Society by reason of failure to pay dues shall be accepted by another Society except by regular transfer after reinstatement in the original Society.

Sec. 2 The term "good standing" is hereby defined as: (a) A member is in good standing when his dues to his County Society and the assessment of the State Society have been paid when they are due and payable. (b) A member whose dues and assessments are unpaid after May 31 of any current year, is not in good standing. He is in arrears for dues. He has lost his right to malpractice defense by counsel of the Medical Society of the State of New York for any acts upon which suit may be predicated during the period of his arrearage. This last is not recoverable, even when he becomes reinstated. Immediately upon payment of dues during the current year, his right to malpractice defense by counsel of the Medical Society of the State of New York shall be restored from that date. (c) A member whose dues and assessments are unpaid after December 31 of any current year shall automatically be dropped from the rolls of membership of both County and State Societies, without notice to such member by his County Medical Society or the Medical Society of the State of New York, or without further action on the part of either County or State Society, and upon such date, he shall automatically cease to be a member of both County and State Societies.

Sec. 3 Any member expelled from his component County Society or suspended from its rights and privileges, shall likewise be expelled

or suspended for the same period from this Society. The right of appeal to this Society shall not be impaired, nor shall such appeal prevent the carrying out of the judgment of the County Society pending such appeal. Members not in good standing or ceasing to be members of their County Society, shall *ipso facto* have the same status in this Society. Suspension or expulsion shall terminate malpractice defense.

Sec. 4 A member of one County Society shall not be permitted to transfer to membership in another County Society until he has established a legal residence or has his principal office in the County to which he desires transfer. The question of legal residence or principal office shall be verified by the Board of Censors of the County Medical Society to which the member desires transfer.

Sec. 5 Any member convicted in a court of law of a crime evincing moral turpitude shall thereupon cease to be a member of this society.

Sec. 6 A member in good standing in his component County Medical Society, reaching seventy years of age or if permanently disabled may *ipso facto* have the privilege of applying for retired membership in the State Society. All such applications shall be signed by the President and the Secretary of the County Society of the applicant and then sent to the Secretary of this Society for presentation to the House of Delegates for approval. An active member desiring to become a retired member shall apply for such membership to the component County Society of which he is a member. Such applications shall be governed by the Constitution and By-Laws of the Component County Society relative to active membership. Retired members shall not be subject to assessment, but shall be accorded all the rights and privileges of active membership except voting and holding office.

Sec. 7 The honorary members of this Society shall be all persons now on the roster as such and in addition such distinguished physicians residing outside of the State of

or commit the Society to any policy unless the same has been expressly approved by the House of Delegates or by the Council

Sec. 9 The duties of the Council shall also include the study and supervision of the following activities

- (a) All Scientific Work presented at each annual meeting
- (b) Scientific Exhibits
- (c) Medical Education.
- (d) Journal Management and Publication
- (e) Medical and related research
- (f) Arrangements for annual meeting
- (g) Preventive Medicine
- (h) Public Health
- (i) Legislation
- (j) Economics
- (k) Workmen's Compensation
- (l) Health and Welfare Departments of State.
- (m) Medical Publicity
- (n) Hospitals, Clinics and Welfare Agencies
- (o) Cooperative relationships with Federal and State Governments, Foundations and other lay groups
- (p) Malpractice defense and Insurance
- (q) Any activities not otherwise provided for

Sec 10 Committees of the Council may include other members of the Society and shall be appointed by the President subject to the approval of the Council. Each committee shall include at least one member of the Council who shall be chairman, except that he need not be chairman for the committee or committees in charge of activities "A", "B" and "F", Chapter IV, Section 9 of the By-Laws. The membership of committees shall not exceed three including the chairman, except the committee or committees in charge of activities "A", "B", "D" and "F", Chapter IV, Section 9 of the By Laws

Sec. 11 The following shall be the order of business at meetings of the Council

- 1 Calling the meeting to order
- 2 Roll call
- 3 Reading of Minutes
- 4 Communications
- 5 Report of the Secretary
- 6 Report of Treasurer
- 7 Reports of Committees
- 8 Unfinished Business
- 9 New Business
- 10 Adjournment

Chapter V Board of Trustees

Sec. 1 At the first meeting of the Board of Trustees immediately upon the close of the annual meeting of the House of Delegates, it

shall organize under the chairmanship of the senior member and fix the time and place of its regular meetings. The Board of Trustees shall meet at least bi-monthly. Any two members of the Board of Trustees may require the Chairman to call a special meeting at the office of the State Society for such time as shall be designated by them in writing and of which the members of the Board shall have at least seven days' notice.

Sec. 2 The Board of Trustees shall have charge of all property including trust funds and shall supervise the financial affairs of the Society and shall invest the surplus from time to time. The budget prepared by the Council shall be submitted to the Board for its approval, and all resolutions or recommendations of the House of Delegates or Council pertaining to expenditures of money must be approved by the Board of Trustees before the same shall become effective. The fiscal year shall begin July 1st and end June 30th of the following year.

Sec 3 All moneys of the Society received by the Board of Trustees, Council or any member or agent thereof, shall be paid to the Treasurer of the Society. The Board of Trustees shall approve the bond of the Treasurer and the Assistant Treasurer, as to amount, form and surety, and shall employ a certified public accountant licensed by the State of New York to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its annual report to the House of Delegates. The Chairman of the Board of Trustees shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Society under its control.

Sec 4 Three members of the Board of Trustees shall constitute a quorum.

Sec. 5 The following shall be the order of business at the meeting of the Board of Trustees

- 1 Calling the meeting to order
2. Roll call by the secretary
- 3 Reading of minutes
- 4 Communications
- 5 Reports
- 6 Unfinished business
- 7 New business

Chapter VI Censors

Sec 1 Five Censors shall constitute a quorum.

The President and the Secretary of the Society shall sit as Chairman and Secretary respectively of the Board of Censors but with-

Sec 4 The first order of business on the second day of the session of the House of Delegates of each annual meeting shall be the nominations for officers of the Society and other members of the Council, a member of the Board of Trustees, delegates to the American Medical Association and the appointment of a sufficient number of tellers by the Speaker. After all nominations have been made the Secretary shall cause to be displayed in full sight of the delegates a list of nominees for each office arranged in alphabetical order, and shall also cause to be distributed a sufficient number of blank ballots for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for.

Sec. 5 All elections for such offices shall be by ballot, each member depositing his ballot on roll call individually. In the event of a single nominee only for any office, a majority vote without ballot shall elect. In case no nominee for an office receives a majority of votes on the first ballot the nominee receiving the lowest number of votes shall be dropped and a new ballot taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast when he shall be declared elected.

Sec. 6 The following method shall govern the election of delegates to the American Medical Association. Nominations shall be made for not less than double the full number of delegates to be elected, and the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen, a corresponding number in the next highest order of votes cast shall be declared alternate delegates. When the full quota of elected delegates or alternate delegates is not available for attendance at the meeting the President shall appoint and certify a sufficient number to complete the quota.

Sec. 7 The delegates to the American Medical Association shall be elected in the calendar year preceding the meeting of the House of Delegates of the American Medical Association to which they are elected and in accordance with the Constitution and By-Laws of that body for a term of two years. Delegates may be elected to other medical societies or similar bodies as the interests of the Society may require, and credentials shall be issued to all delegates, signed by the President and Secretary.

Chapter IV Council

Sec 1 The Council shall be the Executive and Administrative body of the Society while

the House of Delegates is not in session and shall control all arrangements for the annual meeting. It shall prepare an annual budget for submission to the Board of Trustees. Its resolutions and actions shall be decisive and final except that all resolutions and actions of the Council are subject to review, reconsideration, and action by the House of Delegates. Its actions shall be governed by the Constitution and By-Laws of the Society and the rules and regulations of the House of Delegates. The Council shall have power and authority to employ, discharge, and arrange duties, and with the approval of the Board of Trustees, fix compensation of and for any employee which it may find necessary for conducting the affairs of the Society.

Sec. 2 The Council shall meet at the close of the annual meeting of the House of Delegates. The members of the Council shall hold office until their successors are duly elected and qualified.

Sec 3 It shall meet at regular intervals at times and places that shall be fixed by the Chairman. Any four members of the Council may require the Chairman thereof to call a meeting for such time and place as shall be designated by them in writing. Members must receive at least two days' notice in letter or telegram from the Society's office.

Sec. 4 A quorum shall consist of nine members.

Sec. 5 The Council shall take such action as is necessary to carry out the Constitution and By-Laws and to give full effect to any resolution or vote of the House of Delegates. It shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Constitution and By-Laws.

Sec 6 The Council shall have power to fill any vacancy which may occur in any elective office not otherwise provided for, until the next meeting of the House of Delegates.

Sec. 7 The Council shall have responsibility for all publications of the Society and their distribution. Any Special Committee of the Society shall report to the Council and shall be subject in all ways to the Council unless otherwise instructed by the House of Delegates. The Council shall advise the legal counsel in actions brought against members for alleged malpractice. With the aid of legal counsel, it shall examine the Constitution and By-Laws of component County Societies and District Branches and all amendments thereto which may be submitted to the Council for approval and shall approve or disapprove of said amendments.

Sec 8 No Board, Commission, or Committee shall inaugurate or initiate any policy

deliver an address at the annual meeting of the Society. He shall perform such other duties as the House of Delegates or the Council shall require.

Sec. 2. The President-Elect shall perform the duties of the President in the absence of the President. In the event of the President's death, resignation, removal, incapacity or refusal to act, the President-Elect shall succeed him.

Sec. 3. The immediate past president shall be a member of the Council.

Sec. 4. The Speaker shall preside at all meetings of the House of Delegates. He shall appoint all parliamentary committees to serve during the meeting of the House of Delegates at least thirty days in advance of the meeting. All resolutions submitted by County Medical Societies and District Branches to be presented to the House of Delegates should be forwarded to the Speaker at least forty-five days in advance of the annual meeting of the House and referred by him to the appropriate Reference Committee, and all resolutions sent in subsequent to forty-five days should be presented to the House and referred to the appropriate Reference Committee.

Sec. 5. The Vice-Speaker shall perform the duties of the Speaker when requested by the Speaker to do so or in case of the absence, death, resignation or refusal of the speaker to act.

Sec. 6. The Secretary shall attend all meetings of the Society, the House of Delegates, the Council, the Board of Trustees, and the Board of Censors, and shall keep minutes of their respective proceedings. These minutes shall be copied from a stenographer's notes with such deletion only as will not modify, alter, or belound the history of the actions of the said bodies. The stenographer's typewritten copy shall be preserved until ordered destroyed by the House of Delegates.

Sec. 7. The Secretary shall be responsible for and have general charge of the Society's offices and the employees therein. He shall be the custodian of the seal of the Society, and of all books of records and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep an account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members at all sessions of the Society. With the aid and cooperation of the Secretaries of the County Societies, he shall keep a proper register of all the registered physicians of the State by counties. He shall aid the officers of the District Branches in the organization and improvement of the County Societies and the extension of the

power and influence of the Society. He shall conduct the official correspondence, notifying members of meetings, Officers, Councillors, Trustees and Board members of their election and committees of their appointment and duties. He shall affix the seal of the Society to all credentials issued to members of the Society elected by the House of Delegates and to such other papers and documents as may require the same. He shall make an annual report to the House of Delegates. He shall supply each County Society with the necessary blanks for making their annual reports to this Society. Acting in cooperation with the Council, he shall prepare and issue all programs. He shall be a member of the Council. He shall be ex-officio a member of all boards and committees, without vote. He shall record the name and date of admission of each member of the Society.

Sec. 8. The Assistant Secretary shall aid the Secretary in the work of his office and in the absence or disability of the latter, he shall perform the duties of the office until the Secretary resumes the work, or in case of a vacancy, until a successor shall be elected.

Sec. 9. The Treasurer shall keep accurate books of accounts of all moneys of the Society which he may receive, and shall disburse the same when duly authorized, but all checks drawn by the Treasurer upon the funds of the Society shall be countersigned by the Secretary of the Society. He shall collect, on or before the first day of June in each year, from the Treasurer of each component County Society the State per capita assessment. He shall at the expense of the Society give a bond for the faithful performance of his duties, which shall be approved by the Council as to amount, form, and surety. He shall make an annual report to the House of Delegates and monthly reports to the Council. He shall be a member of the Council.

Sec. 10. The Assistant Treasurer shall aid the Treasurer in the work of his office, and in the absence or disability of the latter, he shall perform the duties of the office until the Treasurer resumes the work, or in case of a vacancy until a successor shall be elected. He shall, at the expense of the Society, give a bond for the faithful performance of his duties, which shall be approved by the Council as to the amount, form, and surety. He shall be entitled to all the rights and privileges of the office while acting as Treasurer.

Sec. 11. *Concerning substitutions in office*
The Second Vice-President, the Assistant Secretary, the Assistant Treasurer and the Vice-Speaker shall serve as the First Vice-President, the Secretary, the Treasurer and the Speaker, respectively, whenever these

out vote except that in case of a tie the President, sitting as Chairman of the Board of Censors, shall cast the deciding vote.

The Board of Censors shall meet upon the call of the President. The Secretary shall prepare and submit the report of the Board of Censors to the House of Delegates.

Sec. 2 The Board of Censors shall have jurisdiction to hear and determine all appeals from decisions on discipline of component County Medical Societies or decisions of such societies which may involve the privileges, rights or standing of members, whether in relation to one another or to County Medical Societies or to this Society. Any member of any component County Medical Society feeling aggrieved by the decision of such Society may within three months after such decision appeal to the Board of Censors of this Society from the decision of such component County Medical Society by filing a notice of appeal with the Secretary of this Society, and the Secretary of the component County Society.

Sec. 3 Any applicant for membership in a component County Medical Society who may have been excluded from membership in such Society, may likewise appeal from the action of said Society excluding him. All decisions shall be subject to appeal to the House of Delegates.

Sec. 4 Any notice of appeal shall set forth in writing the name of the appellant, the name of such component County Medical Society and the date and substance of the decision appealed from and shall indicate the ground or grounds upon which each appeal is taken. If the appellant desires to be present in person or by counsel at the hearing of said appeal, the notice of appeal must so state. In that event, the appellant must file with the notice of appeal a bond in the sum of \$50.00 to cover the costs of said appeal. If the appellant fails to appear in person or by counsel upon the hearing of said appeal, he shall forfeit to the Medical Society of the State of New York such share of said bond as represents necessary expenditures incident to convening the Board of Censors for the hearing of said appeal.

Sec. 5 Upon filing a notice of appeal, the appellant and the component County Medical Society shall submit to the Secretary of the Board of Censors all records, minutes, letters, papers, and all written evidence, including a digest of all testimony not stenographically reported relating to the matter. All data so submitted shall be available only to the Censors, and on appeal, to the members of the House of Delegates.

Sec. 6 The Board of Censors shall consider the appeal on the data so submitted to it, and may affirm by a majority vote, modify or

reverse by a two-thirds vote of the Censors present and voting, the decisions so appealed from. If, in its opinion, the taking of further evidence is advisable, the Board of Censors may summon witnesses and proceed to take such evidence in such manner as it may deem proper and render its decision by a two-thirds vote of those present and voting, which decision shall be binding until reversed or modified by the House of Delegates.

Sec. 7 The Board of Censors shall investigate all charges preferred (a) by a member of a component County Society against any component County Medical Society of which he is not a member, and (b) by a component County Medical Society against another such County Medical Society or a member thereof, and the Secretary of the Board of Censors shall submit the report to the House of Delegates for action thereon.

Sec. 8 Any member or component County Society desiring to appeal to the House of Delegates from the decision of the Board of Censors shall within three months after such decision, file with the Secretary of this Society and the Secretary of the component Society a notice of appeal. Such notice of appeal shall set forth in writing the name of the appellant, the name of the component County Society, the date and substance of decision appealed from and the ground or grounds upon which such appeal is taken. The appellant must also state if he desires to be present in person or by counsel.

Sec. 9 Upon the filing of a notice of appeal the appellant and the Secretary of the Board of Censors shall submit to the House of Delegates the decision and all records, minutes, letters, papers, and all written evidence including a digest of all testimony not stenographically reported relating to the matter.

Sec. 10 The House of Delegates shall consider and decide the appeal on the data submitted to it, and may affirm, modify or reverse the decision so appealed from. Such decision of the House of Delegates shall be final and binding.

Chapter VII Duties of Officers

Sec. 1 The President shall preside at all meetings of the Society, the Council and the Censors. He shall be ex-officio member of the Board of Censors and of all committees. He shall appoint all committees not otherwise provided for, subject to the approval of the Council. He shall assign the special branches of work for which the members of the Council shall be responsible, subject to the approval of the Council. He shall also appoint all members of committees of this Council, subject to the approval of the Council. The President shall

gaged upon official business. Members of the Council, of the Board of Trustees and of the Board of Censors, shall be allowed traveling expenses. Members of Committees of the Council, and all special committees of the Society, shall be allowed traveling expenses. There shall be no allowance made for the expenses, traveling or otherwise, for any committee appointed pursuant to Chapter XI of these By-Laws. Proper vouchers must be filed with the Secretary and approved by the Board of Trustees before any of above allowances are made. The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. The vouchers of such expense shall be approved by the Board of Trustees before payment. Each District Branch shall be entitled to receive a sum not to exceed \$200, exclusive of the work done by the Secretary regarding notices, programs, etc., to defray the expenses of holding the annual meeting of such District Branch, provided a proper statement of such expense shall have been presented to the Secretary and approved by the Board of Trustees. All bills, claims or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Board of Trustees and such extension shall not exceed ninety days.

Chapter XI

Reference Committees

Sec. 1 At least one month before the meeting of the House of Delegates the Speaker shall appoint and publish in the JOURNAL such Reference Committees as he shall deem expedient for the purposes of the meeting. Immediately after the organization of the House of Delegates he shall formally announce the appointments of the Committees. Only members of the House of Delegates are eligible for appointment on the Reference Committees. Such Committees shall consist of five members, three members constituting a quorum, and shall serve during the meeting for which they are appointed.

Sec. 2 Reports of Officers, Council, Board of Trustees, Board of Censors, and Committees shall be printed at least one month before the meeting of the House of Delegates and sent to the members of the Reference Committee appointed according to Section 1, for their preliminary consideration. All recommendations, resolutions, measures, and propositions presented to the House of Delegates

and which have been duly seconded shall be referred by the Speaker to the appropriate Reference Committees.

Sec. 3 Each Reference Committee shall immediately consider such business as may have been referred to it and shall report promptly to the House.

Chapter XII

Special Committees

Sec. 1 Special Committees may be created by the House of Delegates to perform the special functions for which they are created. They shall be appointed by the officer presiding over the meeting at which the committee is authorized if such committee is to conclude its work during said meeting of the House of Delegates. The President shall appoint all other committees subject to the approval of the Council unless otherwise ordered by the House of Delegates.

Sec. 2 A Special Committee on Prize Essays consisting of three members, including the Chairman, shall be appointed by the President with the approval of the Council. Its duty shall be to receive all essays offered in competition for prizes which may be offered by this Society. The Committee shall make all necessary rules and regulations for the award of prizes subject to the terms of the deeds of gift, and shall report the result at the next annual meeting of the House of Delegates. It shall give notice through the Society's publication or by other methods within thirty days after appointment, of the amount of the prize and when the essays shall be submitted to the Committee.

Sec. 3 Any member of the Society shall be eligible to serve on Special Committees. All members of such committees, who are not members of the House of Delegates, shall have the right to present their reports in person to the House of Delegates and to participate in the debate thereon, but shall not have the right to vote.

Chapter XIII

Sections

Sec. 1 The Scientific Sections designated by the House of Delegates shall each organize by the election of a Chairman and Secretary. The Chairman shall be elected annually, the Secretary for such term as the Section may deem fit.

Sec. 2 The officers of the various Sections shall prepare programs for their Sections under the direction and subject to the approval of the Council.

Sec. 3 The election of officers of Sections shall be the first order of business of the first session of the second day of each annual

senior officers are incapacitated for service by injury, ill health of themselves or families, imperative professional duties, or by other mandatory absences. This shall be construed so as to include duty at or during meetings of the Council and Board of Trustees, as well as the other official duties designated for the senior officer. The senior officer shall promptly notify the junior officer of his incapacity and request his attention to said duties.

Sec. 12 Each President of a District Branch shall visit the County Societies of his district at least once a year and make a careful inquiry of the condition of the profession in each county in his district and shall report thereon to the House of Delegates.

Chapter VIII Direction of Activities

Sec. 1 (a) An officer to be known as the General Manager shall be employed by the Society. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability, and who will give his full time and undivided attention to the affairs of the Society. He shall have been in actual practice for at least ten years or shall have qualifications which in the opinion of the Council are equivalent to the same.

(b) The duties of the General Manager shall be as follows. He shall have general management of the executive details of the Society's business, subject to the Council, he shall be the coordinator of all activities of the Society, he shall act as Secretary of the House of Delegates, of the Council, of the Board of Censors and of the Board of Trustees. He shall be eligible for election as Secretary of this Society.

Sec. 2 An officer to be known as the Executive Officer shall be employed by the Society. He shall assist the General Manager. He shall be a member of the Medical Society of the State of New York, who has established a reputation for executive ability and who will give his full time and undivided attention to the affairs of the Society, subject to the direction of the Council. He shall have been in actual practice for at least seven years, or shall have qualifications which in the opinion of the council are equivalent to the same.

Chapter IX Meetings

Sec. 1 The notices of the annual and special meetings of the Medical Society of the State of New York, and its House of Delegates, and of regular meetings of the Council, of the Board of Trustees and the Board of Censors, shall state the date, place and hour and shall be

mailed in securely postpaid wrapper to each member of the body holding such meeting at least seven days before said meeting. The affidavit of mailing by the Secretary of the Society to the last recorded address of the member shall be deemed sufficient proof of the service upon each and every member for any and all purposes.

Sec. 2 Each member in attendance at the annual or special meeting of the Society shall enter his name and the name of the component County Medical Society to which he belongs in a register to be kept by the Secretary of the Society for that purpose. No member shall take part in any of the proceedings of such meeting until he shall have complied herewith.

Sec. 3 All members in good standing so registered may attend and participate in the proceedings and discussions of the general meetings of the Society and of the Sections.

Sec. 4 The following shall be the order of business at all general meetings of the Society:

- 1 Calling the Society to order
- 2 Address of welcome by the Chairman of the Committee on Arrangements
- 3 Reading the minutes of the last meeting
- 4 Miscellaneous business
- 5 President's address
- 6 Special addresses
- 7 Reading and discussion of papers

Sec. 5 Special meetings of the Society shall be called by the President upon the request in writing of two hundred and fifty members from the membership of at least ten component County Societies, and in case of the failure, inability or refusal of the President to act, such meeting may be called by a notice thereof subscribed by two hundred and fifty members from the membership of at least ten component County Societies.

Sec. 6 Special meetings of the House of Delegates shall be called by the Speaker upon the request in writing of sixty delegates, or at request of the Council, and in case of the failure, inability or refusal of the Speaker to act, such meetings may be called by a notice thereof subscribed by sixty delegates.

Chapter X Expenses

Sec. 1 Allowances for expenses incurred in the actual performance of official duties by officers, members of the Council, the Board of Trustees, of the Board of Censors and committees, and delegates to the American Medical Association shall be made in conformity with the following conditions. The President shall be allowed a per diem and expenses when engaged upon official business. All other officers shall be allowed traveling expenses when en-

gaged upon official business. Members of the Council, of the Board of Trustees and of the Board of Censors, shall be allowed traveling expenses. Members of Committees of the Council, and all special committees of the Society, shall be allowed traveling expenses. There shall be no allowance made for the expenses, traveling or otherwise, for any committee appointed pursuant to Chapter XI of these By-Laws. Proper vouchers must be filed with the Secretary and approved by the Board of Trustees before any of above allowances are made. The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. The vouchers of such expense shall be approved by the Board of Trustees before payment. Each District Branch shall be entitled to receive a sum not to exceed \$200, exclusive of the work done by the Secretary regarding notices, programs, etc., to defray the expenses of holding the annual meeting of such District Branch, provided a proper statement of such expense shall have been presented to the Secretary and approved by the Board of Trustees. All bills, claims or vouchers hereon provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Board of Trustees and such extension shall not exceed ninety days.

Chapter XI

Reference Committees

Sec. 1 At least one month before the meeting of the House of Delegates the Speaker shall appoint and publish in the JOURNAL such Reference Committees as he shall deem expedient for the purposes of the meeting. Immediately after the organization of the House of Delegates he shall formally announce the appointments of the Committees. Only members of the House of Delegates are eligible for appointment on the Reference Committees. Such Committees shall consist of five members, three members constituting a quorum, and shall serve during the meeting for which they are appointed.

Sec. 2 Reports of Officers, Council, Board of Trustees, Board of Censors, and Committees shall be printed at least one month before the meeting of the House of Delegates and sent to the members of the Reference Committee appointed according to Section 1, for their preliminary consideration. All recommendations, resolutions, measures, and propositions presented to the House of Delegates

and which have been duly seconded shall be referred by the Speaker to the appropriate Reference Committees.

Sec. 3 Each Reference Committee shall immediately consider such business as may have been referred to it and shall report promptly to the House.

Chapter XII

Special Committees

Sec. 1 Special Committees may be created by the House of Delegates to perform the special functions for which they are created. They shall be appointed by the officer presiding over the meeting at which the committee is authorized, if such committee is to conclude its work during said meeting of the House of Delegates. The President shall appoint all other committees subject to the approval of the Council unless otherwise ordered by the House of Delegates.

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Chapter XIII

Sections

Sec. 1 The Scientific Sections designated by the House of Delegates shall each organize by the election of a Chairman and Secretary. The Chairman shall be elected annually, the Secretary for such term as the Section may deem fit.

Sec. 2 The officers of the various Sections shall prepare programs for their Sections under the direction and subject to the approval of the Council.

Sec. 3 The election of officers of Sections shall be the first order of business of the first session of the second day of each annual

meeting To participate in the election of any Section, a member must be registered with such Section and must have recorded his name and address in the Section registry

Sec 4 Each Section shall hold its meetings at such times as designated by the Council

Chapter XIV District Branches

Sec 1 Each District Branch shall elect a President for two years, who shall be a District Delegate of the House of Delegates during his term in said office.

Sec 2 Each District Branch shall elect such officers as are provided for in its By-Laws, who shall attend the business meetings of the Branch

Chapter XV Component County Medical Societies

Sec. 1 (a) Eligibility for membership in County Medical Societies shall be determined by the Boards of Censors or Comitae Minorae of the County Medical Societies. Except by approval of the Council of the Medical Society of the State of New York, no physician shall be an active member in a County Medical Society other than that of the county in which he maintains legal residence or has his principal office.

(b) In order that a member desiring to correct his membership pursuant to the terms of this section shall have an opportunity to do so without impairing his status as an active member, a period of six months from the date of the adoption of this section must elapse before the Board of Censors or the Comitae Minorae of any County Medical Society shall have the right to declare a member ineligible by reason of the fact that he neither maintains a legal residence nor has his principal office in the jurisdiction of the County Medical Society of which he is then a member

Sec. 2 Whenever an active member in good standing in any component County Medical Society removes to another County in this State, his name upon his request, shall be transferred to the roster of the component County Medical Society of the County to which he removes, without cost to him, provided that he files a certificate with the Secretary signed by the President and Secretary of the component Society from which he removes as to his good standing in such Society. No member, however, shall be an active member of more than one component County Society, nor shall any component County Society accept a physician residing in another County in any other way than in accordance with the law governing transfers

When a member in good standing ceases to reside and practice in the State of New York

he shall *ipso facto* cease to be an active member of the Society and of his component County Medical Society at the end of the current year. His status shall be deemed that of a resigned member and all rights and title to any share in the privileges and property of the Society, the District Branch, or County Society, shall be deemed to have been forfeited by such action.

The dues of any member of the Medical Society of the State of New York may be remitted for the current year on account of illness when the request is made by the member's component County Medical Society

Sec 3 At its annual meeting each component County Medical Society shall elect a delegate or delegates to represent it in the House of Delegates of this Society in accordance with the Constitution and By-Laws of this Society

Sec. 4 The Secretary of each component County Medical Society shall keep a roster of its members in which shall appear the full name of each of said physicians, the date of his admission to such society, his residence, and the date when his license to practice medicine in this State was granted. He shall note any changes in said roster by reason of removal, death or change of name, revocation of license or other disqualification

He shall forward said roster and information together with the names and places of residence of each of the officers of said society and the names and residence of each delegate of the House of Delegates of said society to the Secretary of this Society sixty days before the date of its annual meeting

Sec. 5 The Treasurer of each component County Medical Society shall forward to the Treasurer of this Society the amount of the State per capita assessment on or before the first day of June of each year

Sec 6 Each component County Medical Society shall adopt a Constitution and By-Laws for the regulation of its affairs and may amend the same provided they shall be first approved by the Council before becoming effective. The Constitution and By-Laws of component County Societies must not be in conflict with the Constitution and By-Laws of this Society

Chapter XVI Miscellaneous

Sec. 1 No address or paper before the Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak upon any question before the House of Delegates for longer than five minutes nor more than once on any subject, except by the consent of a majority vote.

Sec. 2 All papers read before the Society by its members shall become the property of the Society. Permission may be given, however, by the Council or House of Delegates to publish such paper in advance of its appearance in the *NEW YORK STATE JOURNAL OF MEDICINE*.

Sec. 3 Any distinguished physician of a foreign country or a physician not a resident of this State, who is a member of his own State Association, may become a guest during any annual session upon the invitation of the President or officers of the Society, and may be accorded the privilege of participating in all the scientific work of the session.

Sec. 4 The rules contained in Robert's Rules of Order shall govern the Society and the House of Delegates in all cases in which they are not inconsistent or in conflict with the Constitution and By-Laws of the Society or the standing or special rules of the House of Delegates.

Sec. 5 Written charges may be preferred against any Officers, Councillors, Trustees, and members of Boards and Special Committees of the Society, for malfeasance or nonfeasance in office, by any member and transmitted to the President. The President shall order a trial upon said charges by the Council, or a Committee thereof, and in the event of such trial the accused shall be given at least ten days' notice of such charges and have full opportunity to defend the same, but no such officer or member of the committee shall be removed or otherwise disciplined except by a two-thirds vote of the Council. In case any such officer, or trustee, or member of a board or committee shall be removed, he may appeal from the decision of the said Council to the House of

Delegates, but, pending the determination of such appeal, he shall not exercise the functions of his office.

Sec. 6 Sections of the By-Laws which refer to the order of business and to reference committees may be suspended by a two-thirds vote of the House of Delegates.

Chapter XVII

Sec. 1 The seal of the Society shall be as follows



Chapter XVIII

Amendments

Sec. 1 Amendments to these By-Laws, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates.

Sec. 2 Notice of the proposed amendment shall be given at a previous annual meeting of the House of Delegates, and before the same can be acted upon it shall be published once before the annual meeting in the official bulletin or journal of the Society.

Sec. 3 The affirmative vote of two-thirds of the House of Delegates present and voting shall be necessary for adoption.

Sec. 4 Amendments made necessary by law shall be made either by the Council or House of Delegates whenever such necessity exists.

INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION

The International Assembly of the Inter-State Postgraduate Medical Association of North America, under the presidency of Dr. John F. Erdmann of New York City, will be held in the beautiful new public auditorium of St. Louis, Mo., October 18-22, with pre-assembly clinics on October 16 and post-assembly clinics October 23 in the hospitals of St. Louis.

The aim of the program committee, with Dr. George Crile as chairman, is to provide for the medical profession of North America an intensive postgraduate course covering the various branches of medical science. The program has been carefully arranged to meet the demands of the gen-

eral practitioner, as well as the specialist. Extreme care has been given in the selection of the contributors and the subjects of their contributions.

The St. Louis Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly.

A most hearty invitation is extended to all members of the profession who are in good standing in their State or Provincial Societies to be present. A registration fee of \$5.00 will admit each member to all the scientific and clinical sessions.

For further information, write Dr. W. B. Peck, Managing-Director, Freeport, Ill.

Public Health News

Tuberculin Testing with P P D.

The development of P P D, which is a standardized nontensitizing tuberculin, with instructions for uniform performance and interpretation, made it possible for the National Tuberculosis Association to make a more reliable and complete survey of the prevalence of tuberculosis infection in the United States than heretofore. The results of group testing with MA-100, the first standardized tuberculin to be recommended for trial by the Committee on Medical Research of the National Tuberculosis Association, were published early in 1936 and are still valid as a measure of tuberculous infection in groups studied for the first time. However, because of the possibility of MA-100 itself sensitizing children, and in view of the advisability of keeping the results of tuberculin testing aligned with those obtained with Old Tuberculin in the past, the National Tuberculosis Association replaced MA-100 with P P D in June, 1934, and began a new study of infection in the United States. The significant findings of that study are presented in this report.

During the two-year period following June 1934, the National Tuberculosis Association offered P P D for sale at a reduced price for group testing with the understanding that reports would be returned for statistical analysis. By this means, data were obtained for 85,709 first- and second-strength tests among 56,688 individuals in thirty states and the District of Columbia and the group tests were summarized with the result that the individual differences of single groups were minimized. The percentage of positive reactors among the 56,688 persons tested with first- and second-strength P P D was found to be 36.4. However, a more representative index of tuberculous infection in the United States was approached by adjusting the infection rates for age, color, nativity, and parentage according to the distribution of the population in the United States at the time of the last census in 1930. In this way, added importance was given to the high infection rates found among the adults and persons of foreign extraction in the groups tested, and the percentage of positive reactors was increased to 47.0 per cent.

Of the 55,688 persons included in this survey, 3,071 were tested with second-strength tuberculin only. The remaining 53,617 persons were tested with first-strength tuberculin and only 29,021, or 75 per cent of the 38,829 negative reactors, were retested with second-strength tuberculin. Positive reactions resulted from 27.6 per cent of the first-strength test and 16.9 per cent of the second-strength tests that followed negative reactions to first-strength tuberculin. However, there were 9,808 negative reactors to first-strength tuberculin who failed to receive second injections

of second-strength tuberculin. Assuming that these would have shown positive reactions to second-strength tuberculin in the same proportion as those who did receive second-strength tests, there are at least 1,500 undiscovered positive reactors because of the failure to complete tests with second-strength tuberculin.

Type of group. More than eighteen per cent of those tested with P P D were high-school students, seventeen per cent were college students, twelve per cent were elementary school pupils, and thirteen per cent came from clinics. Another thirteen per cent were Indians, and less than one per cent were teachers, nurses, and doctors. The remaining twenty-seven per cent came from miscellaneous or unclassified groups. Excluding the Indians reported, the highest infection rate was found among the 7,106 persons tested in clinic groups, with 53.2 per cent showing positive reactions to either first- or second-strength P P D. The lowest percentage of positive reactors, 18.5, was found among the 6,622 elementary school children in the groups tested.

Geographic areas. With the exception of the resort area, the states along the Eastern coast showed the greatest evidence of tuberculous infection, whereas the lowest percentage of positive reactors was found among the groups in the central states. The number of persons tested in each geographical area was not large enough to establish conclusive evidence concerning the prevalence of tuberculous infection in each section, but it is interesting to note that the results of this study are in agreement with those found among students tested in colleges in various sections of the United States.

Reprinted by permission of *Tuberculosis Abstracts*, July 1937

Urban and rural. Tuberculin tests among 32,477 individuals were reported either

typically urban or typically rural Of the 22,688 persons classified as urban residents, that is, living in places with a population of over 2,500, 33.6 per cent were found to be positive reactors to either first- or second-strength P P D There were 9,789 individuals included in the study of rural groups, of which 21.4 per cent evidenced tuberculous infection.

Age The reports included in this study indicated that there were fewer positive reactors proportionately among the children six years of age than there were at any other year of life. Following the sixth year of life, the percentage of positive reactors increased with age at an average rate of over one per cent for every year of life up to the age of twenty Adults twenty years of age and over included in the groups tested evidenced thirty-four per cent more tuberculous infection than the boys and girls reported under twenty years of age.

Sex Approximately the same number of males and females were reported to have had tuberculin tests with P P D The males showed a slightly higher percentage of positive reactors than did the females, the adjusted rate for males being 48.3 and that for females 45.9 per cent. There was a larger proportion of male than female positive reactors to P P D at almost every age group.

Contact and non-contact Almost fifteen per cent of the total number tested were reported to have had some definite contact with tuberculosis The percentage of positive reactors among them was 54.2 whereas only 33.3 per cent of those for whom no history of contact with tuberculosis was reported showed evidence of tuberculous infection. The infection rate indicated for contacts under five years of age was three times that found for non-contacts in the same age-group, but the proportion of positive reactors increased with age generally at a more rapid rate among the non-contacts than among the contacts.

Color and race The Negroes and Indians seemed to be more sensitive to P P D than the white persons tested. Of the white positive reactors in the groups tested with

second-strength tuberculin following negative reactions to test with first-strength tuberculin, sixty-eight per cent were detected with first-strength tuberculin, compared with seventy-five per cent for the Negroes and eighty-nine per cent for the Indians White persons comprised seventy-four per cent of the entire number included in the study, and the percentage of positive reactors among them adjusted for age, nativity and parentage was 46.5 The Negroes tested showed only one per cent more positive reactions proportionately than did the whites, the infection rate for the Negroes adjusted for age being 47.8 per cent. The nonadjusted rate for whites was fifteen per cent lower than that found for Negroes, but it was thought that the adjusted rates represented more closely the prevalence of infection in the general population The percentage of positive reactors found among the 7,159 Indians tuberculin tested was 72.4, an infection rate over twenty-five per cent higher than the adjusted rate found for the combined groups of all ages, colors and races included in the study More than half of the Indians tested were found to be positive reactors at every age after the seventh year of life, and nine out of every ten tests at twenty years of age and over showed evidence of tuberculous infection.

Nativity and parentage Nativity and parentage seemed to be significant factors in tuberculous infection among the white persons tested Of the 31,318 native-born Americans of native parentage, 27.6 per cent evidenced tuberculous infection, whereas 38.4 per cent of the 6,674 native-born of foreign stock and 61.2 per cent of the 814 foreign-born responded with positive reactions to P P D.

Unfortunately, the number reported for each country was too small for valid conclusions, but a notably higher infection rate was indicated for the foreign-born from the European countries than for those removed from the same country by one generation.

Reference

A Summary of the Results of Group Tuberculin-Testing with P P D (Purified Protein Derivative) in the United States Jessamine S Whitney and Isabel McCaffrey, Am Rev of Tuberc., May 1937

"To what do you attribute your remarkable health?"

"Well," replied the very old gentleman, "I reckon I got a good start on most people by bein' born before germs were discovered

—Exchange

Length of Life does not depend so much on the star under which one was born as it does on the color of traffic light on which one tries to cross the street.

—Bulletin Med Soc Co of Erie

Medical News

Allegany County

WELLSVILLE PHYSICIANS have announced a change in schedule for the months of July and August, whereby six of the doctors will close their offices Saturday nights while one doctor will be available for emergency cases. The same procedure will be followed each Thursday afternoon and evening.

Delaware County

DR JOSEPH LAWRENCE, Executive Officer of the State Society, addressed the quarterly meeting of the Delaware County Medical Society at Downsview on June 15.

Herkimer County

DR J J McEVILLY won the Herkimer County medical golf championship at the Mohawk Valley Country Club on June 30.

Doctor McEvilly turned in the lowest net tally and won the president's prize. Dr G A Burgin, Little Falls, was winner of the vice-president's handicap prize and Dr H J Sheffield, Frankfort, won the blind prize award.

Kings County

THE MEDICAL PROFESSION in Brooklyn will be aided considerably by the proposed merger of the New York and Brooklyn units of the Federation of Jewish Charities, it was predicted at a dinner meeting tendered to more than 300 of the borough's doctors by Nathan S Jonas, president of the Jewish Hospital, held in the Unity Club. The influx of fresh money from the New York division will stimulate hospital and clinic welfare work to the advantage of local doctors, Supreme Court Justice Mitchell May, past president of the Brooklyn Federation, and Lawrence Marx, president of the New York Federation, said.

DR ONSLOW A GORDON, eighty-four, Brooklyn surgeon and former president of the Medical Society of the County of Kings, died after a brief illness at his Summer home at Lake Keoka, in Maine, on July 4. Dr Gordon had practiced in Brooklyn for fifty years, and for forty-eight years was a member of the staff of St. Mary's Hospital. A tribute to his long professional career was paid him four years ago when

more than 100 physicians, clergymen and prominent laymen attended a dinner held in the Montauk Club, Brooklyn, in honor of his golden anniversary as a surgeon.

Madison County

THE MADISON COUNTY Medical Society and Women's Auxiliary held a joint outing Thursday, July 15, at Lake Moraine. A broiled steak supper was served.

New York County

ABOUT FORTY PHYSICIANS in New York County are to be hailed before the State Medical Grievance Committee for disciplinary action in irregularities in connection with fraudulent accident indemnity claims during recent years, it was announced on July 8 at a luncheon conference of the committee, held in the Academy of Medicine. The conference was an adjunct of the annual meeting of the committee, and was presided over by Dr Orrin Sage Wightman, the chairman.

District Attorney William C Dodge, Assistant District Attorney Bernard Botin, head of the Accident Fraud Bureau, which in the last year has broken up several rings of fraudulent accident claims, including lawyers and doctors, were guests of the committee. Others present were Sol Ullman, Assistant State Attorney General, who is legal adviser to the committee, and the members of the committee.

The committee adopted a resolution commending District Attorney Dodge and Assistant District Attorney Botin for the "effective work they have accomplished in the recent accident fraud investigation toward purging the medical profession."

District Attorney Dodge assured the gathering that the bureau would be continued as a permanent branch of the District Attorney's office.

Mr Ullman said the committee already has received papers in disciplinary charges against twenty-eight physicians in New York County which had been developed by Assistant District Attorney Botin in the investigation started last July at the request of the Appellate Division, and bar association papers are being prepared against about ten more, he disclosed.

"These represent the more flagrant of-

fenders," Mr Botein said "Most of them were definitely allied with fraudulent accident claims or workmen's compensation rings"

He added that "their transgressions usually took the form of furnishing medical certificates for non-existent claimants or certifying or testifying to severe injuries in numerous cases after most cursory examinations"

District Attorney Dodge remarked that, in addition to the physicians to whom Mr Ullman had referred, ten physicians already had been convicted in Special Sessions by Assistant District Attorney Botein in fake accident indemnity claims and two more are awaiting trial

He commented, however, that Mr Botein also had uncovered some physicians not allied with any of the fake accident rings but who had furnished fraudulent certificates to patients and friends, when requested. He recommended that the committee and the various medical societies of the State launch immediately "a thorough-going educational and disciplinary campaign to eliminate this practice"

Oneida County

MEMBERS of Oneida County Medical Society gathered at Trenton Falls for their annual outing on July 13

The society voted to name a committee to help examine 4-H boy and girl contestants from the county who are going to the State Fair Such a move was suggested to various county groups recently by the State Medical Society

Dr William Hale, Jr, president, announced that Dr M. D. Graham's 1936 speech as retiring president, and Dr B. P. Allen's of 1933 had been published recently Dr Charles H. Goodrich, president of the State Medical Society praised the public relations council for its education work in the past year, and Dr Joseph Lawrence, executive officer of the state organization, reviewed the cancer and tuberculosis drives and told of plans for the district meeting in Lowville Sept. 2

Ontario County

DR. GEORGE E. WELKER was elected president of the Geneva Academy of Medicine succeeding Dr R. E. Doran at the regular meeting at the Geneva Country Club on June 17 Other officers elected were vice president, Dr S. J. Morabito, treasurer, Dr M. D. Dickinson, Jr, secretary, Dr Philip W. Skinner The new officers will take office

at the next meeting in September Guest speaker was Dr Norris Maslon, director of the Warren County Bacteriological Laboratory at Glens Falls, N. Y. His subject was "The Relationship between the Medical Profession and the County Governing Boards"

Orange County

THE INNOVATION of HOLDING a meeting at which its own members read papers and conducted discussions on scientific subjects was tried with success by Orange County Medical Society when the society met in the dining room of St. Luke's Hospital on June 15

Registered nurses of the county were guests, and Miss Ella Vincent, president, headed a delegation of members of the Alumnae Association of St. Luke's Training School for Nurses, and a group of nurses of Newburgh Health Department attended After the meeting luncheon was served

The scientific program Tuberculosis of the Genito-Urinary Tract, Dr Harold Snyder, discussion by Dr D. R. Gordon, Tumors of the Neck, Dr Ian Macdonald, discussion, Dr E. C. Thompson, Amnesia-Altesia in Labor, Dr David Tolmie, discussion by Dr H. F. Morrison

Oswego County

THE OSWEGO COUNTY Medical Society held a luncheon meeting on July 1 at the Oswego County Sanatorium. Dr Fred Metilde, member of the Monroe County committee on social hygiene, was the principal speaker

Queens County

DR. HAROLD EICHACKER, president-elect of the Queens County Medical Society, whose suit to collect an alleged overpayment of \$209 from the New York Telephone Company was dismissed last June by Justice Harold Crawford in the Municipal Court in Ridgewood, announced on July 17 he had filed notice of appeal

E. F. W. Wildermuth, attorney for Dr Eichacker, said the appeal would be argued in the Appellate Court in October Dr Eichacker in his suit claimed he should have been charged for his telephone at residential rate and had been billed at the business rate.

Rensselaer County

THE ANNUAL OUTING OF THE Rensselaer County Medical Society was held on June

24 The program began at 1 P M with a buffet luncheon followed by golf and softball during the afternoon and a dinner at the club house at 6 30 During the afternoon, a "kickers" handicap golf tournament was held with Dr Robert E Plunkett capturing the first prize, a set of matched irons Dr D Edward Rowan took second prize, a leather golf bag, and Dr Clayton L Gifford won third award, a box of golf balls In the softball game, the "Oldsters" demonstrated fine fitness in defeating the "Youngsters" by 9 to 5 Dr Walter H McShane pitched for the winners, with Dr F S Haverly, catching The battery for the "Youngsters" was Dr Gilbert A Clark, pitch, and Dr Hugh V Foley, catch

Rockland County

DR RUSSELL E BLAISDELL, medical superintendent of the Rockland State Hospital, represented the psychiatrists of the United States as the single delegate to the International Congress of Mental Hygiene in Paris during the week of July 19, as delegate of the American Psychiatric Association. Two other Rockland State Hospital doctors, Dr Hamlin A Starks and Dr Reginald N Taylor, and Mrs Starks also went to the convention

St Lawrence County

DR S W CLOSE presided at the monthly meeting of the St Lawrence County Medical Society at the Country club, in Ogdensburg, on June 24 Dr W H Mulholland, president, was unable to be present.

Following luncheon the matter of having a joint meeting with the County Dental Society was discussed and a committee comprising Drs R L Stacy and M J Stearns were named to take up the matter with the dentists

While the doctors played golf in the afternoon their wives enjoyed bridge in the clubhouse.

Suffolk County

DR. ALBERT E PAYNE, who died on June 21 at the age of sixty-five, was a past president of the Suffolk County Medical Society

Washington County

THE MEDICAL SOCIETY of the County of Washington met on July 6 at the Central School Annex in Fort Ann The program "The Friedman Modification of the Ascheim-Zondek Test for Pregnancy Its

value in differential diagnosis with a practical demonstration of the test."—Dr Harold A Peck

"Report of a Case, Carcinoma of the Lung"—Dr Royal E LaGrange.

"Some Phases of Tuberculosis, with a Differential Diagnosis from Carcinoma of the Lung"—Dr Lyman I Thayer

The October (Annual) Meeting will be held at Hudson Falls

Westchester County

PLANS FOR A NEW HEALTH laboratory, which would make possible periodical examination of all food handlers, dairy workers, domestics, criminals or any who might in any way be germ carriers, were put before the Greenwich Board of Health on June 7 by Dr Albert E Austin, health officer, who presented the plan earlier in the day to a meeting of the Family and Child Welfare Committee of the Greenwich Community Chest and Council

Control of venereal diseases, called by the American Public Health Association the "greatest need of Greenwich today," is one of the main objectives in the program planned in conjunction with the installation of the laboratory Dr Austin said that he would present a preliminary survey of the need for extension of present laboratory facilities to the Board of Health, and after its approval, to the Board of Estimate and Taxation and subsequently to a Representative Town Meeting

The plan would entail the hiring on full time of Dr Frederick Remer, present town bacteriologist, and the addition of more technicians to the health staff Dr Austin did not give any estimate of the cost of the project.

Fred J Loase, superintendent of Greenwich Hospital, at the committee session at the Department of Public Welfare, suggested that the Town pass an ordinance requiring periodical examination of food handlers, and Miss Georgiana B Davids, commissioner of public welfare, suggested health regulations for the periodical examination of all domestics

THE GOLF CHAMPIONSHIP OF THE American Medical Association was brought to Mount Vernon by Dr William J Van Wie who carded 75-73-148 in the title tourney of the organization held at the Seaview Club in Atlantic City The runner-up for low gross honors was another Mount Vernon player, Dr Edmund Sullivan with 77-74-151

DR ROBERT H SHANAHAN, chairman of the board of managers of the Yonkers City

Laboratory, and B W Petsche, a member of the board since its inception twelve years ago, have resigned their posts, charging "politics" in the Health Department.

Dr Shanahan also resigned as a member of the advisory board of the Health Department.

Although they declined comment, preferring their letters of resignation to Mayor Loehr "to speak for themselves," it was regarded by the local newspapers as "significant" that they decided to relinquish their posts twenty-four hours after the appointment of Dr Eugene F McGillian as Health Commissioner was announced by Mayor Loehr.

AN AMUSING REPORT of a medical athletic meet on June 22 appears in the *Portchester Item*. It runs as follows:

Greenwich surgeons performed a major operation yesterday upon the physicians of Greenwich in a soft-ball game at the Innis Arden Golf Club. The surgeons ran up a score of 37 runs. The physicians ran up a score of two runs and a high temperature.

The event was the annual outing and field day of the Greenwich Medical Society, a type of therapy designed especially for doctors. Dr Payson B Ayres produced symptoms of aggravated heart conditions with his hurling for the surgeons, but Dr Don J Knowlton, who twirled for the physicians, couldn't have found the plate with a stethoscope. He was roundly knocked out of the box in the pitcher's battle.

Dr Ayres, as a surgeon, was given the distinct advantage, being able, with skill and precision, to cut the corners of the plate. Dr Knowlton probed and diagnosed and couldn't find it, nor was he any more successful in the consultation that followed. He was taken to the emergency bench for treatment.

Dr William Burke served as umpire of the game, a thankless task, with only the ethics of the profession preventing him from giving his own diagnosis of the trouble with both teams.

With a perfect bedside manner, Dr Burke came out first on the green, winning a putting contest. Dr Thompson carried off the archery contest. Dr Albert E Austin led his band throughout the festivities. The dinner was served at the club in the evening, and prizes were presented to the winners of the day's events. Dr Thompson was elected president of the society, and Dr Reynolds, secretary-treasurer.

FREE TUBERCULIN tests have been ordered by Health Commissioner Eugene F McGill-

lian of Yonkers for all children brought to the city clinics for pre-school examination and treatment—whether at City Hall, the Health Center or the four welfare stations.

Yonkers thus becomes the "first community in the United States to extend tuberculin tests to pre-school children."

Wyoming County

DR GEORGE S SKIFF, of Gainesville, who was feted at a dinner on June 9 by the County Medical Society in celebration of his fifty years as a physician, died at his home on June 27. He was chairman of the board of managers of the Wyoming County Community Hospital.

Yates County

MORE THAN 500 members of the Lake Keuka Medical and Surgical Association held their 38th annual convention in Penn Yan on June 24.

The association includes 22 counties in New York and four in Northern Pennsylvania.

Following an address of welcome by Dr J Hillis Miller, president of Keuka College, Dr Henry J John of Cleveland read a treatise on "The Use of Protamine Insulin and Crystalline Insulin." A discussion of the paper by Dr John R Williams of Rochester, Dr Nelson G Russell, Dr Clayton W Green, and Dr Byron D Bowen, all of Buffalo, followed.

Dr Geza de Takats, assistant professor of surgery, University of Illinois, spoke on the diagnosis and treatment of convulsive seizures not due to epilepsy. His subject was discussed by Dr Allen O Whipple, New York, Dr S D Conklin, Sayre, Pa., and Dr A W Holmes, Penn Yan.

"The Carcinoma of the Right Colon: Its Diagnosis and Treatment," was the subject of Dr Claude F Dixon's speech. He is associate professor of surgery, Mayo Foundation, University of Minnesota. Six physicians led in its discussion—Dr Herbert A. Smith, Buffalo, Dr Arthur W Booth, Elmira, Dr John J Morton, Rochester, Dr E C Foster, Penn Yan, Dr A G Swift, Syracuse, Dr A. H Aaron, Buffalo.

Dr Stafford L Warren, associate professor of medicine, University of Rochester, presented a thesis on "The Indications and Contra-Indications and Results of Fever." Three doctors participated in the discussion. Dr Lee A. Hadley, Syracuse, Dr L M Lockie, Buffalo, and Dr C N Haines, Sayre, Pa.

Hospital News

The Labor Situation

IN VIEW OF THE almost nationwide reports of labor trouble in industry and of rumors of similar disturbances in hospitals, the Editor of *Hospital Management* addressed a letter to representative hospital executives in various parts of the United States asking for a brief report on local conditions. The replies were most gratifying in both the promptness of the response and in the news contained.

One-third of the replies were from sections in the east, south and midwest, and indicated a lack of trouble, either active or threatened. In the remaining parts of the country it was reported that there was union activity in many places, but that difficulties either had been or were being settled amicably. In only one section was any trouble anticipated. On the whole, the situation appears to be that on the part of the employees in the lower wage categories, requests or demands are being generally

made for increase in pay and improvement in working conditions, but the employees, whether unionized or not, are showing a spirit of compromise rather than of seeking trouble.

In the professional groups only one or two sections report any hint of unionization. The already existing organizations are looking after the interests of their members and from all parts of the United States come reports of movements for shorter hours and increased rates of pay.

On the part of the hospital administration there appears to be general recognition of the necessity of pay increases and changes in working conditions together with a genuine desire to adopt a fair schedule as rapidly as the financial situation will permit. From the general tone of the information received it is probable that there will be some friction in a few localities, but no serious trouble.

Workings of the Eight-Hour Law

THE CHANGE TO EIGHT-HOUR SHIFTS in the New York City hospitals on July 1 necessitated the employment of 2793 additional persons, according to Commissioner Goldwater. Of these 1100 in the non-nursing groups came from the WPA roles, but only 151 nurses were obtainable from that source. In its efforts to get nurses the department wrote to more than 1400 schools of nursing, made an extensive advertising campaign, and conducted recruiting drives in local districts, with very satisfactory results.

What the change means to the nurses is pictured by the Brooklyn *Eagle*, which sent a reporter to interview some of them in the Kings County Hospital.

Breakfast in bed sun bathing
time to read the papers and the movies

That's what the first consecutive eight-hour day meant to the nurses at Kings County Hospital, it says.

For many of these "ladies in white" the inauguration of the new working schedule meant real leisure for the first time in a

dozen years, so it was with unusual jubilation that they described to an *Eagle* reporter how they spent their first "time off."

Bridie Collins told how she got up at 9 o'clock instead of 6. She had breakfast at home and took her time over it. Then she visited some friends, then she took a walk in the sunshine and got to work at 3 P M.

"It's a grand world, seen all of a-piece, like that," she beamed. "You will feel that you are really living among people again. Why, I've been here for nine years and this was the first real time-off I've had. 'After the nice morning I spent I couldn't be irritable or crabby."

Anne Murphy got up at 9 and "ate eggs in peace for once."

"Why, I was 'a lady for a day,'" she exclaimed, "and when I got to work at 3 P M to go on duty for eight hours I felt like a new woman."

Grace Kearns declared "It wasn't what I had for breakfast, but that I had it at all. Afterwards I actually went out and bought some new uniforms."

Bernice O'Neill drew the early shift, which left her the evening to herself

She used to grab a cup of coffee and a roll for breakfast, but yesterday she dawdled over her repast for half an hour

"But it's after work that the fun will begin," she laughed, "I'm going to the

movies—imagine being able to go to the movies"

The atmosphere of "this freedom" extended even to the office of the superintendent of nurses Marion R. Doyle, head of the training school, Rebecca Taylor, her assistant, and Anne Walsh, were all smiles

The Hospital Staff and the County Society

HOSPITALS ARE COMING TO recognize more and more the advantage of selecting applicants for staff positions who are members of their County Medical Societies. The County Society can help the hospital in many ways, especially in its effort to raise the standards of its medical staff. As a matter of fact, says Dr. Joseph C. Regan, Chairman of the Membership Committee of the Medical Society of the County of Kings, in the Society's *Bulletin*, without county society membership, the hospital staff physician is, in most instances, inarticulate as a representative of any institution. The hospitals have not overlooked the legal protection provided for Society members in malpractice suits.

It is recognized that the "machinery" of the County Medical Society with its Board of Censors, its Comitia Minora and its many committees, actively working for the welfare of the physician, is most valuable and helpful to all hospitals in maintaining a high standard of medical ethics and a progressive and scientific attitude toward medical practice. Hospitals, therefore, have begun to ask applicants for professional appointment—"Are you a member of your County Medical Society?"

In order to learn the present policy of the various hospitals on the question of

County Society membership of their staffs, adds Dr. Regan, the following letter was addressed to the Hospital Superintendents under date of March 10, 1937

The Membership Committee would like to know what policy your Medical Board has adopted with regard to your entire professional staff (attending and courtesy) being members of their County Medical Societies. We would like to have this information on hand for comparative purposes.

Your cooperation in this matter will be greatly appreciated and if the Committee can be of assistance to you at any time, please call upon us.

Replies from nearly all of the hospitals have been received. The spirit manifested in these responses is one of great cooperation and interest.

The information obtained from the hospitals has been classified. The results are most encouraging. The Medical Boards of many of the institutions have already made it obligatory for applicants for staff appointments to be members in good standing of their county medical societies. In several hospitals the regulation is that the entire professional staff must be members of their county medical societies. Each day more data is coming in which shows increased activity on the part of the Medical Boards

Improvements

THE NEW \$1,250,000 BUILDING of the Jewish Memorial Hospital, at Broadway and 196th St., New York City, is practically completed and will be dedicated and opened before the end of the summer

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THE CORNERSTONE FOR THE \$1,000,000 Frances Schervier Hospital and Home for the Aged at West 227th Street and Independence Avenue, the Bronx, was laid on June 20. The six-story building, already partly finished, will house 410 aged guests

and patients after it is completed at the end of the year

A CAMPAIGN IS ON to provide a complete newly equipped additional building for the Swedish Hospital in Brooklyn. The building was bought in 1929, but plans to equip and use it were halted by the depression.

PLANS ARE BEING MADE for a new addition to Beth-El Hospital in Brooklyn

The hospital is now overcrowded and has a waiting list for the first time since it was opened fifteen years ago

WASHINGTON HAS APPROVED a federal grant of \$382,500 to aid the construction of an \$850,000 addition to the Binghamton City Hospital, but as the prospect of raising the other half-million is somewhat clouded by doubt, a proposal is being made to add a forty-room private wing to cost \$100,000 and so planned that it can be included in the larger project later. Present accommodations are badly overcrowded.

THE \$168,000 ANNEX TO THE Oneida County Hospital at Rome was dedicated on July 1. It was financed by PWA and county funds.

THE \$80,000 PROVIDED FOR the maternity annex to the Jamestown General Hospital has been expended, and the annex is only fifty-five per cent completed, according to officials in charge of the work, as quoted in Jamestown papers. The Board of Public Welfare has asked for an additional appropriation of \$65,000 to complete it.

Newsy Notes

TOWNSEND HOSPITAL AT Gowanda has been changed from a privately-owned to a charitable institution.

ACTIVE FIELD WORK in Oneida's participation in the Central New York Hospital Service has been launched with Everett L. Baker as resident manager.

RED CROSS FLAG DISREGARDED

THE TRADITIONAL RED CROSS that marks the tents of wartime ambulance workers is disappearing from the modern battle field according to Dr. Edward H. Barsky, American surgeon who has returned to New York after establishing six field hospitals in Loyalist Spain.

"The modern field hospital has to be carefully camouflaged," he says. "Its windows have to be shielded to keep in light at night and prevent reflections in the daytime from making its position visible. This has become necessary because hostile aviators appear unable to recognize a red cross when they see one."

"Operating rooms are being built on wheels today," added Dr. Barsky. "They can thus be more quickly moved wherever they are wanted." He will return to Spain in September, he hopes, with more volunteer ambulance units.

The American hospitals, four of them near Madrid and two on the Cordoba front, were established at a cost of \$118,045 and are manned by ninety-nine American sur-

geons and nurses, with much larger Spanish staffs under their supervision.

All these hospitals are now directed by Dr. Donald H. Pitts, former U. S. Army Surgeon of Elk City, Oklahoma, who replaces Dr. Barsky.

The first six months work of the American medical units has met with the highest approval of the Spanish Health Ministry and is regarded as a model of the hospitals from various countries operating in Spain today.

"We feel proud of the achievements of our people in Spain and the high praise of the Spanish government," Col. Crookston, executive secretary, says. "It is good also to know that when Spanish and American soldiers with the Loyalist forces talk about being hit, they hope they will be sent to the American hospitals. But it is even more encouraging to hear however, that our hospitals have saved thousands of lives of not only the combatants, but also many women and children, innocent victims of war."

OBEDIENCE BY DISOBEDIENCE

THE NEW YORK CITY Department of Hospitals has been able to obtain enough additional nurses to inaugurate the eight-hour day only by ignoring a requirement of the State Education Department, Commissioner S. S. Goldwater discloses.

The Education Department has a rule that hospitals which operate schools of nursing may employ only nurses holding New York State registrations.

The Department of Hospitals, to obtain State charters for its nursing schools, has complied strictly with this rule in the past. But it isn't complying with it any longer.

Forty per cent of the 750 nurses added to the city's staff in the last two or three weeks came from other States, Dr Goldwater said. The department, is accepting their registrations in those States as proof of their eligibility for employment here.

"We couldn't do otherwise under the circumstances," Dr Goldwater said. "It was impossible to get in New York State anything like the number of additional nurses we required."

He added that he thought the State Educational Department "would be lenient."

"Some of the private hospitals which have nursing schools also have been forced to take nurses from other States. The violation of rules has been tacitly condoned and their nursing school charters have not been suspended," he said.

Dr Goldwater originally estimated that 1,281 additional graduate nurses would be needed to enable the department to put the eight-hour law into effect. So far only about 750 have been obtained. But the shorter working hours are now observed in all city institutions, it was stated.

THE ASSOCIATED HOSPITAL SERVICE, of New York City, has paid \$1,500,000 to 240 member hospitals in the metropolitan area in two years. Its membership has passed the 400,000 mark.

THE OPERATING LOSS of the New York Hospital was reduced from \$1,070,262 to \$914,646 in 1936, according to the 165th annual report. The 1935 deficit was reduced by more than 50 per cent in 1936.

"Greater efficiency and savings in cost of operation," said Henry G Barbey, president of the society, "account for only a share of the better results. Increased income, both operating and non-operating, has been a major factor. Legacies and special gifts received during the year far exceeded the amount drawn from general funds to meet the current expenses."

With its affiliated units, the Society of the New York Hospital cared for a total of 18,733 bed patients and 46,016 out patients during the year.

A LADIES AUXILIARY for the Grey Oaks Hospital, Yonkers city institution for tubercular patients, was organized in July.

At the Helm

Mrs THOMAS V D BUDD was re-elected president of the Northern Dutchess Hospital Auxiliary at the annual meeting.

FORMAL APPOINTMENT OF Dr John K Deegan as superintendent of the new Herman M Biggs Memorial Hospital is announced by Dr Edward S Godfrey, Jr, state commissioner of health. Doctor Deegan has been identified with the state division of tuberculosis for more than four years, and has served as acting physician in charge of the Biggs Hospital since it was first opened a few months ago.

Dr. R G WILSON has been elected president of the medical staff of St Jerome's Hospital in Batavia.

THE DISCOVERY OF LARGE DEFALCATIONS

by a too-much trusted employee has caused something like an earthquake in the affairs of the Jamestown General Hospital, and Dr John S Hickman has been placed in full control of the institution, with power to appoint and remove any persons connected with it.

THE FOLLOWING HOSPITAL OFFICIALS HAVE BEEN ELECTED

John L O'Connor, to be president of the A Barton Hepburn Hospital at Ogdensburg.

A C Saunders, to be president of the Nathan Littauer Hospital at Gloversville.

Max DeKaye, to be president of the Brooklyn and Long Island Hospital Council.

William J Bradford, to be president of Huntington Hospital.

Medicolegal

LORENZ J. BROSNAN, Esq.

Counsel, Medical Society of the State of New York

Evidence—Opinion Testimony Based Upon False Hypothesis

An attempt to make out a case of malpractice against a physician based upon assumptions rather than facts established by testimony was the subject of an interesting case recently brought before an Appellate Court in one of the Pacific Coast States *

The action was brought by the husband and daughter of B to recover damages for her death which was claimed to have been caused by the negligence of C, a physician. The complaint charged that the defendant had been employed to administer an anesthetic during an operation for the removal of the appendix and drainage of the gall-bladder of the patient. The charge was that defendant had negligently given the anesthetic so that an insufficient supply of oxygen was administered with ethylene gas, carbon dioxide gas, and ether, with the result that the patient met her death by asphyxiation.

It appeared that toward the completion of the operation it was noticed that the anesthesia had become too light, and the operating surgeon requested that Doctor C provide a deeper anesthesia. C then noticed that the oxygen from the oxygen tank was rapidly becoming depleted, and he called upon a hospital orderly for a fresh supply of oxygen. Another tank was provided and about five minutes was consumed in getting the new tank connected. During that interval the ethylene gas was not shut off, and the patient remained under anesthesia. The mask remained on or over the patient's face. At about the same moment that the fresh oxygen was administered the patient ceased to breathe, and it was impossible to revive her.

The defendant's theory of the cause of death was that it was brought about by heart failure and surgical shock unrelated to the anesthesia. He testified that while the tanks were being changed he kept his fingers under the edges of the mask so as to permit the patient to breathe oxygen from the air. The testimony of witnesses present as to whether the anesthetist so raised the mask was conflicting.

The uncontroverted testimony as to the symptoms of the patient preceding death was significant. The last blood pressure reading taken five minutes before cessation of breath-

ing showed a marked drop in the systolic blood pressure from 135 to 105. Normal breathing continued up until the time breathing stopped, and cyanosis followed cessation of respiration.

The trial resulted in a verdict for the plaintiffs. The verdict was based solely upon the opinion testimony of a certain Doctor T, called as expert for the plaintiffs who in answer to a hypothetical question gave it as his opinion that death resulted from asphyxiation.

Upon an appeal from the judgment of the trial court, the testimony so given by Doctor T became the turning point of the entire matter and it was found by the Appellate Court that his testimony was based upon a false hypothesis and was of no weight whatsoever as opinion evidence of the cause of death.

The Appellate Court, reviewing the record found it to have been uncontroverted from the testimony that the symptoms of an over dose of ethylene gas are cyanosis before death, labored, rapid, shallow breathing, and a drop in blood pressure following cessation of respiration. It was testified that in asphyxiation cessation of respiration would not precede a drop in blood pressure, and that a drop in blood pressure prior to cessation of respiration would indicate heart failure.

The hypothetical question, however, which was put to Doctor T, plaintiffs' expert, assumed that the blood pressure readings were normal during the anesthesia and omitted reference to the last reading. The question also failed to assume normal breathing up to cessation of breathing. The hypothetical state of facts also assumed that cyanosis occurred before breathing ceased. However, upon the hypothesis as given had been based the only testimony to in any way support a finding that Doctor C had been guilty of malpractice. Doctor T in fact had upon the trial made the following concession: "It is my opinion that in death by suffocation, respiration would cease and the blood pressure would drop following, whereas in death from heart failure the blood pressure would drop before respiration ceased."

In reversing the judgment of the lower court, the Appellate Court said in its opinion

**Forbis v. Holzman*, 45 Pac. (2nd) 215

No one can doubt the extreme difficulty encountered by a jury or trial judge in an endeavor to determine the true cause of death in a case such as this. They are entitled to receive the honest opinions of expert witnesses, predicated upon facts established by the evidence, and the opinions are of no value if they are based upon essential facts which are not given in evidence, upon facts which are directly contrary to the evidence, or upon statements omitting facts which are important, if not necessary, for the witnesses to take into consideration in formulating their opinions. Intentional unfairness need not exist to justify the rejection of such evidence. The result is the same if the fault lies in honest mistake or in an excess of zeal to achieve the desired result. The questions asked may be unfair, and the answers may be unfair, if based upon a wrong hypothesis, notwithstanding the good intentions of counsel and witness.

The foregoing considerations condemn the testimony of the witness T and brand it as a type of opinion evidence unworthy of credence and unacceptable as evidence. The hypothetical case as to which his opinions were given was not that of Mrs B.

We give full recognition to the rule that a very considerable latitude is allowed in the statement of hypothetical facts calling for opinions from expert witnesses. Such statement need not contain all of the facts testified to and of course, it may assume facts most favorable to the theory of the party for whom the witness is testifying. There may be an allowable variation between the facts assumed and the actual facts proven. But it is said in this case that the opinion can have little, if any, value unless the material facts assumed in such question are substantially true.

Where the material facts upon which the opinion is based are untrue, and the erroneous hypothesis is disclosed by the questions, or by the answers of the witness or by his testimony on cross-examination, the opinion itself becomes false and misleading. It tends to obscure the truth and to lead juries or courts into erroneous conclusions of fact. Opinion evidence lacking a true foundation of fact is incompetent. It carries no weight in the trial of a case and carries none when considered on appeal. A finding based wholly upon such incompetent evidence is without support.

Diabetic Gangrene

A doctor engaged in the general practice of medicine, at the request of an older practitioner, took over the latter's practice while he went on a vacation. Among the patients who came under the care of the substitute

physician was a man fifty-six years of age, who had been under insulin treatment for diabetes. The doctor first saw the patient when he was called to his home and found him in bed complaining of pain in his right leg, toes, and groin. The doctor ascertained that the patient had been giving himself the daily injections of eight units of insulin and that he was keeping within a prescribed diet. Examination showed the toes and foot to be swollen and on the dorsum of the second toe of the right foot thick, yellow pus was exuding from an opening in the skin. X-rays were taken and said report showed that the bones of the foot and toes were normal but that the patient was suffering from a soft tissue infiltration. The doctor advised the patient to remain in bed, continue with the insulin, keep to his diet, and avoid all exercise. He saw the man a day later and his pains had increased. The ulceration had not improved and the doctor advised hospitalization and gave him a note for the purpose of entering the hospital. He increased the insulin from eight to ten units daily and advised the patient that if he did not go to the hospital, to purchase a heat lamp, and gave the man instructions as to the manner of using such lamp.

The last time the doctor heard of the case was when the patient visited him at his office the following week. Again examination showed the condition to be no better and the patient was advised to go to a hospital, which the patient promised to do. The doctor never saw the patient thereafter.

It was later found out that within two days from the time the doctor last saw the patient he entered a hospital with a diagnosis on admission of diabetic gangrene of the right foot. A large gangrenous ulcer on the dorsum of the foot was treated and after a considerable period of time the patient's leg was amputated at the mid thigh.

A malpractice action was instituted against the physician charging him with having negligently treated the case and also charging that he was responsible for the fact that the plaintiff's leg was eventually amputated.

The case came on for trial before a judge and jury and at the conclusion of the testimony of the plaintiff's witnesses, the case was dismissed on motion of counsel for the defendant, upon the grounds that the plaintiff had failed to establish a *prima facie* case of malpractice against the defendant.

The American Congress of Physical Therapy will hold its sixteenth annual session in Cincinnati, Ohio, on September 20 to 24.

America does not want a medical system run by non-medical people who could not tell the difference between an X-ray and an electrocardiogram.—*New York Sun*

Across the Desk

Revolt of the Guinea Pigs

WISCONSIN PEOPLE HAVE DECIDED that they do not care to act as guinea pigs to test the workings of compulsory sickness insurance. On June 17 the Wisconsin Assembly, by the thumping majority of sixty-three to twenty-seven, voted down the Biemiller bill that would have saddled socialized medicine upon the state. The feeling went around that the plan would make the people play the role of mice, guinea pigs, or rabbits in a socialistic medical experiment backed by big foundations, and they revolted. The accompanying cartoon, from a leading Wisconsin newspaper, shows how they felt.

The alarm, in fact, spread to neighboring states, Milwaukee papers reported that the group of seven Biemiller Medical bills before the Wisconsin legislature would next be introduced in the Minnesota legislature, and *Minnesota Medicine*, organ of the state medical society, printed a warning editorial headed, "Are we to Serve as Guinea Pigs?" Minnesota is safe from such attacks, in the opinion of its state medical journal, but if Wisconsin had yielded, there can be little doubt that the powers behind the movement would have gone on to try their wiles on any state that was handy, and we may be certain that next winter will see the battles renewed at many state capitals.

Let the Weak-kneed Cheer up

Weak-kneed people in the profession who have been saying, "Oh, socialized medicine is bound to come," might do well to take a look at what went on at Wisconsin's capital. Most of the speakers at the hearings on the group of bills favored them. A clergyman from northwest Wisconsin devoted part of his remarks to vituperative attacks upon the medical profession. Almost the only opponent of the bills before the committee was George Crownhart, executive secretary of the State Medical Society, yet the committee voted four to two against the bill for socialized medicine, and it went down to disaster, as noted above, in the vote in the Assembly.

Wisconsin is considered a liberal, if not a radical, state, but it has no intention of being the guinea pig for the socialized medicine experiment. One of the members of the committee was a physician, Dr. Joseph L. Barber, and in the course of one of the hearings he interrupted an advocate of the bills and said "You know in your own heart this is merely communism all the way through, and why should you come into the Wisconsin Legislature with such junk as this?" The lawmakers evidently agreed with him.

A Lopsided Scheme

The scheme was to apply compulsory sickness insurance to all employed persons earning \$60 a week or less. It was fathered by the labor unions, and the executive secretary of the State Medical Society very ably drove home the point that it would provide medical care for only about half the state's population, but that if it ran up a deficit, as he figured likely, the other half would have to foot the bill. Many members were deluged with letters and telegrams urging them to vote such a lopsided scheme down. One rural member exclaimed "So the farmers are to be left out in the cold in order that labor may secure the benefits!"

The legislature even failed to vote on a bill calling for an interim committee to study the costs of medical care, and it died when the lawmakers adjourned. The general view was well summed up by Assemblyman Cavanaugh, who pointed to the high service rendered the people of the State by the family physicians.

"I speak on this subject out of my personal experience," declared Mr. Cavanaugh, "our family for years has had such a family physician. The people of Wisconsin do not need this bill. It is a proposal based only on theory. As far as the people are concerned, as I know them, I know that the old way is better because of the fact that they are well taken care of medically by those who know them and

who cherish the family relationship. There is no one who needs medical protection. If we have this system it will provide nothing but a further burden on the taxpayers of this State."

A.M.A. Journal notes, fall into three classes (1) to force governmental and tax-exempt hospitals to permit all practitioners of the healing art, no matter whether they are physicians or practitioners



From the *Milwaukee Journal*
Guinea Pigs for a New Experiment?

A Nationwide Battle

The battle, indeed, has been raging all over the country in the state legislatures to pass needed medical laws and to fight off legislation damaging to the health and welfare of the public. The cult practitioners particularly are tireless in efforts to secure legislation to benefit their selfish interests. The cult proposals, as the

of bizarre cults, to practice within their confines, (2) to authorize osteopaths, chiropractors, naturopaths and other sub-standard practitioners to care for, at the employers' expense, workmen injured in the course of their employment, and (3) to force public officials, charged with the duty of furnishing medical care to indigents and other persons on relief rolls or un-

Across the Desk

Revolt of the Guinea Pigs

WISCONSIN PEOPLE HAVE DECIDED that they do not care to act as guinea pigs to test the workings of compulsory sickness insurance. On June 17 the Wisconsin Assembly, by the thumping majority of sixty-three to twenty-seven, voted down the Biemiller bill that would have saddled socialized medicine upon the state. The feeling went around that the plan would make the people play the role of mice, guinea pigs, or rabbits in a socialistic medical experiment backed by big foundations, and they revolted. The accompanying cartoon, from a leading Wisconsin newspaper, shows how they felt.

The alarm, in fact, spread to neighboring states, Milwaukee papers reported that the group of seven Biemiller Medical bills before the Wisconsin legislature would next be introduced in the Minnesota legislature, and *Minnesota Medicine*, organ of the state medical society, printed a warning editorial headed, "Are we to Serve as Guinea Pigs?" Minnesota is safe from such attacks, in the opinion of its state medical journal, but if Wisconsin had yielded, there can be little doubt that the powers behind the movement would have gone on to try their wiles on any state that was handy, and we may be certain that next winter will see the battles renewed at many state capitals.

Let the Weak-kneed Cheer up

Weak-kneed people in the profession who have been saying, "Oh, socialized medicine is bound to come," might do well to take a look at what went on at Wisconsin's capital. Most of the speakers at the hearings on the group of bills favored them. A clergyman from northwest Wisconsin devoted part of his remarks to vituperative attacks upon the medical profession. Almost the only opponent of the bills before the committee was George Crownhart, executive secretary of the State Medical Society, yet the committee voted four to two against the bill for socialized medicine, and it went down to disaster, as noted above, in the vote in the Assembly.

Wisconsin is considered a liberal, if not a radical, state, but it has no intention of being the guinea pig for the socialized medicine experiment. One of the members of the committee was a physician, Dr. Joseph L. Barber, and in the course of one of the hearings he interrupted an advocate of the bills and said "You know in your own heart this is merely communism all the way through, and why should you come into the Wisconsin Legislature with such junk as this?" The lawmakers evidently agreed with him.

A Lopsided Scheme

The scheme was to apply compulsory sickness insurance to all employed persons earning \$60 a week or less. It was fathered by the labor unions, and the executive secretary of the State Medical Society very ably drove home the point that it would provide medical care for only about half the state's population, but that if it ran up a deficit, as he figured likely, the other half would have to foot the bill. Many members were deluged with letters and telegrams urging them to vote such a lopsided scheme down. One rural member exclaimed "So the farmers are to be left out in the cold in order that labor may secure the benefits!"

The legislature even failed to vote on a bill calling for an interim committee to study the costs of medical care, and it died when the lawmakers adjourned. The general view was well summed up by Assemblyman Cavanaugh, who pointed to the high service rendered the people of the State by the family physicians.

"I speak on this subject out of my personal experience," declared Mr. Cavanaugh, "our family for years has had such a family physician. The people of Wisconsin do not need this bill. It is a proposal based only on theory. As far as the people are concerned, as I know them, I know that the old way is better because of the fact that they are well taken care of medically by those who know them and

must know." It then listed the bills favored by the Medical Society and gave the name and post office address of every member of the State Senate and House, and said, "You are urged to study the entire legislative program and make known your wishes to as many Senators and Representatives as you know—through personal interviews if possible, or by letters and telegrams. Please do it now. We have been told by some legislators that the reason we do not get more laws for the benefit of all the people, including doctors, nurses, and hospitals, is because they (the legislators) do not know what their doctors want."

As a result, five important bills favored by the Medical Association were passed and four bills opposed by the Association were defeated.

The Secretary-Treasurer of the Medical Association of Georgia, Dr. Edgar D. Shanks, who sends us this information, says in his letter "We are copying after your state in the matter of public relations," and we find among the recommendations of the

Committee on Public Policy and Legislation the following:

Chiropractic is the science of locating and removing any interference with the transmission of nerve energy. A license granted under the provisions of this Act shall not entitle a licensee to use drugs, surgery, osteopathy, obstetrics, dentistry, optometry nor chiropody.

Nor is that all. "Finally," we read, "our committee recommends that each component county medical society in the state sponsor a candidate for a legislative post, preferably one of its own members." If successful, this move forshadowes an ideal state where the laws will be made by a legislature made up solidly of the men of medicine. State after state, and state after state, will perhaps fall in line, the Congress will follow suit, and all our political ills, infections and disorders will have a thorough going treatment by the men who know how to diagnose what is wrong and put it right. The M.D.'s are only just beginning to get their hands in on this political game, and it may not be long now before the old-line politicians will be sorry they attracted the doctor's attention.

AN EVASION RACKET IN CALIFORNIA

Courts have decreed that corporations cannot practice medicine or contract to supply medical service. This ruling has terminated attempts on the part of certain compensation insurance companies from openly employing medical men on a monthly salary basis to render medical care to the employees of firms covered by their insurance coverage.

Reports now are on hand that these certain insurance companies have resorted to a new undercover form of law evasion says *California and Western Medicine*. This evasion is operated in the following manner: The company engages usually a young surgeon on a monthly salary basis. Instructions are given him to rent ample quarters, engage nurses, a stenographer to make out records and reports, purchase physiotherapy equipment, etc. Firms covered by this company are instructed to send injured employees to this hired agent surgeon. The surgeon is instructed to bill the company on the first of the month for all services rendered at compensation fee schedule rates. By the fifth or the tenth the surgeon receives

a check but he is instructed not to cash this check. In a day or so a company representative calls and picks up this check. He gives the surgeon cash or draft to pay rent, monthly pay roll and office overhead and surgeon's monthly salary. This later transaction is, of course, under cover and the surgeon can claim he is doing compensation work under fixed approved fee rates.

The scheme is illegal, evasion of laws, contract practice and insurance company corporate practice. The surgeon makes himself liable to revocation of his license and the insurance company to illegal corporate practice penalties.

The matter has been called to the attention of the Compensation Commission, the Insurance Department and the Board of Medical Examiners. Steps will be taken to end this racket. Members are requested to send in information that they may have so that it may be turned over to investigators. Such reports will be held in confidence and the informant will not become involved. Members should aid in terminating this corporate racket.

able to pay for such services, to permit cultists to treat such persons at public expense

Some Crumbs for the Cultists

Despite the most strenuous efforts, the cultists have had very little success. A bill to license chiropractors passed the Delaware legislature and was signed by the Governor. There are said to be about thirty chiropractors in Delaware. The Governor said in an explanatory letter to the editor of the *Delaware State Medical Journal* "Without going into the merits of this profession, its practice has been in effect so long that the public has recognized it and many people believe in it and have assured me that they or some of their families have been benefitted by this treatment.

"Both bodies of the Legislature believed that the profession should be recognized and the public safeguarded from inefficient and improperly trained practitioners. Members of the General Assembly personally solicited me to sign this bill, having received treatment from various members of the profession.

"We should all realize that chiropractors are with us to continue their profession indefinitely, therefore, believing it the best thing to do I approved the bill which calls for a Board of Examiners."

Section 8 of the act however makes these restrictions

That the Medical Association of Georgia establish at the office of the Association in Atlanta a Public Relations Bureau similar to that now operated by the Medical Society of the State of New York

The Public Relations Bureau of the Medical Society of the State of New York states "The public needs to be told what are their questions, and they must be told the answers, and, finally, they must be persuaded to act in accordance with the answers." Such a Bureau prepares informative and persuasive medical material for publication in the weekly newspapers, and furnishes confidential information to each member of the State Medical Association as the need arises. In Georgia there are 225 weekly newspapers

Another reverse was experienced in Kansas, where a Basic Science Law was passed, but was unfortunately so amended that it exempts osteopaths, chiropractors, and all other practitioners who are now regulated

by their state board examiners "Yet the battle was not in vain," declares the *Journal of the Kansas Medical Society*, for "several other branches of the healing arts do not have state board examiners, therefore their representatives who meet the requirements of this law may gracefully present themselves to the public with their qualifications"

Basic Science Laws Passed

In Michigan, President Henry E. Perry of the State Medical Society transferred his residence to Lansing for five months to help the passage of the Basic Science Law and to keep destructive proposals off the statute books, and was rewarded with success in both efforts. In his message of congratulation to the State Society, he remarks especially that "praise and gratitude are forthcoming to family physicians of legislators," who "labored valiantly" in behalf of the Basic Science Bill.

"Three rousing cheers" are called for by *Colorado Medicine* to celebrate the legislative victory there. "After eight years of increasing effort," it says, "a Basic Science Law has been passed by the General Assembly of the State of Colorado, and a legislative season has closed without passage of a single medical or public health law opposed by this organization!" The one fly in the ointment is an amendment to the Basic Science Law which recognizes medical cults to the extent of including one Doctor of Osteopathy and one Doctor of Chiropractic on the five-man Basic Science Board. But the principle of the law is preserved. All who practice the healing art, under any name, must demonstrate their knowledge of the basic sciences. And, we are told, "this is certain none of the bizarre new healing cults which seem to be gaining recognition in some states will ever get so much as a toe-hold in Colorado so long as this Basic Science Law is on the statute books." It is certainly a fine showing, and we may consider the three rousing cheers as given.

Georgia's Noteworthy Plan

A plan worth noticing was operated by the Medical Association of Georgia. In February, its *Journal* carried a pink supplement headed "Write your legislators today. They

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MATERNAL MORTALITY IN ERIE COUNTY, N Y

Report of a Survey by the Maternal Mortality Survey Committee of the
Erie County Medical Society

MARVIN ISRAEL, M D, *Buffalo*, Chairman

Introduction

On April 16, 1934 the Medical Society of the County of Erie adopted a resolution to conduct a survey of maternal mortality in Erie County and to institute the necessary measures to make child bearing relatively safe. In accordance with this resolution Dr James Borrell, president of the Society, appointed a Steering Committee of eleven members and a chairman with the power to consult advisory groups both lay and medical as indicated.

The following were the committees

Steering Committee

Marvin Israel M D, Chairman
Francis E Fronczak, M D Frank H Long M D
Iran Hekimian, M D Lewis F McLean, M D
Allen A. Jones M D Alfred H Noehren, M D
William H Jones, M D W Ward Plummer, M D
Edward W Koch, M D Margaret Warwick, M D
Leon J Leahy M D

Obstetrical Study Group

Edward Forrester, M D Irving Potter M D
William Getman, M D * Louis Siegel M D
Edith Hatch M D Harry LaForge M D.,
Investigator
Francis Goldsborough M D Chairman
* Died February 20 1936

The Chairman wishes at this time to extend thanks on behalf of the Society to all committees for their sincere and interested services. Dr Fronczak kindly placed at our disposal the services of Mr Delmer Bacheller at that time Health Department Statistician. To Mr Batcheller we extend an especial note of appreciation for the many hours of unstinting and

Sub-Committee on Obstetrical Nursing

Stella Ackley, R.N. Marietta Hurlburt, F
Ruth Clitty R.N. Thelma Kenyon R.N.
Mrs Anne L Hansen R.N., Chairman

Study Group on Nursing Standards

Thelma Kenyon R.N. Ruth Clitty, R.N.
Tessa M Klein, R.N. Mildred Gent, R.N.
Florence Manley, R.N. Flora Giebner, R.N.
Heleen Hinckley, R.N.

Various types of assistance were received from the following groups Hospitals Child Health Week Committee The Buffalo Foundation The Buffalo Tuberculosis Association Buffalo Health Department, New York State Department of Health, The Connors Foundation

Report

The necessity for the survey was demonstrated by the following

- A The maternal death rate for Buffalo in 1932 was more than double that of Rochester, New York, and 15.5 higher than that of New York City (Chart I and Table I)
- B The 55th Annual Report of the Department of Health, State of New York states on Page XLIX—5th Paragraph "Among the cities of over 50,000 population Buffalo had the highest rate (68.0) "

The objectives formulated at the time were

valuable service often given until late at night in the compilation and statistical interpretation of our data. Also our thanks are due to Dr Archibald Dean District Health Director of the New York State Department of Health for his valuable cooperation. Miss Kerr of the Buffalo Foundation gave much helpful advice on the organization of the Survey.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

An Introduction to Medical Science By William Boyd, M.D. Octavo of 307 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$3.50

This Volume of three hundred pages is concise, accurate, well written, and contains much information. The author starts from fundamental facts and develops them logically into the organs and functions of the human body. Part I deals with the nature and causes of disease, inflammation, immunity, allergy, bacterial infections, animal parasites and tumors. Part II deals with the systems of the body and their diseases. This is a good, brief, reference book written not only for students but also for nurses.

HENRY M. MOSES

A Manual of Pharmacology By the late Walter E. Dixon, M.D. Revised by W. A. M. Smart, M.B. Eighth edition. Octavo of 483 pages, illustrated. Baltimore, William Wood & Company, 1936 Cloth, \$6.50

As a fitting tribute to the late author, W. E. Dixon, this new eighth edition of his manual appears. A complete recast of the previous edition has brought the book thoroughly up to date and in line with current trends and thought in the field of pharmacology.

This edition places more emphasis upon a knowledge of organic chemistry which is coming to play an increasingly important role in pharmacological research. The generous supply of structural formulas and relationships, and the liberal insertion of prescriptions add to the practical value of the book for the research pharmacologist and young physician. A further highly commendable feature is the number of valuable tracings, most of which have been retained from the previous edition.

However, it lacks completeness of discussion and detail which is generally desired in a textbook for medical students, the section on the endocrines being particularly inadequate. A bibliography would be a welcome addition. The greatest value of the manual is in its use as a convenient reference book for the practising physician or research pharmacologist. The material is concise, accurate and up to date.

J. RAYMOND JOHNSON

The Operations of Surgery By R. P. Rowlands, F.R.C.S. & Philip Turner, F.R.C.S. Eighth edition, Volume II, The Abdomen. Quarto of 998 pages, illustrated. Baltimore, William Wood & Company, 1937 Cloth, \$10.00

This second volume of the eighth edition of this work is devoted to surgery of the abdomen.

It is seldom that a book has as much valuable information unclouded by non-essential descriptions and obsolete material. The illustrations are all to the point and do not suffer from unnecessary diagrammatization. The anatomical surveys preceding each operation are to the point and most adequate.

The highest praise the reviewer can give this book is the advice to every surgeon to have it within reach on his desk.

GEORGE WEBB

The Diseases of Infants and Children By J. P. Crozer Griffith, M.D. and A. Graeme Mitchell, M.D. Second edition, revised and reset. Octavo of 1154 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937 Cloth, \$10.00

As a textbook and general reference book in studying diseases of infants and children, this 1937 edition probably cannot be surpassed. Already becoming a very popular volume, the authors have brought in certain innovations to enhance its value. For instance, putting in smaller type certain topics and explanations of interest only to the teacher and student, and emphasizing salient points by means of italics, are immense aids to the reader. Another improvement is the listing of references at the end of chapters instead of having each page cluttered with material more or less useless to the majority of readers.

Illustrations are plentiful and the addition of colored plates not only beautify but make the text more instructive.

Especially well handled is Section III dealing with general nutritional, metabolic and miscellaneous diseases. Under this heading such diseases and conditions as rickets, allergy, the rheumatic state, acidosis and alkalosis, diabetes, the common poisons, etc., are briefly yet eruditely presented.

THURMAN B. GIVAN

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St., N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

Health furnished copies of the death certificates for county deaths. For each death the special investigator filled out Revised Form C B-122 of the U. S. Children's Bureau-U. S. Department of Labor, getting his information from physicians and records. This information was utilized by the Obstetrical Study Group in its study of the classification of maternal deaths.

A Subcommittee on Nursing Standards was also appointed which, through questionnaires submitted to each hospital accumulated data from which this subcommittee drew its special report on Obstetrical Nursing in this community.

Cooperative activities were also inaugurated. Recognized previous surveys and students of the subject had stressed certain objectives as of paramount importance. Among these objectives was the education of the Public. Existing surveys indicated that the chief dangers to mothers' lives involving the responsibility of the public came from the following:

- (a) Failure of the patient to cooperate with her physician during pregnancy
- (b) Failure of the patient to obtain prenatal care or to realize its importance or to understand what constitutes a minimum standard of prenatal care.
- (c) Danger to mother's life from abortions (at least one-fourth of all maternal deaths in previous surveys were found to be due to abortions)
- (d) Demanding painless childbirth at unwarranted risks

In view of these findings, the Committee recommended that the Society enter into a public education campaign in cooperation with the Buffalo Child Health Week Committee. Through leaflets, exhibits, public speakers, and radio broadcasts the public has been informed on these points.

The hospitals have sent to the Committee yearly reports of their obstetrical data which have been compiled as rapidly as they have been received.

Supplemental birth information was considered a necessity because previous Maternal Mortality Surveys lacked a study of delivery methods in cases where the mother survived. The Committee deemed this study essential to its survey.

Therefore, in cooperation with the Department of Health of Buffalo, the following form was decided upon:

DIVISION OF VITAL STATISTICS,
DEPARTMENT OF HEALTH
Buffalo, New York

Supplementary Information for Birth Certificate

Name _____ Registration No. _____

Date of Birth _____

Character of Delivery as follows Check ()

NORMAL (Spontaneous)
OPERATIVE

Forceps _____ Low _____ Version _____
Mid _____ Caesarian _____
High _____ Breech _____
Other Operative (Specify) _____

This supplemental birth sheet was circulated to each physician doing obstetrical work and to the hospitals. Since July 23, 1936, this information has been printed on the Birth Certificate, across one end as can be seen in Chart II.

Based upon the information thus obtained, the Committee submits herewith tables covering the period from June 1, 1935 to August 31, 1936 inclusive, covering 12,747 births, together with a statistical analysis thereof (Tables II-VI). A translation of these figures into conclusions with recommendations justifies their compilation.

The Relation of Obstetrical Procedures to Puerperal and Neonatal Mortality is set forth in the following statistical analysis by Mr. Delmer E. Batcheller, formerly Registrar of Vital Statistics of Buffalo.

On June 1, 1935, the Division of Vital Statistics of the Buffalo Department of Health, at the request and with the cooperation of the Medical Society of the County of Erie, began collecting data on the delivery methods employed by physicians in that city. A mimeographed form was sent to each attendant at a birth delivered in the home, requesting him to check the method employed, to the various hospitals, lists of all births reported were mailed monthly to secure the same information.

The response was immediate and gratifying. During the fifteen month period between the date of the beginning of the study and August 31, 1936, there were registered in the city 12,339 live-births and 408 still-births, of these 12,747 births, delivery reports were received on 11,780, or 92.4 per cent. As was perhaps to be expected, the returns from the hospitals

section, 31, is unusually high or low, it would be necessary to have a complete case study of a large number of unselected births, to determine the proportions of cases in which the indications for such an operation occur in a random sample of pregnant women. On the basis of the data here presented, this proportion seems high, but such an opinion cannot be categorically expressed without much further study.

Puerperal Mortality

Table III shows the puerperal mortality during the fifteen month period. To obtain these data, the death certificates of all women of child bearing age reported to the Division during the period were checked against the recorded birth certificates registered during the two months preceding the death, certificates recorded as caused by criminal abortion are also included, although these are classified as homicides. Since there were no maternal deaths following deliveries reported as "High Forceps," or "Others," these are omitted from the table. Two of the deaths in the column "Not Known," followed deliveries occurring before the study began.

This table also includes the Standard Errors of the rates for total deaths by each method, these are included to indicate how much reliance may be placed on these calculated rates. To obtain these standard errors, two assumptions have been made, the validity of which may be questioned,

1 That the deaths in these samples follow the binomial law of distribution.

2 That each group is homogeneous, and consequently follows the law of simple sampling. It is believed, however, that the Standard Errors derived in accordance with these assumptions, are conservative statements of the variance of these rates. If, as seems possible, these distributions follow the Poisson rather than the binomial law, the standard errors as stated represent a maximum.

The ratio of the rate to its Standard Error is a measure of the reliability of the former. The probability is about ninety-eight in one hundred that another similar sample will give a rate within twice the Standard Error of the rate as determined from the data at hand, hence, if this ratio of the rate to its Standard Error is less two, the rate must be regarded as unreliable. According to this criterion, the puerperal mortality rate following forceps deliveries and breech presentations are not to be construed as representative rates.

In order to compare the various rates with each other, Table IV is presented, showing the so-called "Critical Ratios" of these differences, that is the ratios of these differences to their

Standard Errors. In constructing this table, the same assumptions are made as were used in computing the Standard Errors of the various rates. In presenting this table, midforceps deliveries and breech presentations are not included, because of the unreliability of the original rates. The criterion for judging these critical ratios is the same as that for interpreting the reliabilities of the original rates.

From Tables III-IV the following conclusions may be drawn

1 There are definitely more puerperal deaths, both absolutely and relatively, in hospitals than at home. This is undoubtedly largely accounted for by the fact that serious cases are taken to hospitals for emergency care.

2 Death rates following major operative technics (version and cesarean section) are definitely higher than those following normal and low forceps deliveries, also, the rates following cesarean sections are definitely higher than those following versions.

3 From the data given no categorical statement can be made that major operative procedures are causes of higher puerperal mortality rates, it can definitely be stated, however, that the two are highly correlated, that greater chance for the mother's death is associated with greater use of such technics. The real cause of such deaths may be the procedure used, on the other hand, it is equally likely that the complicating conditions which lead to the use of such measures would have caused death in any event. It is probable that the use of these methods has prevented many deaths.

The presence of this high degree of correlation between major operative technics and a high maternal mortality rate complicates rather than simplifies the procedure. In order adequately to determine the relation of such obstetrical methods to the death rate, a statistical study of complicating factors in a large number of unselected cases should be made. Only after such a controlled study, eliminating the effect of such factors, can definite conclusions regarding the importance of such technics as causes of death, per cent, be judged.

In connection with this question of primacy of delivery methods as causes of death, it is noteworthy that the scheme of classification of death certificates of puerperal deaths given in the Manual of Joint Causes of Death, the official standard of the Census Bureau, gives precedence to the complicating condition for which the operative technic was used, rather than to the operation itself.

4 A large proportion, twenty-four per cent in this sample, of puerperal deaths are due to abortions and ectopic pregnancies. The inclusion of these deaths, while properly ascribed to conditions of pregnancy, in the maternal death rate is based on the number of

were more complete than those from attendants at home deliveries. Of the 9,278 hospital deliveries, data were obtained on 9,061, or 97.7 per cent, of the 3,369 home deliveries, reports were received on 2,719, or 78.4 per cent.

Methods of delivery

Table II shows the distribution of these deliveries according to place of delivery and method used.

From this table the following facts are observed:

1 22.1 per cent of all deliveries, or two of every nine are instrumental.

2 10.3 per cent, or slightly more than one tenth, are by major operative procedure.

3 7.2 per cent, or one in fourteen deliveries, are by version and extraction.

TABLE IV—PUERPERAL MORTALITY RELIABILITIES OF DIFFERENCES IN RATES RELIABILITIES EXPRESSED AS RATIO OF SUCH DIFFERENCES TO THEIR STANDARD RATES

	Normal Spontaneous	Low Forceps	Version
Low Forceps	0.79		
Version	2.30	3.08	
Cesarean	5.53	5.59	4.53

Reliabilities not computed for mid and high forceps deliveries and for breech presentations on account of unreliabilities of rates.

4 3.1 per cent, or one in every thirty three deliveries, are by cesarean section.

5 Significantly more of the instrumental and operative deliveries occur in the hospitals of the city than at home. The lone exception to this rule is in the case of the high forceps deliveries, where the slight difference is not statistically significant. The number of cases of this type of delivery is relatively so small, however (six per thousand births) that this method does not appear as a major problem. The figures seem to indicate that it is only used in Buffalo as an emergency procedure, and that the number of such emergency uses is relatively constant in home and hospital practice.

6 There is no difference between the relative numbers of breech and other faulty presentations found in home and hospital practice. The slight differences appearing are not significant, should these proportions remain constant for a much larger number of cases, the differences would, however, become real.

7 The numbers and percentages of this table are for the delivery methods only. For all variations from the normal there are undoubtedly good and sufficient reasons, (at least in the opinion of those attending the delivery. What these reasons may be we have no means of knowing.) To determine, for example, whether the per cent of deliveries by cesarean

TABLE V—STILL-BIRTHS AND NEONATAL DEATHS (UNDER ONE MONTH)—BUFFALO, JUNE 1, 1935, TO AUGUST 31, 1936, INCLUSIVE, CLASSIFIED ACCORDING TO METHODS OF DELIVERY. NEONATAL DEATH RATES PER 1,000 LIVE BIRTHS

	Total	Normal Spontaneous	Forceps			Version	Cesarean	Breech	Other	Not known
			Low	Mid	High					
Still-Births Home	102	45	1	2	2	7		10	2	33
Hospitals	306	119	31	11	8	44	18	33	8	34
Total	408	164	32	13	10	51	18	43	10	67
Neonatal Deaths Home	86	57	5	1		3		6		14
Rate	25.8	25.6	28.9	N.C.		30.0		N.C.		
Hospital	278	110	39	13	7	36	25	26	13	9
Rate	31.0	23.1	18.4	31.8	N.C.	47.0	65.9	120.7	N.C.	
Total	364	167	44	14	7	39	25	32	13	23
Rate	29.5	23.9	19.2	29.2	104.5	45.0	65.6	118.1	128.77	
Standard Error of Rate		1.83	2.87	7.7	37.37	7.05	12.69	19.6	33.3	
Ratio Rate to Standard Errors		13.1	6.7	3.8	2.8	6.4	5.2	6.0	3.8	

N.C. Rates not computed since number of births was too small (less than 100)

CHART II

Form VS 30b 7-23 36-25,000 (17 805)

FOR SPECIAL STUDY IN BUFFALO Check (x) Character of Delivery

Normal _____ Forceps Low _____ Mid _____ High _____

Version _____ Caesarian _____ Breech _____ Other, (specify) _____

Weight at birth _____ lbs _____ oz.

WRITE PLAINLY, WITH DURABLE BLACK INK—THIS IS A PERMANENT RECORD

N.B.—In case of more than one child at a birth, a SEPARATE RETURN must be made for each, and the number of each, in order of birth, stated. For further instructions, see reverse side of this form.

1. PLA	2. Fm	3. Ca	4. Color	5. Birth	6. Color	7. Birth	8. Color	9. Birth	10. Color	11. Birth	12. Color	13. Birth	14. Color	15. Birth	16. Color	17. Birth	18. Color	19. Birth	20. Color	21. Birth	22. Color	23. Birth	24. Color	25. Birth	26. Color	27. Birth	28. Color	29. Birth	30. Color
--------	-------	-------	----------	----------	----------	----------	----------	----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

Conclusions

Puerperal and neonatal mortality are without doubt closely associated with variations in obstetrical techniques. In general, the major operative procedures are highly correlated with increases in these mortality rates. However, the statistical study of such methods is insufficient in and of itself to draw absolute conclusions. There is need for a similar analysis of complicating factors of pregnancy in a large unselected group in order to clarify the true meaning of the differences in rates for the various methods.

The Subcommittee on Obstetrical Nursing of which Mrs. Anne L. Hanson, R.N., was chairman, presented its first report in April 1936. This report was compiled from information obtained from questionnaires sent to hospitals taking obstetrical cases. The report follows:

The Subcommittee on Obstetrical Nursing had a number of meetings and sent out three questionnaires to each institution in Erie County where maternity patients are cared for, namely fourteen. A summary of the questionnaires presents a fairly good picture of the type or service rendered maternity patients in this area.

The answers to the questionnaire submitted allowed the Committee to make the following report:

Prenatal. Twelve institutions have Prenatal Clinics but only two have field nursing service, and one has a tie-up with the Visiting Nursing Association.

Only eight institutions state they give a complete physical examination to the patient and when abnormal conditions are found, seven state patient is referred to the general clinic. Other institutions refer the patient to doctor or hospital or for home treatment but do not state who cares for the home treatment.

Some institutions report the taking of a prenatal history and of these five state they do not require complete report if a private physician is in charge of the case.

Eleven out of the fourteen institutions take a routine blood test, and ten "smears."

It is apparent that building arrangements in the Maternity Departments are certainly up to the average, if not above the average of some other cities. All have nurseries where babies are segregated in a unit apart from the mother, and all have special "Delivery Rooms." Fifty per cent of the institutions unfortunately have no "Preparation Rooms" and only seventy-five per cent have "Labor Rooms." Another unfortunate condition is that not all have isolation rooms when necessary for mother and baby.

The maternity nurses have been given good equipment by the hospitals. In only two hospitals must the mother's equipment be "shared," all the other institutions have individual equipment for the mother. In these same two institutions the baby's equipment is "shared" and in other institutions the baby has individual equipment.

Only one institution reports a "cubicle system" and one institution reports the nursery located in another part of the institution than the "Obstetrical Unit." On the whole it appears, from answers to questionnaires, that the equipment for the babies is not on as high a scale as that for the mothers.

TABLE VI—NEONATAL MORTALITY RELIABILITIES IN DIFFERENCES OF RATE. SEE TABLE IV 'BREECH' AND 'OTHERS' COMBINED WITH GROUP ONE

	Normal Spontaneous	Low Forceps	Mid	High	Ver-	Cesar-
					tion	ean
Low Forceps	1 38					
Mid	0 67	1 22				
High	2 15	2 25	1 97			
Version	3 04	3 39	1 51	1 56		
Cesarean	3 25	3 57	2 45	0 99	1 42	
Breech and Others	5 66	5 89	4 87	0 33	4 06	2 51

Nursing personnel. The number of supervisors, graduates, and students on duty in the Maternity Department differs in every institution. The Committee feels that the greatest weakness of the whole service is in the uneven distribution of personnel. Some institutions have the same number of nurses on duty at night as in the daytime, but as a general rule the number caring for patients at night is less. A summary of the figures gives us the following:

In Delivery and Preparation Rooms

- 2 supervisors less than in daytime
- 4 graduates less than in daytime.
- 2 students less than in daytime

In Postpartum Care

- 4 supervisors less than in daytime
- 18 graduates less than in daytime
- 20 students less than in daytime

In the Nursery

- 1 supervisor less than in daytime.
- 10 graduates less than in daytime.
- 7 students less than in daytime.

(Two institutions report one more student on duty at night.)

It is interesting to note that eleven institutions provide special nursing staff for care of babies. The remainder made no reply to the question.

Ward helpers. The Committee desires to draw attention to the fact that a number of institutions report no "ward helpers." It is the be-

deliveries of the viable products of conception. The total number of pregnancies in the population considered is an unknown quantity. To get an adequate picture of the postabortion death rate, it would be necessary to know the total number of abortions, both spontaneous and induced. Without such information, it is impossible to determine whether or not abortion is more important as a cause of death than is child-birth. Very little research has been done in this field.

Neonatal Mortality

Table V presents the classification of stillbirths and neonatal deaths, i.e., deaths under one month of age, according to method and place of delivery. Rates are given for the latter, but were not computed for the former.

It is true that figures for stillbirths show significant differences in the rates for certain of the methods reported. To obtain a picture of this relation it is necessary to separate these births into two groups: those in which the fetus died before the onset of labor, and those where death occurred during labor. Such a separation reduces the figures presented to such an extent that the various rates obtained lack reliability. Moreover, a study of a small sample of still-birth certificates showed that in the larger proportion of these, death was reported as having occurred before labor began. The data for stillbirths are therefore presented to show that there may be some connection with methods of delivery, and also to give the correction for the figures in Table II whereby to compute the rates for the neonatal mortality.

The data for neonatal mortality are shown according to the same scheme as that used in presenting those for puerperal mortality. In computing the Standard Errors of these rates, the same assumptions are made as heretofore. It is noticeable that when considering these deaths, the rates in all cases are more than twice their Standard Errors, and hence may be considered significant.

In Table VI the reliabilities of the differences in the neonatal mortality rates are shown, calculated in the same manner as those of Table IV. For these comparisons the deliveries reported as "Breech" and as "Others" are combined, notwithstanding, that the individual rates are both highly significant. Since most of the "Others" are cases of various abnormal presentations, the problem presented by them is closely related to that of the breech cases.

A consideration of the data of Tables V and VI leads to the following conclusions:

1 The lowest neonatal mortality rates are

those delivered normally and by low forceps, the highest, as is perhaps to be expected, are the breech and other faulty presentations.

2 There is no significant difference in rates between normal and low or midforceps deliveries, moreover, normal and low forceps deliveries show significantly lower rates than any other methods, the rates following faulty presentations are significantly higher than any others excepting those following cesarean sections.

3 Neonatal mortality rates following version deliveries are significantly higher than those following normal and low forceps deliveries, those following cesarean sections are significantly higher than those following normal, or low or midforceps deliveries.

4 In general, major operative techniques lead to a significantly greater chance of immediate death to the offspring than do normal and simpler instrumental techniques, while the chances of survival of misplaced fetuses are the smallest of all.

5 According to the most recent figures, from forty to sixty per cent of the infant mortality (deaths during the first year of life) occurs during the first month. During the past quarter century there has been a marked reduction in the infant mortality rate, but the greater part of this reduction has occurred in the deaths after one month. The reduction in the neonatal mortality rate has been relatively much less.

The infant deaths may be conveniently classified under three general heads:

(a) *Postnatal environmental conditions* The greater part of these are caused by preventable diseases. The control of this factor, especially in the virtual elimination of certain communicable diseases, has been especially important in reducing the infant mortality rate.

(b) *Congenital conditions* These are chiefly congenital malformations and premature births, and the death of the child occurs during the first month of life. The control of these causes is much more involved than is either of the other groups.

(c) *Conditions of birth* These are essentially an obstetrical problem.

The deaths considered here are, in more than ninety per cent of the cases, due to congenital conditions or to conditions at birth. In so far as the latter is the primary condition, the facts presented in this study may shed light on the problem of neonatal mortality, for those deaths due primarily to congenital conditions, these variations in method may or may not be significant. Again, further research on the primary causes of these neonatal deaths is important, in order accurately to gauge the true import of such facts as those presented here.

nurse being the contact between the physician and his patient and working under his direction, reporting to him exclusively

(b) *Clinic care for the indigent* Patients may attend clinic who plan to be delivered in their home, if referred by private physician. Patients unable to employ private physician should be urged to report at the Antepartum Clinic in the hospital where they plan to be delivered.

This recommendation is made to discourage patients from "shopping around" at various clinics. The field nurse servicing the clinic patient follows the orders of the clinic physician, carries out instructions regarding time for return visit, and gives the usual lessons in maternity hygiene.

Special consideration should be given to the obstetrical clinic patient that her full needs may be met when she attends the clinic, to avoid overexertion which is considered injurious by obstetricians. For example, provision made for treatment of cardiacs, diabetics, syphilitics, etc., during antepartum clinic visit. (This would apply also to postnatal clinic, especially emphasizing need for mother and baby being cared for at same clinic.)

Delivery in home Together with expert medical care, every woman is entitled to efficient nursing service.

If private nurse is not employed, services are available through Public Health Associations. The nurse who is engaged for the delivery period is responsible under the direction of the physician for instructing patient and family in every detail for the labor period.

Institutions

Admission—Through Delivery Special ward for patients not in actual labor when admitted.

Patients in labor admitted to labor room until physician orders transfer to delivery room.

Personnel It is desirable that the nurse, who makes the first contact with the patient, continue through labor and delivery. It is suggested that the personnel of the Obstetrical Department be considered as a separate unit under a properly prepared supervisor.

It is recommended that through the period of labor, there be one nurse to each patient and that the delivery room be serviced with not less than three nurses, at least one of whom should be a graduate.

The Committee believes that it would not deter from efficiency and would help in distribution of personnel if stirrups could be available for use.

Student nurses should not be considered observers only, but be made familiar with the actual process of labor and delivery. They

should receive instructions from the obstetrician regarding their method of procedure in an emergency.

POSTPARTUM CARE

(a) Continuous observation of normal cases for one hour. Pulse recorded at least every fifteen minutes. Emphasis laid for symptoms of shock or hemorrhage.

(b) In routine care of mother there should be one nurse for every four to five patients during day, one nurse for every eight to ten patients during night.

POSTNATAL CARE

(a) Nursery for new born infants staffed by special nursery supervisor with sufficient assistance to carefully supervise and care for each infant and to encourage breast feeding.

(b) It is desirable that each infant have individual equipment.

(c) Provision must be made for isolation when necessary.

(d) Special provision must be made for premature infants.

(e) All persons working in the nursery (including maids) should wear surgical gown, cap, and mask (after proper instruction regarding mask).

(f) Routine for nurses must include medical asepsis.

(g) No visitors allowed in nursery. Visitors to mother limited to minimum both in number and length of stay.

EDUCATION

(a) All graduates and students should attend and benefit by morning conferences and bedside clinics.

(b) Since every graduate nurse is a potential teacher, graduates on floor of obstetrical department must be under obligation to avail themselves of every opportunity for advancement through local institutes or postgraduate courses.

(c) In addition to requirements laid down by the Department of Education for classroom teaching and demonstration, provision should be made for adequate teaching at the bedside for every student nurse.

(d) A school of nursing should utilize every opportunity for teaching the students all of the intricacies of obstetrical procedures in order that they may be better equipped to meet emergencies which may occur during their professional life.

(e) Instruction to mothers should extend over entire period and include (1) practical demonstrations in bathing the baby, use and preparation of baby's tray, type of layette, preparation and care of breast tray, expression of breast milk, (2) lesson in health habits.

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The average number of mothers and babies cared for by—

(a) Supervisors 6 to 45

(b) Graduates 4 to 10

(c) Students 4 to 13

This shows there must be a great deal of variance in the type of care and supervision given patients in the institutions.

In reply to the question regarding length of time in which the mother and baby have continuous observation after delivery the institutions show a great variance of time. Some stated twenty-four hours, some stated one hour, others twelve hours, and others ten hours.

Student case work The replies to the questionnaire show that the student nurses averaged twenty "Delivery" cases. Six institutions stated that it is observation only. Only one institution gives any experience in "home deliveries."

Instructions to patient Postpartum examination is given by twelve institutions out of fourteen and differs in the date after delivery from one to six weeks.

Instruction in hygiene Care of the baby with demonstrations is given by eleven institutions.

Only one institution makes routine home calls by field nurses after the patient returns home.

It is apparent that home visits by nurses to prenatal cases is not general, and it is the opinion of the Committee that this constitutes a definite lack of care of maternity cases. The institutions are not availing themselves of the regular public health service given by various public health nursing agencies, which would be invaluable first to the patient and, second, to the hospital.

The hospitals generally do not seem to have taken advantage of all their opportunities to educate and instruct the mothers while they are still patients on their floors, at a time when the patient is most receptive and less burdened by other responsibilities and cares. Perhaps more organized instructions should be incorporated into the general plan during the whole period of hospitalization.

Summary

This Subcommittee suggests that

1 The Erie County Medical Society Committee on Maternity bring together nurse representatives of all institutions giving maternity care, and also representatives of the public health nursing agencies giving any form of maternity care in order that there be a better understanding of the work of the groups. It is suggested that this be not limited to registered nurse training schools but to all groups where maternity service is being rendered.

2 (a) That if necessary, an Obstetrician arrange for definite instruction in the physician's requirements in maternity nursing. (b) That a well-qualified obstetrical nurse give instruction in the technic of maternity nursing.

3 The Committee suggests that the Chairman of the Survey Committee meet with the group and outline a simple plan for discussion which will include the best methods of securing for patients in the County of Erie efficient prenatal, delivery, postpartum, and postnatal care.

4 *Education* (a) *Student Nurses*—It is recommended that the faculty of the schools of nursing study the new curriculum on maternity nursing which has been compiled by the National League of Nursing Education. It seems certain that this curriculum will be finally approved by the three National Nursing Organizations at the Biennial convention at Los Angeles in June 1938, and become the basis for all schools of nursing that are of a high standing. Whether a school is registered or not, the Committee believes the new curriculum should be used as a basis for student nurse education. (b) The Committee further recommends that all graduates employed by hospitals be given well prepared postgraduate education in maternity service either through lectures or institutes from time to time so that the service may be kept up to date.

In accordance with the foregoing recommendation No 3, a meeting of the head obstetrical nurses of the various institutions doing obstetrical nursing was called. A subcommittee was appointed to draw up an outline of Minimum Standards for Obstetrical Nursing. This sub-committee's report follows.

Minimum Standards for Nursing in Complete Maternity Cycle

Antepartum Every expectant mother is entitled to both medical and nursing care throughout the antepartum period.

The first objective of all field nurses is to secure medical care as early as possible for every prenatal patient.

(a) *Private physician* Field nurse service is available for every private physician, the

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(e) Instruction to mothers should extend over entire period and include (1) practical demonstrations in bathing the baby, use and preparation of baby's tray, type of layette, preparation and care of breast tray, expression of breast milk, (2) lesson in health habits

HOME CARE

Before discharge, provision must be made for home care through (1) Outpatient department field service, (2) Affiliation with public health agency (service available for both private physicians' home cases and hospital)

FOLLOW-UP FIELD SERVICE

Objectives of nursing visits include (1) To encourage return of mother and baby to private physician or hospital clinic. (2) Observe mother and baby and report any apparent abnormal condition to doctor. (3) Teach and demonstrate good health habits and prevention of disease

The Obstetrical Study Group, of which Dr. Goldsborough acted as Chairman, submitted the results of its study in a series of charts (Tables VII-X, and from which Charts III-V have been prepared) prefaced by the following comment

Herewith is presented the detailed analysis of maternal deaths in Erie County in 1935. A short summary covering 1935 and 1936 is included. From the study we have confirmed our conclusions of 1935, foremost in importance is the serious nature of operative obstetrics, especially cesarean sections. Sections constituted three per cent of all deliveries in Erie County, which means that one-third of all the deaths occurred in three per cent of the deliveries.

Puerperal sepsis in both years constituted the largest single cause in all deliveries but was highest in cesarean sections. Infection, theoretically is preventable but practically it is not. However, constant vigil and care and improvement of technic should lead to its reduction.

As to the preventability of deaths the committee was unable to come to definite conclusions upon whom to place the responsibility. In many instances poor judgment in the choice of procedures used could be criticised.

In the deaths from toxemia all were due to lack of prenatal care.

The committee was handicapped seriously in its study because of the lack of postmortem examinations. Many of the deaths were under the control of the medical examiner and in practically every instance no autopsy was performed. Many cases in which questionable diagnoses were made could have been definitely diagnosed with the cooperation of the medical examiner. The committee urges the Erie County Medical Society to take a more definite stand on this point.

In many instances, after careful study and much discussion regarding the diagnosis and

TABLE VII—TWO YEAR SUMMARY 1935—1936

	1935	1936	Total
City patients	65*	61**	126
County patients (died in city)	10	8	18
Hospital deaths	63	57	120
Home deaths	2	4	6
METHODS OF DELIVERY			
1 Normal (Spontaneous)	7	11	18
2 Forceps	3	5	8
3 Version and extraction	5	10	15
4 Breech extraction	2	2	4
5 Sections	21	18	39
6 Abortions	16	8	24
7 Extrauterine pregnancy	7	5	12
8 Undelivered	4	1	5
9 Postmortem section		1	1

* Deaths in Erie County outside of Buffalo included.

** Not including 6 deaths in Erie County outside of Buffalo

TABLE VIII—CAUSES OF MATERNAL DEATHS
TWO YEAR SUMMARY 1935—1936

	1935	1936	Total
1 Puerperal sepsis	20	17	37
2 Hemorrhage	10	6	16
3 Toxemias of pregnancy	2	7	9
4 Surgical shock	3	10	13
5 Pulmonary embolus	2	5	7
6 Accidents of pregnancy	4	5	9
7 Abortions	16	6	22
8 Extrauterine	7	5	12
9 Postoperative pneumonia	1		1
Total			126

TABLE IX—1936

Hospital and Home Deaths		37
Hospital deaths		4
Home deaths		
City and county deaths		53
City patients		8
County patients (died in city)		
CLASSIFICATION OF MATERNAL DEATHS BY TYPE OF DELIVERY — 1936		
Cesarean section		18
High	13	
Low	2	
Perfor	3	
Normal (Spontaneous)		11
Version and extraction		10
Forceps		5
Breech extraction		2
Abortions	8	
Ectopic pregnancies	5	
Postmortem section	1	
Undelivered	1	

cause of death we were amazed to find distinctly incorrect causes of death upon the certificate. For instance, in one case, a patient dying from peritonitis had as a contributory cause "post-puerperal seven years." In investigating this case the physician explained that his patient had had an infected abortion seven years previous and her death was due to a lighting-up of the old infection. He had overlooked a long-standing complete prolapse as the most probable cause. This death certificate was accepted by the authorities. If the certificates continue to be filed without investigation we can see no particular use for

Department of Health records, as they do not represent the accurate state of affairs. Every certificate should be a privileged communication so that true statements will not lead to public exposure with the possibility of legal suit.

As a result of a study of all of the foregoing statistics, analyses, data and reports, the Maternal Mortality Survey Committee of the County of Erie has formulated certain conclusions and recommendations which are hereby submitted.

The tables "Types of Delivery and

TABLE X—CAUSES OF DEATH 1936

1 Hemorrhage		6	
Postpartum	6		
2 Abortions		5	6
Sepsis	1		
3 Puerperal sepsis		17	
Sections	10		
Version and extraction	3		
Normal (spontaneous)	4		
Hospitals	12		
Home	5		
4 Ectopic pregnancy		5	
5 Accidents of pregnancy		5	
6 Surgical shock		10	
Sections	4		
Version and extraction	4		
Forceps	1		
Undelivered	1		
7 Pulmonary embolus		5	
Sections	3		
Forceps	1		
Version and extraction	1		
8 Toxemia		7	
Eclampsia	4		
Chloroform poisoning	1		
Toxic vomiting	1		
Acute yellow atrophy	1		
Total		61	

TABLE XI—TYPES OF DELIVERY AND CAUSES OF MATERNAL DEATHS 1936

1 Cesarean Section		18	
Sepsis	10		
Surgical shock	4		
Pulmonary embolus	3		
Anesthetic death	1		
2 Normal (Spontaneous)		11	
Sepsis	4		
Postpartum hemorrhage	2		
Accidents of pregnancy	3		
Toxemia	2		
3 Version and extraction		10	
Sepsis	3		
Shock	4		
Embolus	1		
Postpartum hemorrhage	2		
4 Forceps		5	
Embolus	1		
Toxemia	1		
Postpartum hemorrhage	2		
Shock	1		
5 Breech extraction		2	
Toxemia			
6 Postmortem section		1	
Eclampsia			
7 Undelivered		1	
8 Abortions		8	
9 Ectopic pregnancy		5	
Total		61	

* Not including 8 deaths in Erie County outside of Buffalo

Causes of Maternal Deaths" for the calendar years 1935 and 1936 prepared by the Obstetrical Study Group (Tables VII-XI), tabulate 126 deaths as being unquestionably puerperal. If from this number are excluded deaths occurring after normal (spontaneous) deliveries, abortions, extrauterine pregnancies and undelivered cases, there remain sixty-six deaths which must be classified as following operative deliveries. Cesarean section preceded thirty-nine, or fifty-nine per cent, of these. In upstate New York in 1932, deaths following cesarean section comprised thirty-six per cent of all maternal deaths after operative procedures.

The statistical analysis of Tables II and III points out that, in general the chances of death are significantly greater when artificial technic are used than when deliveries are normal (spontaneous) or technics are simpler. The tables in this series show that the most common types of delivery are spontaneous, forceps, version, and cesarean section. Of these, spontaneous and forceps delivery show such a comparatively low mortality that they need not be considered as important in the production of our high maternal mortality rate.

The analysis clearly demonstrates that the most significant field of danger lies in delivery by (1) cesarean section (2) version and extraction. So a definite attack on our maternal mortality rate must logically begin by considering delivery by these procedures. The critical ratio for cesarean section compared to spontaneous delivery is 5.53* (Table IV).

In the Report of the New York Academy of Medicine, page 137, we read "the incidence of cesarian section in the hospitals of the city is seen to be high, 2.2% of all deliveries. This extremely high incidence in the series is a matter of concern."

In Erie County the hospital incidence

* "It has been practically a universal custom among biometric workers to say that a difference which is smaller than twice its probable error is probably not significant, whereas a difference which is three or more times its probable error is either 'certainly,' or at least 'almost certainly,' significant."—Page 214, "Introduction to Medical Biometry and Statistics" by Raymond Pearl, W. B. Saunders, 1923

CHART III—12,747 BIRTHS (LIVE AND STILL)
FROM JUNE 1935 TO AUGUST 1936, CLASSIFIED BY
METHOD OF DELIVERY (GIVEN BY PERCENTAGE)
(BUFFALO)

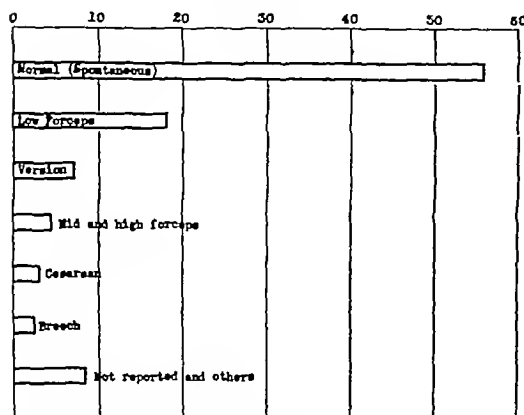


CHART IV—92 PUERPERAL DEATHS FROM JUNE
1935 TO AUGUST 1936 INCLUSIVE, CLASSIFIED BY
METHOD OF DELIVERY (GIVEN BY PERCENTAGE)
(BUFFALO)

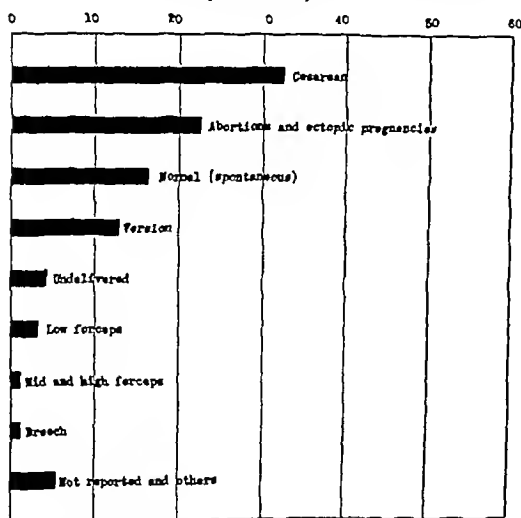
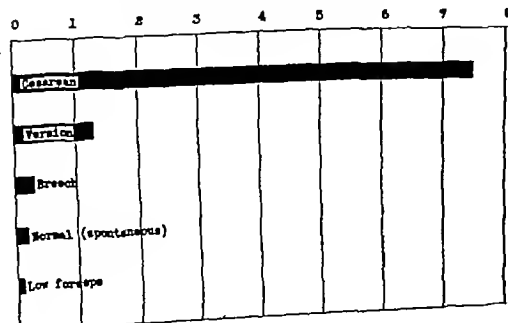


CHART V—FATALITY RATES FOR VARIOUS TYPES
OF DELIVERY BASED ON 12,747 BIRTHS (LIVE AND
STILL) FROM JUNE 1935 TO AUGUST 1936 INCLU-
SIVE (PUERPERAL DEATHS PER 100 BIRTHS—LIVE
AND STILL) (BUFFALO)



of cesarean section for the period of our study was 43 per cent, almost double that of New York City. Furthermore, 31 per cent of all deliveries in Erie County were by cesarean section, which is one in every thirty-three deliveries. The maternal mortality rate for spontaneous deliveries is 2%, while for cesarean section it is 7.5%.

Everyone recognizes, of course, that there are absolute indications calling for cesarean sections and in these instances it may be a life-saver. The operation, however, should be sharply limited to these indications because of the proven increased risk to the mother from this major surgical procedure.

The study so far, then, definitely demonstrates the need for re-examining the indications for cesarean section. Others have reached the same conclusion.

The Maternal Mortality study in fifteen states made by the United States Department of Labor contains this statement: "The tremendous mortality attending Cesarean sections throughout the United States warrants a careful review of the indications in the choice of operation."

Dr DeLee (*Year Book of Obstetrics and Gynecology*, page 265, 1934) states:

I must, however, warn against the growing misuse of a noble operation. The mortality from it in the United States is at least 6% which is frightful and something must be done about it.

Erie County rate was 7.5% for the period studied.

The New York Survey also states as a result of its studies, page 139:

The indications for the cesarean operation need restatement and further limitations to really valid causes, such as severe degrees of contraction of the pelvis. Sharp reduction in the cesarean sections performed is to be strongly recommended.

Dr Edwin G. Langrock in an article in this JOURNAL (36:383, 1936) says:

Cesarean section has a much higher mortality rate than we suppose even when the low cervical operation is done at the optimum time by the most skilled operator. It is evident that fewer cesarean sections should be performed, especially since far too many are being done for nonvalid indications.

Let us give patients solid conservative treatment. This is safe and satisfactory. Let us carry out intelligent, watchful expectancy in labor. Let us acquire experience and skill in vaginal delivery, and these two will give us the courage to treat our patients conservatively throughout labor and to deliver them through the natural passage.

We should disseminate to the laity through an extension of our public education program the fact that mechanized maternity is not synonymous with safety, that artificial procedures undertaken "merely to relieve pain or to shorten labor increase the risk to the mother," as has also been shown by all other surveys and studies to date.

The public's responsibility in this regard cannot be too greatly stressed, for all too often the physician is chosen by the prospective mother for his reputation for giving a "short" or "painless" delivery.

We must continue to stress our campaign for prenatal care until every prospective mother realizes not only what adequate prenatal care is, but also its importance to her health and safety.

As approximately twenty-five per cent of all maternal deaths follow abortions, it is strongly recommended that we continue and enlarge our campaign for public education against this dangerous procedure. We may best do this by continuing an active cooperation with the Child Health Week Committee, which, in cooperation with the County Society, has waged a spirited crusade against this evil. However, the committee recommends that it would be desirable in all studies of this kind to separate postpartum deaths from postabortion and extrauterine pregnancies. Until this is done, the figures are misleading and readily become the basis of misrepresentation in popularizations of the subject.

More postgraduate work in practical obstetrics should be made generally available by the County Society.

The committee also recommends a "sampling study" to be begun at once, on a series of several hundred consecutive births where the mother survives, using the revised form CB 122 United States Children's Bureau, Department of Labor, or an abridgment of it.

In order to carry out the recommendations that have been made in the foregoing section considerable organization of the available facilities will be necessary. Before presenting a plan for Erie County, a description of successful obstetric plans which have been developed in two other communities is presented at this point. The first, which appeared in the *NEW YORK STATE JOURNAL OF MEDICINE* in 1934, is a plan outlined for organized maternal welfare as developed in New Jersey.

ORGANIZED MATERNAL WELFARE WORK IN NEW JERSEY

ARTHUR W. BINGHAM, M.D.

Chairman, Maternal Welfare Committee, State Medical Society of New Jersey

Organized maternal welfare work in New Jersey was started in 1923 when the Medical Commission for Maternal Welfare of Essex County, consisting of twelve physicians, was appointed by the County Medical Society. Meetings were held each month at first but later every second month, the detail work being carried on by various committees, prenatal, hospital, educational, follow-up, statistical, and finance.

The prenatal committee organized prenatal work in every part of Essex County following largely the methods employed by the Maternity Center Association of New York City and the Maternity Center of the Oranges, which had been in operation for two years. Prenatal history cards were printed by the commission and distributed without cost to all physicians in the county who wished to use them.

The hospital committee checked up the work of the hospitals, inducing them to use similar record sheets so that the annual reports would be uniform. An obstetrical report is received each year by this committee from each of the leading hospitals in the county, a few small private hospitals not cooperating as yet. A summary of three years of these reports was published in the *American Journal of Obstetrics and Gynecology*. Directors of one hospital with sixty-six cesarean sections out of 900 deliveries and another hospital with forty-four sections out of 400 deliveries read these reports with the result that in 1933 there were only twenty-one sections in the former hospital and eleven in the latter.

The educational committee has attempted to present the idea of better obstetrics to the public as well as to the physicians. Many talks have been given by leading obstetricians and one year a drive for better obstetrics was conducted and an afternoon meeting for women was held.

The follow-up committee investigated every maternal death in Essex County by questionnaire at first, but during the past year a paid

investigator has made personal visits, using for reports the same blanks which were used in the survey by the New York Academy of Medicine.

The commission started its work in a small way, gradually developing during the past eleven years as the confidence of physicians has been gained. The work is financed by the Essex County Medical Society. During the existence of the Maternal Welfare Commission, the uncorrected maternal mortality for Essex County according to the State Board of Health has been reduced from 69 to 44 per 1,000 live-births and in Newark from 74 to 45 per 1,000 live-births.

As a result of this work in Essex County, a Maternal Welfare Committee was appointed by the State Medical Society two years ago, the object being to organize Maternal Welfare Commissions in every county. This has been accomplished in all but one county and we hope to interest this county before long. The work in some counties is much more advanced than in others, but each county has its problems, and time will be required to get the desired results.

The State Committee meets twice yearly with the members of the various commissions. Reports are heard from each county represented. There is also a talk by some prominent obstetrician. One meeting is held at the time of the State Society meeting at Atlantic City in June and the other in Newark in the winter. On the whole, there has been great interest shown and we have had excellent co-operation.

In New Jersey, much of the obstetrical work is done by general practitioners and any plan to improve obstetrics must include them. This is done by allowing them to attend cases in our best hospitals under supervision and subject to certain rules. At Orange Memorial Hospital, which takes emergency and ambulance cases as well as private cases, seventy general practitioners attended cases in 1933. There were 1,045 deliveries with three maternal deaths and only five cesarean sections. Physicians are expected to follow the regular hospital routines, and the following rules are posted in each delivery room:

Consultation with one of the obstetrical staff is required in all of the following cases:

- (a) All prolonged labors (24 hours),
- (b) Cases requiring cesarian sections,
- (c) Breech presentations (unless very premature),
- (d) Difficult forceps cases or versions,
- (e) Occiput posterior presentations requiring forceps or version,
- (f) Other complicated cases: eclampsia, placenta praevia, etc.

In some hospitals in the county the rules read "Consultation must be had with a qualified consultant," giving a little more choice.

If the general practitioners are not allowed to attend cases in our best hospitals, they are obliged to use the private nursing homes or keep the patient at home. In neither of these places do they have any supervision nor is it easy to get consultation without considerable

trouble and expense. In the supervised hospital, consultations can be promptly given without charge unless the patient is able to pay a moderate fee.

Therefore, we recommend a sufficient number of beds in Class A hospitals where the general practitioners as well as the obstetricians may take their patients, where their work may be supervised, and where they may have the advantage of consultation in abnormal cases.

The second successful plan is that of the Hospital Obstetric Society of Ohio, part of which is presented herewith verbatim.

HOSPITAL OBSTETRIC SOCIETY OF OHIO

Obstetric Recommendations for Group 1 Hospitals

The recommendations of the Hospital Obstetric Society of Ohio covering Group 1 hospitals were presented to the April 1935 convention of The Ohio Hospital Association and referred by the convention to the Committee on Professional Relations with power to act. These were considered by the Committee in conference with a committee of The Hospital Obstetric Society and after some revision they were approved. They now become the joint recommendation of both the Hospital Obstetric Society of Ohio and The Ohio Hospital Association for Group 1 hospitals, that is, those having 24 or more bassinets, or more than 300 deliveries per year. In the interest of better hospital obstetrics, The Ohio Hospital Association urges every hospital in this group to adopt these standards as rapidly as possible. The recommendations are as follows:

The Committee on "Organization and Standards" of the Hospital Obstetric Society of Ohio, in presenting this report, has been conscious of the economic and financial state of the Hospitals of Ohio, and has endeavored to avoid imposing unnecessary additional burdens. We do, however, request your wholehearted cooperation by rearranging, where necessary, existing structural facilities, and reorganizing the obstetric staff and nursing services to comply with our required standards. We are all aware of the unwarranted and unjust criticism hospital obstetrics has had to endure. Possibly some has been merited. It is our desire, with your cooperation, to so conduct the obstetrical department in our hospitals that the end results will disprove further unmerited comment. With whatever acumen, skill, energy and idealism we are endowed, we have dedicated ourselves to the task of making motherhood safe in our Ohio hospitals.

1. There should be in each hospital a definite organization of the obstetric staff, with a director and associates, senior attending, junior attending physicians, residents and internes—

all elected for ability, not popularity. There may be a courtesy staff. The Director of Obstetrics should be an F.A.C.S. or diplomat of the Board of Obstetrics and Gynecology.

There must be definite periods of service. Residents should not and internes shall not serve in other departments when on obstetric service. This requirement will necessarily be modified for Group 2 and 3 Hospitals, but not to impair the observance of a rigid obstetrical technique.

The Director shall be responsible for the medical conduct of the department and shall formulate all rules and regulations, with power to enforce, governing the operation of the department, in cooperation with the hospital administration.

Each hospital shall secure the signature of each physician having the privilege of obstetrics in that hospital to the following pledge:

I, the undersigned member of the Courtesy Obstetric Staff of _____ Hospital hereby agree:

(1) That the care of each of my patients admitted to the Obstetric Division of _____ Hospital, shall be subject to intervention, supervision and control by the Director of Obstetrics or his chosen representative, whenever in the judgment of the Director such intervention, supervision or control is advisable for the welfare of the patient.

(2) That I will attend the regular conferences, clinics and meetings of the staff as requested by the Obstetric Director.

(3) That I will make all reasonable effort to improve my knowledge of obstetrics and skill in its practice.

(4) That I will be subject to and will conform with such other rules and regulations as shall from time to time be made by the Hospital for the good of the service or the benefit of the patient.

(Date) _____ (signed) _____

Where major obstetric procedures are indicated, that is, any interference in a case where the presenting part is not engaged, authority must be obtained from the Director of Obstetrics or his authorized representative.

The Director and active staff shall formulate a routine obstetric technique ante-, intra-, post-partum, to which all physicians attending an obstetric case must subscribe and be rigidly controlled by the Director of the Department, so that there shall be neither omissions nor supplemental procedures instituted. Residents and internes under no condition, shall serve in the capacity of consultant or perform a major obstetric procedure at the request of any physician attending a private obstetric case.

(2) Records shall consist of suggested forms attached—ante-partum, intra-partum, progress notes, bedside notes, laboratory and pathological record. All records shall be completed at time of the patient's discharge, and transferred to record librarian and record committee of the staff for checking and classification before permanent filing. Case records shall be available to the staff for statistical study. Exactness is urged as these records are of statistical value only when correctly complete.

(3) There should be adequate laboratory facilities available to the obstetric department, chemical, bacteriological, serological, pathological, X-ray, metabolism, cardiology, and if possible photographic.

There shall be weekly, bi-weekly or monthly conferences of the obstetric staff, at which the clinical work of the department shall be reviewed and discussed.

Special attention is to be paid to mortality, morbidity, still-birth, infections and complications of labor.

(4) The Hospitals' Obstetric Department should provide for patient occupancy in a single unit of space, not interrupted by space used for any other purpose. It should be a compact unit, containing the following facilities, the private room, semi-private room (2 beds) wards, private or free, not to exceed four (4) beds each. In semi-private and four (4) bed wards, some provision for privacy should be provided by screening in some manner, movable or permanent, as will be most feasible in the hospital set up. No other type of patient shall be placed in the obstetrical division. Provision for isolation, for infected cases, is mandatory, preferably in single room with running water and individual nursing facilities. There should be an isolation unit in each nursery or a separate nursery with cubicle arrangement to which any baby developing a skin rash, temperature or infection can be transferred. The general nursery should be sound-proofed and so situated, as not to annoy the mothers. Bathing facilities should be adequate, and there should be self-contained nursing facilities with service rooms. The general nursery should not be in close proximity to the labor or delivery rooms. There should be individual cribs, so placed that there is sufficient space between cribs, that nursing service will not be impaired. The delivery suite should have labor or pre-delivery rooms one for each 15 patient beds, each accommodating only one patient. The labor rooms should have their separate service room, fully equipped for nursing service. There should be one delivery room for each 25 patient beds. In construction and equipment they should be comparable to the standard operating room and should have a service room equipped with sterilizing facilities, instruments and water, warming units for blankets, linens and solutions, instrument and waste sinks.

Dressing, gowns, etc., should, preferably, be requisitioned from the central supply station. There should not be more than one delivery table in the delivery room so that rigid surgical technique can be maintained. The labor and delivery rooms should be a self-contained, separate unit, so situated that there may be some degree of isolation to minimize noise, confusion and disturbance to patient occupancy. Most important for isolation is the maintenance of rigid aseptic technique to minimize cross infection. The entire obstetrical department shall be under the supervision of a graduate nurse preferably one who has had post-graduate training in obstetrics, and endowed with executive ability. The delivery room nursing personnel should be trained in obstetric procedure and should not serve in the surgical department, in order that cross infections be avoided. Detailed obstetrical and nursing procedures, including anaesthesia have been purposely

omitted, except that under no circumstances should nurses serving on the obstetric division, be permitted to contact patients on any other service, nor shall nurses from other divisions, circulating nurses, etc., be called upon to serve in the maternity division. These procedures should be set up in the hospital house rules and regulations.

(5) Almost all hospitals are characterized by the spirit we call "Personality," reflecting the enthusiasm, idealism and progressiveness of their medical, administrative, and nursing staffs. This spirit should be encouraged, for it has always been the "force" stimulating us to greater achievement. We appreciate that rigid standardization negatives this "spirit" and in a large measure creates human automatons. The standards we present in this report are in the nature of a statement of principles, and we look to the initiative of each institution for the development of methods, which are appropriate to its individual requirements and which have been found by trial and experience to be the safest and most effective in restoring the patient to her previous natural life. The executive committee of the Hospital Obstetric Society of Ohio was afforded the privilege of reviewing that most excellent and comprehensive "Manual of Maternity Care" prior to its presentation to The American Hospital Association by Dr. Buerki at the Philadelphia meeting. We recommend this manual to you as a guide in formulating your respective house rules and regulations, as it embodies the accepted principles and procedures, both staff and administrative, essential in conducting the efficient operation of a Hospital Obstetric Division.

As a matter of fact, one large hospital in Buffalo has already begun to act along the lines indicated in the above reports. On March 25, 1937, the president of its medical staff sent letters to members of its staff containing this paragraph:

All physicians attending obstetrical patients in this hospital shall be requested to call a consultant, either from the Attending or the Assistant Attending Obstetrical Staff of this hospital, or from the Attending Obstetrical Staff of any other approved hospital, in all abnormal cases and before they may undertake in this hospital, any operation of greater extent than low forceps delivery.

The Maternal Mortality Survey Committee, County of Erie, proposes the following obstetric plan for the County of Erie.

The Special Maternal Mortality Sur-

vey Committee shall be dissolved and replaced at once by a permanent committee to be known as the "Obstetric Council of the Medical Society, County of Erie."

This Council shall function as follows:

1 *Organization* The Medical Society, County of Erie, shall request each hospital taking obstetrical cases to appoint a representative from its obstetric staff (representative is to be a member of the Medical Society, County of Erie) to the Obstetric Council of the Medical Society of the County of Erie. This group shall organize and elect officers and proceed to carry out.

2 *The Purposes of the Obstetric Council* This Council shall carry on the statistical and educational work of the survey (Ex "sampling study" mentioned above), working generally towards the goal of a lowered puerperal mortality rate and the general improvement of obstetric practice.

3 *Education of the Public* This shall continue in cooperation with the Child Health Week Committee and with other recognized public agencies. This education is to stress particularly minimum accepted standards of prenatal, delivery, and postnatal service by physicians and nurses both in institutions and in homes. Stress is also to be laid upon the public's responsibility.

4 The Council shall stand as a source of authoritative information on obstetrics to the social agencies and to the community at large.

5 The Council shall promote free and open staff discussions in the individual hospitals, to develop better hospitalization methods, to study all conditions which affect the welfare of obstetric patients and to introduce and maintain standard approved obstetric technique in all the institutions of the city.

6 The Survey Committee finally recommends that this report be published at once and that each member of the Medical Society be furnished with a copy.

925 DELAWARE AVE.

Two members of the state legislature, Senator Thomas C. Desmond, of Newburgh, and Assemblyman Charles H. Breit-

bart, of Brooklyn, have announced that they will introduce new premarriage medical examination bills at the next session.

DIFFERENTIATION BETWEEN RECEDING AND PROGRESSING CASES OF PETROSITIS

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Before proceeding to the discussion of what factors distinguish the progressing from the receding cases of petrositis, it is necessary to review in brief the basic symptomatology of this disease. The clinical picture is composed of general signs and symptoms, and localizing or focal signs. The former comprise homolateral pain distributed along the first branch of the fifth nerve, usually intra- or supraorbital, narrowing of the palpebral fissure on the affected side, recurring or continuing tympanomastoidal purulency, and a low grade sepsis. The latter, the localizing signs, embrace evidences of involvement of the sixth, seventh, ninth, tenth, and eleventh nerves, vertigo, nystagmus, nausea, and vomiting of a transitory nature. To all these should be added the roentgenological findings.

The basic picture of eye-pain, recurrent or continuing otorrhea, narrowing of the palpebral fissure, and low grade sepsis still stand as our best diagnostic aid. True, a septic type of temperature not always is present in sinus thrombosis, nor is pain or tenderness always present in acute surgical mastoiditis, but these phenomena are considered the ordinary or common ones from which all departures are considered uncommon. For these departures, however, there are definite explanations, and so when present, do not handicap one in the diagnosis of this disease, because we have been schooled to recognize and evaluate them.

So in petrositis. The time is ripe for a concentrated study of the entire clinical picture, for the determination of what constitutes a case of petrositis, for a clinical means to determine the site of the lesion in the petrosa, and lastly, what this paper concerns itself with, a portrayal of what indicates progression as contrasted with regression of the living pathology in the petrous perilabyrinth.

The expression "living pathology" is used advisedly. It indicates, for us clinicians, a picture of a vital process, an active propelling phenomenon which stands in sharp contrast to the "terminal pathology" found at autopsy. So, with the aid of clinical observation there must be produced in one's mind a moving picture of the pathology in the patient who presents symptoms of petrositis. The surgeon is able to do this with no difficulty in acute suppurative appendicitis. The internist is no less capable in ascertaining the progress of a pneumonia. We otologists are able to judge almost to a nicety the progressing and regressing pathological stages of an acute purulent tympanomastoiditis *from clinical observation alone*.

To begin with, it is felt that the knowledge of the entire subject will be advanced by a wedding of Kopetzky and Almour's "osteitis" and Eagleton's "osteomyelitis." With William's statement to the effect that the two usually occur simultaneously in the petrous bone where air spaces and marrow spaces are situated side by side, there can be no exception taken. The term "osteomyelitis" of the petrous bone should be reserved for those cases, usually occurring in infancy, which so adequately have been described by Ramadier. It is suggested that "coalescing petrositis" be used as a descriptive clinical general term embracing the several anatomical and bacteriological forms of the disease as they occur in the living, leaving to the pathologist his own terminology. "Coalescing" is preferable to "coalescent," since the former suggests a continuous process, whereas the latter indicates a completed lesion.

Confronted at the bedside with a given case wherein signs and symptoms of petrosal involvement are evident, one must determine what course to pursue. From personal experience and from the

experience of others, subjective signs and symptoms may appear (1) Prior to the development of a suppurative mastoiditis, (2) Concomitant with the clinical recognition of a surgical mastoiditis, (3) After a simple mastoidectomy has been performed for the relief of a purulent mastoiditis.

With the comprehension of this, the recognition of the receding from the progressing case becomes simplified.

1 Where the pneumatic spaces in the mastoid process as yet show no involvement, as evidenced by otoscopic and roentgenological examination, and where some of the general signs of petrositis appear, such as eye-pain and narrowing of the palpebral fissure, they should be viewed in the same light as we look upon the presence of mastoid pain and tenderness in the earliest stage of an acute purulent otitis media. All of us know, too well for repetition, that an inflammatory reaction occurs in the mastoid cells with every case of acute purulent otitis media, and that it is present from the onset of the lesion. The tenderness over the bone, the pain frequently complained of, the x-ray evidence of clouding, and the fundamental histological studies of Schiebe, are adequate proof of this. Why not make use of this data now to explain the symptoms of first branch pain in the early stages of an acute otitis purulenta as the result of inflammatory reaction in the pars petrosa without coalescence having occurred?

With the establishment of drainage from the middle ear however, these symptoms should subside gradually, just as the tenderness over the mastoid process gradually disappears following myringotomy. Where the symptoms increase in severity, where an abducens palsy appears, where transient vertigo, nausea, and vomiting or facial palsy is complained of, a coalescing process and an advancement of the lesion is denoted. A simple mastoidectomy becomes indicated for drainage and exploration. A simple mastoidectomy, since the lucid description by Whiting, has carried within its meaning a complete exenteration of all diseased structures reachable through the operative approach. No one has had the temerity to allude to what we call the "simple mastoidectomy" as a "mastoidozygomatico-occipito-squamosectomy," but that is what we do. Then why not include in its meaning, and in its performance, the removal of all diseased tissue in the field of operation. It should be done in every instance, since a coalescing petro-

sitis involving this exposed area can and most often will produce an inflammatory reaction in the rest of the perilabyrinth, with all the basic signs of the lesion. The fact that this procedure very often is successful in affording a cure in *these types of cases* has given rise to the conception that all types of petrositis respond to the complete simple mastoidectomy.

Where symptoms continue unabated following the complete simple mastoidectomy further progression of the lesion is denoted, and additional surgical measures are required if a cure is to be obtained while the lesion is still intrapetrosal, and before it has ruptured. Recession is evidenced by a gradual lessening of all symptoms present.

2 Where the signs and symptoms of coalescing petrositis appear concomitantly with the development of a surgical mastoiditis, a simple mastoidectomy is indicated principally for the relief of the suppurative mastoiditis. In the course of the operation, search should be made for a fistulous opening in the portion of the petrous bone exposed by the surgery. When found, this should be enlarged and drained. Diseased cell tracts should be followed and eviscerated. Recession of the petrosal lesion in these cases is evidenced by an almost immediate diminution, usually within thirty-six hours, in the intensity and duration of the pain, no matter where located. The otorrhea subsides, and no transitory symptoms due to involvement of the intra- or juxtapetrosal structures appear. Progression of the lesion is to be suspected when the clinical findings persist and are augmented. Further surgery then becomes necessary.

In both of the above categories the x-ray picture plays an important role. The findings on the x-ray films should be interpreted, *first*, as an individual factor giving information of the status quo, and *second*, in comparison with films previously taken of the same patient, affording information of the moving pathology. Where only clouding is present, and where halisteresis and cell coalescence is absent, and in successive films this status is maintained, one can expect recession of the lesion providing these findings are in accord with the clinical observations. Where some evidence of beginning halisteresis or of even localized destruction of bony septa is present, but upon successive plates this has not increased, recession of the lesion can be looked for when this finding is associated with gradual improvement in the clinical picture. By this is meant a lessening in the intensity of the retro-orbital pain, a diminution of the otorrhea, and a marked improvement

in all symptoms pertaining to the neighboring structures that may be involved by a petrosal lesion. Where successive x-ray plates show an increase in halisteresis, septal destruction, and coalescence, a progression of the lesion is to be expected and adequate therapy instituted before the suppurative focus ruptures extrapetrosally.

It is not amiss at this point to caution against labelling every case showing clouding of the petrous portion of the temporal bone a case of "coalescing petrositis." Taylor has emphasized this. If we but apply our knowledge of the interpretation of mastoid films to that taken of the petrous bone, this error will soon correct itself.

3 In by far the greatest number of cases, signs and symptoms of petrositis make their appearance after a simple mastoidectomy has been performed for an acute surgical mastoiditis. Within a varying length of time postoperatively, some or all of the basic signs and symptoms make their appearance, often grouped with one or more of the localizing signs. It is in these cases, more so than in those of the preceding two groups, that the acute problems present themselves. In the first place, a differential diagnosis must be made from other conditions causing the same symptomatology. Secondly, a careful, mature, well-studied conclusion must be reached as to whether one is dealing with a coalescing petrositis which is in a stage of recession or of progression. Lastly, where one has succeeded in draining a focus in the petrosa by one or another means, one must determine whether the drainage afforded has been and continues to be sufficient for the cure of the lesion.

This paper does not concern itself with the differential diagnosis of coalescing petrositis. With the second problem, however, it can be said that regardless of what signs and symptoms may be present, regardless of what significance they may have in localization of the lesion in the pars petrosa, the differentiation between a case of coalescing petrositis which is in the process of regression and one which is progressing rests upon the close, almost hourly observation of the transitory changes in the clinical picture presented. Not only your own findings, but the nurse's notes and her comments, and the patient's statements and reactions to his surroundings must be given the most careful consideration and study. Nothing is too trivial to be passed over lightly.

It is very difficult to put into words what is ordinarily termed "clinical intuition." In addition, not all of the cases of coalescing petrositis present an identical symptomatology. Consequently, at the risk of being termed didactic your essayist attempts to list the salient factors, all of which can occur in this disease either separately or in conjunction with one another that may help in distinguishing a recurring from a progressing lesion.

PROGRESSION should be suspected—

1 When the symptom of pain, wherever located, but predominantly referred to the distribution of the first branch of the fifth nerve increases in severity and duration, loses its nocturnal character and occurs also during the greatest part of the day, changes from a localized symptom to become more general in its distribution, *suddenly* disappears. The latter, from personal experience, is a grave sign indicating a rupture through the petrous bone.

2 When the otomastoidal discharge continues to be profuse, or *suddenly* ceases. In the latter instance one should suspect a rupture into the lateral pharyngeal spaces.

3 When transitory phenomena make their appearance

- a A transient facial weakness
- b A transient dizzy spell, not actual directional vertigo
- c Transient vomiting and nausea. These are not projectile in character, and are most often attributed to a "spoiled stomach" by the parents
- d. When an exhaustible ankle clonus, not previously noted, makes its appearance.
- e. When photophobia is complained of

4 When a homolateral abducens palsy occurs after other signs and symptoms have enabled one to make the diagnosis of coalescing petrositis.

5 When an abducens palsy, which was present prior to the performance of a simple mastoidectomy, fails to show improvement after this surgical measure has been instituted.

6 When evidences of involvement of the ninth, tenth, and eleventh nerves become manifest.

7 When signs of meningeal irritation appear.

8 When the patient becomes increasingly irritable, refuses the attentions of his nurse and family, and "wants to be left alone."

9 When the patient begins to look sick.

This must be given the same value that we attribute to it when estimating the progress of a mastoidal infection

These last two elements are of the utmost importance, and yet it is almost impossible to put the weight of their significance in words

REGRESSION can be expected—

1 When the pain, wherever located, *gradually* diminishes in intensity and duration, the patient has increasingly longer intervals of sleep and freedom from pain

2 When the otorrhea *gradually* lessens in amount

3 When *no* transient phenomena due to the irritation or involvement of the intra- or peripetrosal structures appear

4 When an abducens palsy, if present, shows signs of improvement.

5 When the patient "begins to look better," and takes an increasing interest in his surroundings

Further consideration must be given to those cases wherein progressing coalescing petrositis has been diagnosed, and wherein further surgery, regardless of its classification, has been instituted and drainage of the focus has been obtained. A fistula or diseased cell tracts may have been drained through the previously performed simple mastoidectomy, or a radical mastoidectomy may have located and drained the antelabyrinthine area. Nevertheless, the clinical picture continues unchanged or is added to by other symptoms. The x-rays here, with the possible exception of the Stenver's position which may reveal a rupture into the middle fossa, no longer help one. The pain continues or *suddenly* ceases. The abducens palsy fails to show improvement within twenty-four to thirty-six hours. Most important of all, the patient is still sick—he *looks* sick and he *feels* sick. It is at this stage that one must further attack the petrous bone if intracranial complications are to be avoided

The success of a fistula drained or of diseased cell tracts removed is soon apparent in the more than gradual improvement in the clinical picture. The failure of this to improve should not deter one from utilizing every means at his disposal to effect a cure. We have in our hands today tools to cope with every conceivable form of petrositis. Each has its use, and there remains only the intelligent comprehension of their use—how to use them, if to use them, and most important of all, when to use them.

A word should be said concerning the asymptomatic cases of petrositis. We are all familiar with the symptomless type of acute mastoiditis which occurs in diabetes, in the presence of other debilitating diseases, or is caused by the pneumococcus III and Friedlander's bacillus. These factors play their same roles in petrositis, and we must be guided in recognizing them by our clinical and roentgenological observations if we are to hope for any degree of success in overcoming these formidable types of infection when they occur in the petrosa.

This paper is offered as a "feeler," based as it is mostly upon personal observations. However, since no one as yet has attempted to formulate any criteria to guide us in differentiating between the regressing and progressing cases of *true* coalescing petrositis, let this paper be the first offering. Even though these remarks may be termed didactic, if they stimulate all of us to a broader view—a definite view,—instead of futile and sometimes destructive generalizations, this paper will have served its purpose,—especially so when the mature opinions and conclusions of others will have added to it, and, it is sincerely hoped, will have augmented the observations here presented.

71 E 80 St

Young doctors in civil life throughout New York, New Jersey, and Delaware will have opportunity to compete for appointment as first lieutenants in the Medical Corps of the Regular Army in examination Sept 13 to 17, it is announced at Second Corps Area headquarters

A year's internship is an approved hospital is required. Candidates must be male citizens and not more than thirty-one years, nine months.

Interested physicians may obtain information and application blanks from Adjutant General, Governor's Island

NON-POLLEN INHALANTS IN HAY FEVER

A Study of Their Part In Its Symptomatology

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Chief of Allergy Clinic, City Hospital, Physician, New York Hospital, O.P.D.

An explanation that has from time to time been offered to those who are confronted with the increasing symptoms and complaints of hay fever patients as the season progresses is that factors other than pollen influence the results obtained.

The diagnosis appears to have been correct, the dosage of pollen extract, adequate and potent, administered preseasonally and well into the season, the tolerance of the patient satisfactory, exposure reduced to a minimum, yes, even to the extent of partial imprisonment in a mechanized atmosphere—and yet, the result no better than in an untreated season. This has been observed in several consecutive years so that the factor of varying pollen concentration has been eliminated. What explanation is there, if any, for the poor results, estimated at from 91 to thirty-six per cent on the part of the country's ablest allergists?

Walker¹ in 1921 suggested that "fruit, bacteria, and exposure to olfactory irritants" may aggravate the symptoms of hay fever. Later as the scope of suspicion extended, other workers²⁻⁷ sought to indict various other inhalants, such as dust, animal danders,orris, foods, other pollens, nasal pathology, etc. Hyposensitization with these wherever possible or elimination from the environment, dietary restrictions, vaccinotherapy—all have been reported as helpful adjuncts to pollen therapy for hay fever. Reports of large series statistically are not available. One is led to wonder, therefore, if the recently increased popularity of the chemical and mechanical methods in the approach of this condition is not a reflection upon the actual status of our therapy even when all extraneous factors have been taken into consideration. Who has not confronted patients with progressive allergic disturbances, coming from the best clinics or the most capable al-

lergists where for years they submitted to treatment with little, if any, improvement?

It was in an effort to evaluate the part that nonpollen inhalants may play in the aggravation of hay fever that for the past four years (1933-1936), the patients of a hay fever clinic conducted in a large department store, have been asked at the end of each season to indicate on a questionnaire whether in their opinion the following list of substances appeared to aggravate their symptoms during their particular season.

Dust	Perfumes
Powders	Fumes (chemical)
Woolens	Tobacco smoke
Cotton	Cooled air (5 floors)
Paints	Soaps

One hundred forty-nine patients are included in this survey (ninety women and fifty-nine men) from nineteen to sixty years of age, in occupations ranging from porters and packers on substreet levels through the salespeople on the diverse merchandise floors, rich in their inhalant atmosphere, to the clerical workers in the offices. The usual pre- and coseasonal method, after intracutaneous testing, was pursued in the three groups sensitive to trees, grasses, or weeds, in an effort toward maximum dosage under the circumstances. The years of treatment this group received was as follows:

	<i>Patients</i>
4 years	33
3 "	23
2 "	28
1 "	65

During this time a total of 319 replies, equivalent to seasons of treatment received, was obtained with an accompanying expression of the estimated percentage of improvements in symptoms, if any.

Table I summarizes the numbers of patients claiming aggravation of symptoms by the various factors listed in the questionnaires.

It will be seen from this table that the one factor of significance in the aggravation of symptoms (stated in forty-one per cent of the replies) appears to be dust. The other substances listed were involved in from two to eleven per cent of the cases and would seem to be of even less importance when we remember that our clinic group returned to its daily occupations after a brief rest period following treatment and that its opportunities for exposure to the various non-pollen inhalants mentioned must have been vastly greater than those of the outside population. Its members gathered from such extremes of environment as the sub-basement mechanical departments, the stock bins, offices, garages, cold-storage vaults, sales floors, to the shops on the roof top. The very fact that so few of this diverse group were impressed with their exposure to the nonpollen inhalants or believed in their importance, even when it was suggested to them, would derive added significance.

In analyzing further the question of dust sensitivity it was noted that there was a definite variability in the replies from year to year as to its aggravating quality in a considerable number of patients. Thirty-three claimed that dust was not a constant factor during their years of treatment. Of this number eleven were treated for three and four consecutive seasons and in only one of these did they believe dust to be an aggravator, nine were treated for a similar period with dust as an alleged factor in but two seasons. Forty-two other patients noted dust in each of their treated seasons but it should be stated that twenty-two of this number were observed for only one season.

In Table II is shown a list of twenty-five patients in whom it was interesting to see the relationship between skin sensitivity to dust, presence or absence of clinical aggravation of symptoms by it and the degree of improvement as a result of hyposensitization by pollens alone. The reaction indicated by ++ would comprise wheal about $1\frac{1}{2}$ cm in diameter, with varying pseudopodia, and surrounding erythema of three or more cm in diameter—in other words, a well-marked reaction. The cases selected represent all those which had a

skin reaction of at least this degree during any of the treated seasons.

Half of this group, admittedly aggravated by dust and showing a marked skin reaction to it, still derived seventy-five per cent and more of improvement under simple pollen therapy, with no opportunity for avoiding dust exposure.

In a group of seven patients who showed a similar skin reactivity to orris root, only one admitted aggravation of symptoms by it and the majority had seventy-five per cent relief of symptoms with pollen therapy.

Skin tests would seem, therefore, to have disproven themselves once more as a dependable guide either to the clinical importance of the inhalants in question—dust and orris root—or to the expected results of therapy which does not include them in its scope.

The result of treatment (pollen) in those who for one or more years reported aggravation by dust is shown in the following:

Percentage improvement	More than 75%	75%	50%	25%	0%
Patients	18	41	8	12	0

Discussion

In view of the rather high percentage of unsatisfactory results from so-called preventive hay fever therapy and the explanation offered by numerous workers that inhalants other than pollen may be the aggravating factors responsible for this, it seemed desirable to survey this question from a practical, clinical standpoint. A group of 149 employees of a large department store, comprising a hay fever clinic that offered ample opportunity for inhalant exposure, was asked to indicate on a questionnaire at the end of each of four consecutive seasons of treatment whether a given list of the most common inhalants appeared to aggravate their symptoms during the particular season. There are, of course, the usual objections to this method of securing data and making any deductions therefrom, but since no more exact or inclusive measure of such symptoms as constitute hay fever exists and much of our previous information is based on it, we must of necessity resort to it. This much should be added, that the intel-

ligence of this group and the requested care taken in the answering of the questions was undoubtedly of a much higher order than that of the average clinic patient.

Dust alone from the standpoint of numbers, appeared to be an aggravator of symptoms. It was mentioned in forty-one per cent of the replies, equivalent to seasons of treatment. Powders and tobacco smoke were next, each with about eleven per cent frequency. The other inhalants were involved in numbers so small as to make their significance very questionable.

When the factor of dust was further scrutinized the following was revealed:

- 1 The inconstancy of its aggravating tendency from year to year in the same patient
- 2 Progressive improvement on pollen therapy in successive years although dust was reported as an aggravator
- 3 Lack of correlation between skin sensitivity to dust, its symptom-stress, and the therapeutic result with pollen only
- 4 Three-fourths of all those reporting dust as a factor in one or more seasons obtained seventy-five per cent or more of improvement in their symptoms on pollen therapy

Finally, with reference to dust, it may be well to remember that the constituent in it most responsible for the added effect ascribed to it may after all be pollen, enmeshed, concentrated, and more scaterable.

A number of studies have appeared recently concerning controlled atmospheric conditions in the alleviation of hay fever. While the number answering the question with regard to cooled air in this survey is too small for any deductions, it is interesting that almost as many felt the cooled air, which was supplied to five of the selling floors, intensified their symp-

toms as those who believed themselves benefited by it.

The problem of foods has not come in for special observation in this study. It may be mentioned, however, that their part in the symptomatology of hay fever has not been impressive and no case due primarily to foods has come to our attention.

If the conclusion that these observations have led to is correct, that the role of nonpollen inhalants in the symptomatology of hay fever is negligible, with the possible exception of dust as a factor apart from its pollen content, it is presented in an effort to encourage a re-evaluation of some of our accepted notions in regard to our therapy. In the words of Thommen it is "not an easy task to assign an adequate reason to the failures of pollen therapy. The reason for this may remain unknown till the exact mechanism of protection is ascertained and the offending pollen sub-

TABLE II

	Skin sensitivity	Symptoms aggravated by dust	Results
B. K.	++	Yes, each of 4 seasons.	Had almost 100% relief in last 3 seasons.
S. O.	++	No	75% improved.
C. R.	+ ± (35) ± (32)	Yes, but in only one season of treatment.	50% imp'd. that season 75% the next two and only 25% the last
F. S.	+ ±	Yes during 2 of 3 treated seasons.	75% imp'd.
B. S.	+ ±	No. Works in clothing dept.	75% imp'd.
B. T.	++	Yes during 2 of 4 treated seasons.	Last 2 seasons 70% imp'd.
M. W.	++ (33) + (35)	Yes during all 4 seasons.	25-50% imp'd.
M. Z.	++	Yes, in 3 of 4 treated seasons.	75% imp'd.
A. G.	++ (32) + (35)	Yes, during 3 treated seasons.	75% imp'd.
C. S.	+ ±	No. Treated 3 years.	50-75% imp'd.
J. B.	++ (32)	Yes once in 3 treated seasons.	50% imp'd.
A. C.	++	Yes in 2 of 3 seasons.	Up to 90% imp'd.
C. E.	++	Yes, in 1 of 2 seasons.	75% imp'd. Also had asthma.
M. M.	++	No. In 2 seasons of treatment.	50% better first none second year
P. B.	++	Yes during 2 seasons.	75% imp'd.
A. D.	++	Yes, one season.	75% imp'd.
C. K.	++	Yes, one season.	90% imp'd.
N. K.	++	No	75%
C. McQ.	++	No	90%
C. P.	++	Yes one season.	75%
N. B.	+ ±	Yes during 2 seasons.	25-50% better
M. B.	++	No. Treated 4 seasons.	25-50%
F. C.	+ ±	No	Up to 90% imp'd.
J. C.	++	Yes, during all 4 seasons.	50-75% imp'd.
A. H.	— (32) ++ (35)	Yes during all 4 seasons.	No improvement.

TABLE I

	1933	1934	1935	1936	Total
Dust	33	29	38	32	132
Powders	14	7	8	8	37
Woolens	3	6	6	4	19
Cotton	4	2	3	5	14
Paints	3	1	2	2	8
Perfumes	4	4	4	5	17
Fumes	3	2	2	2	9
Tobacco smoke	10	6	11	11	38
Cooled air	12	4	2	4	22
Soaps	8	3	6	7	24

stance is definitely known" To such knowledge, it is hoped, this study may serve as an added impetus

130 E. 39 St

Reference

- 1 Walker, I C *Arch Int Med*, 28 71 1921
- 2 Sebepegrell W., *N Y Med J*, 116 196 1922

- 3 Kern, R. A *M Chn N A*, 10 47, 1926
- 4 Balyeat, R M *J Lab & Clin Med*, 14 617, 1929
- 5 Gelfand, H H *J Allergy* 1 222, 1930
- 6 Feinberg, S M *Ann Int Med*, 3 1035, 1930
- 7 Cohen, M B and Rudolph, J A *Arch. Int Med*, 45 742, 1930
- 8 Thommen, A A, in Coca, A F Walzer, M., and Thommen, A A *Asthma & Hay Fever in Theory & Practice*, Chas C Thomas Springfield, Ill., 1931

THAT MATERNAL DEATH-RATE IS DROPPING

The lowest number of deaths of mothers at child-birth in any year is indicated for 1937 on the basis of maternal mortality records of the New York City Health Department for the first seven months of this year

Back of this record is a local drive by the medical profession and the Health and Hospitals departments, which as yet has hardly begun to bear fruit.

According to an interview in the *New York Evening Post*, Dr George Kosmak, secretary to the Advisory Obstetric Council to the Health Department, believes the slightly lower rate negligible compared to what he hopes eventually may be achieved

The maternal mortality rate is based on per thousand live births

For the first seven months of this year this rate was 4.4 deaths, compared with 5.0 in 1936 and 5.6 in 1935 for the same period

Except during the deep depression years of 1931, 1932, and 1933, when an average of six per thousand was recorded, this rate has remained constant for almost twenty years, ranging slightly above five deaths per thousand live births

"Even though 1937 should show a slightly lower maternal mortality rate, really demonstrable achievement is still to be realized," Dr Kosmak said

"A great deal has been done in the field of prenatal care, but if we are really to lower maternal mortality the emphasis must be on proper care during labor This is still the most important problem

"A better viewpoint has been reached by prospective mothers and doctors who have come to realize that a painless birth is not necessarily the safest for herself or the child"

Dr Kosmak declared that better handling of obstetrical cases and higher standards of hospital service remained a great need

The excessive use of anesthetics and operative technics to hasten labor is lessening, he said, with both patients and doctors realizing that normal, spontaneous delivery should be relied upon wherever possible.

The most recent large-scale analysis here showing mode of delivery was in 1933 In 21,000 births, almost one-fourth were deliveries aided by operative technic

In this study, the large public hospitals reported the highest proportion of normal deliveries, averaging about ninety per cent Some of the private maternity institutions, many of them considered the fashionable place to give birth to a child, showed operative type of deliveries in fifty per cent of the cases

A new study is under way by the five county medical societies, under the auspices of the Advisory Obstetric Council, with the Kings County Medical Society preparing the most intensive maternal mortality study ever undertaken in any borough

This report is expected to be ready late in the fall

Some improvement of conditions in private maternity hospitals resulted last year when Hospitals Commissioner Goldwater was given enlarged powers in supervising these institutions under the present licensing law

A number of them were unable to meet the requirements set up by Department of Hospitals and were forced to close their doors

Despite these improvements, however, the Hospital Survey for New York last May stated that while there were more than a sufficient number of hospital beds for maternity care, the actual care and handling of a patient was far from the best

The report recommended "that more effective supervision be maintained by State and local authorities over small voluntary hospitals accentuating maternity patients, and over proprietary hospitals offering service to such patients, and that higher standards of professional care be required in both"

Improvement in this field has been slow, according to the report of the Hospital Survey, which carried most of the recommendations announced by Health Commissioner Rice two years previously

THE WARBLE FLY—DERMATOBIA HOMINIS, LINN

Report of Two Cases Imported from Costa Rica

AARON SUMNER PRICE, M D, *New York City*

Clinical Professor of Pathology, New York Polyclinic Medical School and Hospital

Hegner¹ described three chief groups of flies invading man. The *Calliphoridae* or blow flies, the *Sarcophagidae* or flesh flies, and the *Oestridae* or warble and botflies. Most forms of the first two groups live in decaying meat and are found only occasionally as parasites. When they do invade man they have a tendency to feed on and destroy, with their powerful jaws, both the soft tissues and bone. If they are not removed the results may be disastrous to the host. The *Oestridae*, on the other hand, normally pass their larval stage as parasites, and they seldom cause the death of the host unless they are present in undue numbers or else situated in some unusual location. Dunn² reported a case of perforation of the anterior fontanelle, with death of the baby, but this is unusual.

Various members of the family of *Oestridae* pass their larval stage in the skin, the nasal passages, or in the intestinal tract. The larvae live in the host where they may cause rather violent inflammatory reactions, but the parasite seems to live on the exudates rather than the tissues proper. Matheson³ and Stitt⁴ each give a detailed classification of the Diptera that are associated with human diseases.

Dermatobia hominis (Linnaeus, 1781) is a large bee-like fly that is widely distributed through Mexico, Central and South America. It is not found in the United States. The flies are seldom seen because they live chiefly in wooded and forested districts. They have very rudimentary mouth parts and for that reason are not themselves biting flies. These flies secure a carrier to play a role in the wide distribution of their eggs and larvae. The female of the species catches other flies or mosquitoes and holds them in her clutches until she has glued to the ventral surface of their bodies some twenty or more ova of her own. The carrier is then set free. One *D. hominis*

female may use four or five carriers, each bearing a cluster of her ova. The eggs mature while attached to the abdomen of the mosquito, or fly, so that when the carrier rests on the skin of the mammalian host the larvae within the eggs make their exit and are then ready for penetration of the host's skin.

From the variety of carriers that have been described, it is possible that the female is not as particular in selecting the carrier as was once thought. Even the common house fly has been found to act in the carrier capacity. The most commonly used mosquito is *Psorophora* (*Janthinsoma*) *lutzii*, Theobald, which has been described as a vicious biter. Dunn,⁵ however, described a personal experience in which he found the eggs on a fly of the anthomyid type (*Species* *Limnophora*)—which is not a blood sucker—and decided to find out definitely whether this *Limnophora* fly was acting as a carrier for *Dermatobia hominis*, or some other species. The ova were found in a stage where the opercula (lids) of the eggs were loose, and the larvae ready to emerge. Two of the larvae were placed on his forearm, and with a hand lens he observed them to slowly penetrate the unbroken skin and bury themselves. Prior to this observation, it was presumed that the larva always entered through the bite caused by the carrier. Much to Dunn's amazement, and later discomfort, he found that he was harboring four additional larvae in other locations. Nevertheless, he permitted all to mature and found that within forty-six to fifty-four days the larvae emerged as full grown. He then incubated them in moist sand, since the pupal stage is usually passed in the ground. The full grown flies emerged from the pupal stage in from twenty-two to twenty-four days.

At first the entrance of the larva may not be recognized, but soon a pimple develops which gradually forms a warble,

or boil. In the central area, there is a small opening which discharges considerable serous exudate, and through which the tip of the larva protrudes so as to breathe through the spiracles in its posterior extremity. It shows early a series of rows of spines, or hooklets, which help to keep the larva anchored. The spines are short, stout, and directed backward. They probably, also, aid the larva in shifting its position. From time to time,

for several days. In cattle the larva fall to the ground where they will pupate. Healing of the lesions occurs within a few days after the emergence of the larva, and usually there is no permanent damage other than a small pigmented or depigmented scar in the skin.

Case Reports

CASE 1 A young Spanish male came directly from the boat to enter New



Fig 1 Second stage larva of *Dermatobia hominis* (ver macque) 10 X



Fig 2 Larva of *Dermatobia hominis* 3 X.

the tip end seems to be busy, working in and out through the skin, pushing away the old exudates. At first, the larva has an enlarged club-shaped head, with the club buried (ver macque stage). Moulting takes place about the tenth or twelfth day. The larva grows until it is more or less blimp-shaped and covered by small spines (torcel stage). The second moulting takes place about the twenty-second to twenty-fourth day. The moults are pushed out through the pore, or sinus opening. At these times, the parasite may be very annoying, due to its activity.

Projecting hooks or barbs at the posterior extremity are used at various intervals to rasp the margins of the sinus opening and clear it of encrusted exudates. This rasping activity may be particularly noticeable for several days preceding the emergence of the larva. At the proper time, the larva seems to pop out, rather unexpectedly, after having seemingly made trial and partial exits

York Polyclinic Medical School and Hospital on the private service of Dr. T. J. Tobin. He complained of edema, pain, and swelling of the upper right eyelid which had increased in severity throughout his trip from Costa Rica, by way of Puerto Rico, to the United States. The lesion was of several weeks duration. He was unable to separate the palpebral margins because of the edema. A definite small pinpoint-sized sinus opening was present which exuded a small amount of serum. The immediate area surrounding this was red and indurated. Hot poultices were applied without softening the area. A small incision was made and a shiver-like body about six mm in length, presenting a dark colored knob at the buried end, was removed. Healing occurred promptly and the edema disappeared in several days.

The body removed from the eyelid was brought by the nurse to the laboratory. An enlarged photograph of the ver macque stage is shown (Fig. 1). Numerous small spines may be seen over the head end. The softer and lighter colored undeveloped body

was directed outward. Later, the patient stated that he probably acquired his parasite in Costa Rica, prior to sailing.

CASE 2 The second larva was brought to the laboratory for identification by Dr Angel Golderos. His patient gave the history that he had been hunting in Costa Rica. A "wicked" mosquito bite was obtained in the upper right thigh above the boot line. Later a warble developed. He came to the United States by way of Puerto Rico. Whenever the patient was on land, the lesion itched like "fury." However, as long as he was on the sea, the area caused him little disturbance. Immediately on landing in Puerto Rico, and again in the United States, the itching commenced. (Usually these lesions itch or pain worse at night.) The patient expressed the belief that the salt air had something to do with the relief from itching, although it is likely that the lower temperature on the sea lessened the activity of the parasite. The patient passed through the hands of six different physicians, all of whom prescribed poultices and ointments to hasten the ripening of the boil. Dr Golderos found a large, painful, indurated, and reddened abscessed area which was exuding a serous exudate through a small sinus opening. A dark body could be seen moving in and out at the opening. An attempt was made to grasp this dark body with forceps, but immediately the parasite retracted out of view when the area was touched, only to reappear as soon as the forceps were taken away. Regardless of the speed used in the attempts to grasp the dark object, it was gone into the tissues in a flash and was out of reach. Pain prevented extensive probing or gouging. Dr Golderos "finally" realized that this object was probably some form of tropical parasite, and he logically reasoned that cold might do it damage. Ethyl chloride was used to freeze the area. The following day the patient returned to have the dead larva easily removed with the forceps. The wound healed rapidly with all signs of inflammation receding in about five or six days. Photographs of this almost mature larva show that it probably would have escaped of its own accord within a few more days. It is estimated that the patient had

carried the larva about forty-three days (Fig 2)

Although Mook⁶ has previously reported a case in a patient coming from Yucatan little more need be said, since the infestation is not primarily a lesion found in the United States. In the countries where the fly is found, the damage to animals is definitely of economic importance. When cattle are heavily infested they lose weight, become sickly, and are covered with warbles. Their hides may be completely ruined for commercial purposes by the number of holes produced.

Cattle, horses, donkeys, mules, cats, and dogs, as well as wild animals and man, may be infested. It is believed by Navarro⁷ to be especially prevalent near the eucalyptus trees and forests in Sao Paulo, Brazil, and Dunn⁵ reports the disastrous financial loss to the government of Panama, which tried to encourage cattle raisers.

Native treatment consists chiefly of poisoning the larva with tobacco juice poultices and then squeezing, others have incised and then squeezed out the larva. Generally, the latter procedure is too painful without first killing the parasite. Stitt⁴ recommended injection with phenol or chloroform. Matheson's suggestion of freezing, before squeezing out the larva was improved upon by Dr Golderos by first killing it by freezing and then merely lifting out the larva with the forceps at a later time.

345 W 50 St

References

- 1 Hegner, Robert. *Practitioners Library of Medicine and Surgery* 3 523, Appleton & Co., 1933
- 2 Dunn, L. H. *Jour Parasitology* 20 219, 1934
- 3 Matheson, Robert. *Medical Entomology*, p 391 Chas C Thomas & Co., Springfield Ill 1932
- 4 Stitt, E. R. *The Diagnostics and Treatment of Tropical Diseases* p 598 P Blakiston's Son & Co., Phila Fifth Edition 1929
- 5 Dunn, L. H. *Psyche*, 37 342 1930
- 6 Mook, W. H. *Arch Dermatol and Syph* 1 515, 1920
- 7 Navarro. Cited by Matheson, 1927

ANNUAL CONFERENCE OF COUNTY SOCIETY SECRETARIES

Announcement is made that the Annual Conference of County Society Secretaries has been called for Wednesday, September 15 at 10 A M at the De Witt Clinton Hotel, Albany

PETER IRVING, Secretary

COLLAPSE COMPLICATING VARICOSE VEIN INJECTION OF SODIUM MORRHUATE

EUGENE F. TRAUB, M.D. and WILLIAM B. SWARTS, JR., M.D., *New York City*
From the Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital,
Columbia University

In the routine practice of treating varicose veins, one often overlooks the fact that dangerous complications may occur in addition to the minor troubles such as pain at the injection site, phlebitis, periphlebitis, and sloughing. We all fear the possibility of a thrombus breaking off and giving rise to pulmonary embolus, fortunately, however, this is a very rare occurrence.

In the last four years, there has been an increasing number of reports of cases which have had allergic-like reactions following the injection of a five per cent solution of sodium morrhuate for the obliteration of varicose veins. Zimmerman of Chicago was the first to report these allergic-like reactions. He reported four cases, two of which had systemic reactions which were allergic in character and were characterized by weakness and dizziness. These two patients did not lose consciousness and the reactions only lasted about one hour. The other two patients had allergic skin manifestations.

It was noticed by Zimmerman that the patient in whom the reaction was most severe had received numerous injections each week or every second week and then had a "rest or lapse period" of seven weeks before receiving the injection which gave her the anaphylactoid reaction. This time interval seems most important and the greatest care should be practiced when more than the usual time is permitted to lapse between treatments.

The intradermal test can be used to test for sensitivity but as yet the practicability of this procedure has not been proved. Zimmerman also reported reactions following the initial dose of sodium morrhuate. It is evident that care and small dosage should be the rule for the first injection. The reason the offending substance cannot be very well studied by the usual intradermal tests is that the solution is essentially an irritating mixture to promote thrombosis and subsequent fibrosis and obliteration of the ves-

sel lumen. The skin of normal people reacts positively to diluted solutions of sodium morrhuate so that attacking the problem with our usual methods is of doubtful value.

Praver and Becker² observed sensitization phenomena in three per cent of the cases in a large clinic where sodium morrhuate was the sclerosing solution. They divided the complications into cutaneous and nutritoid. It was recommended that an immediate change should be made in the solution used when allergic-like symptoms developed. Allergic testing also failed in their hands for the above reason.

Lewis³ recently reported a severe state of shock following the injection of five per cent sodium morrhuate from which the patient recovered in five hours without requiring hospitalization. The cardiovascular collapse which was noted in his patient is interesting when compared to the cases we are citing. An urticarial skin eruption was present with systemic reaction.

Case Reports

CASE 1 J. H., female, aged fifty-eight, appeared October 16, 1935 at the Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital with a varicose eczema of both lower legs. Since she had many varicose veins, it was felt that obliteration of the veins with diminution in stasis edema would benefit the skin eruption. Beginning that date she received 25 c.c. of five per cent sodium morrhuate which was continued at about two week intervals for a total of ten injections, the last of which was given on February 26, 1936. She returned May 20 and received another injection with no ill effect.

The varicose eczema so improved during the summer that she stopped treatment, but she appeared September 21 in the clinic with a slight recurrence of the varicose eczema. Again it was felt that the skin condition would be improved by the further obliteration of the remaining varicosities. Accordingly she was given 25 c.c. of

five per cent sodium morrhuate and about one hour later, on her way home from the clinic, she felt so weak and dizzy that she was compelled to sit on the street curb for thirty minutes before proceeding home.

She did not report to the clinic her spell of dizziness, and returned for another injection of 25 c.c. of sodium morrhuate September 30. No immediate reaction followed, but the next day she felt so very weak and nauseated that it necessitated her going to bed for two hours. She said later that she did not feel like herself for two days.

Still not reporting her previous complications, she came for another injection October 21, and received the usual 25 c.c. of five per cent sodium morrhuate. Immediately after this injection, the patient passed instantly into a deep comatose state, became very cyanotic, and pulseless with much foaming at the mouth. The pupils were contracted. As quickly as possible, 15 c.c. of 1 1000 adrenalin was given, together with 0.5 gram of caffeine sodio-benzoate. No improvement was noted in condition and she was rushed to the hospital ward.

Because of very evident cardiovascular collapse and difficult breathing, an intravenous solution of ten per cent glucose in normal saline was started and 1000 c.c. allowed to run into the patient. She was also given 0.5 gram of caffeine sodio-benzoate with $\frac{1}{2}$ c.c. of 1 1000 adrenalin every half hour. Projectile vomiting was present. It was not possible to obtain a blood pressure reading. The patient remained in deep coma with signs of severe shock and impending death for $2\frac{1}{2}$ hours. Very gradually, she regained consciousness and complained of very severe headache. Water could not be retained for five hours because of marked nausea, and prolonged projectile vomiting. Six hours after collapse, her blood pressure was 105/80.

The next day, the patient was so weak that she was compelled to stay in bed. Neurological examination did not reveal any paralyses, but just a generalized weakness. Since the patient had persistent, severe headache with projectile vomiting, the possibility of an acute cerebral vascular accident was entertained.

Two days later, she still complained of weakness and dizziness. Her blood pressure rose to 138/78. There were no signs of any cerebral vascular catastrophe.

Four days after the collapse, she was discharged from the hospital. The general weakness and dizziness still persisted to some degree, but it was felt that she could recover her full strength at home as well as in the hospital.

No allergic history either in patient or in family could be elicited.

Laboratory studies on the urine were negative. The blood showed a leukocytosis of 12,700 with a normal differential count. No eosinophilia.

CASE 2 MM, male, age fifty-two, presented himself May 1933 for treatment in the varicose vein clinic of the New York Post-Graduate Medical School and Hospital. He had extensive varicosities with concomitant eczema on both lower legs which had been present for thirty years. There was no contraindication for injection therapy. Five per cent sodium morrhuate was selected for the sclerosing agent and he received three c.c. of the solution at the rate of two injections a month. A total of fourteen injections were given. The therapy was stopped in December because of marked improvement.

The patient was not seen again until October 10, 1936, approximately three years later. He had a recurrence of marked varicosities and an ulcer on the lower third of the inner side of his right leg. Injection therapy with two c.c. of five per cent sodium morrhuate was again started. A week later he received the same injection. He did not complain of systemic after-effects from these injections, but had considerable local pain which was not present when previously treated.

On October 31, the patient returned for another injection and was given two c.c. of five per cent sodium morrhuate. Shortly after the administration the patient felt weak and dizzy and very quickly lapsed into a state of deep stupor. Cyanosis and great respiratory difficulty were noted. The pulse was weak and thready. Foaming at the mouth was present. Fifteen minutes later, no pulse could be perceived nor could the blood pressure be obtained. Because of the great evident respiratory distress, oxygen was administered through a nasal catheter after the mucous was aspirated from the throat. Caffeine sodio-benzoate, adrenalin, and coramine were administered in quick succession. During all these procedures, the patient gave no signs of muscular activity except the very shallow breathing. In about forty-five minutes, there was some evidence of recovery and he was quickly taken to the hospital ward. A provisional diagnosis of coronary thrombosis was made.

It was not until two hours after the collapse that the patient regained consciousness. Intravenous solutions were not given because of the fear of coronary thrombosis. His blood pressure reading was 114/60.

An allergic history revealed that one sister has hay fever, but there never had been

any previous allergic episodes in the patient's past history

Urinalysis revealed no abnormal findings. Blood counts revealed no eosinophilia. Wassermann reaction negative.

Three days after the collapse, an electrocardiographic study showed no signs of coronary thrombosis.

On the third day after admission, patient was fully recovered and was discharged.

Comment

In Case 2, five per cent sodium morrhuate of a different brand was used which tends to exclude a particular make as being the cause of the collapse. This patient also had a series of regularly spaced injections followed by a "rest or lapse period" of three years. No systemic warning was given, but increased pain at the injection site was noted in the two injections proceeding the near fatal collapse following the third injection.*

The recorded accidents clearly establish that sodium morrhuate even when carefully given in comparatively small amounts is far from being a harmless compound. It would seem wise to entirely discontinue its use in such cases where the patient after having received a number of injections has a break in the treatment and then returns for further injections. Because such patients are the ones most likely to have a reaction, quinine hydrochloride and urethane or some other sclerosing remedy should be used to continue the treatment. Many of the other preparations seem to cause a little more local discomfort than does sodium morrhuate, but if after further experience they prove to be safer to use, it might be advisable to entirely discontinue the use of sodium morrhuate as a remedy for a condition which generally is not a serious one, hence the patient should not be subjected to any serious risk. We have found quinine hydrochloride and urethane a very excellent remedy for most cases and believe that this preparation might be given preference over sodium

morrhuate in the treatment of varicosities.

Conclusion

1 An increasing number of allergic-like complications are being reported with the use of five per cent sodium morrhuate as a sclerosing agent for the treatment of varicose veins.

2 Allergic-like reactions have occurred with the first injection of five per cent sodium morrhuate.

3 The most severe systemic reactions apparently are in those patients who have had previous injections of five per cent sodium morrhuate and after a variable "rest or lapse period" receive further injections to which they have become sensitized.

4 Reactions may be either cutaneous, systemic or a combination of both, in severity they may vary from slight urticarial skin reaction to states of shock so deep that immediate death is to be feared.

5 Before treating a new case a careful history as regards allergy in the patient or his immediate family or previous varicose vein injections of any kind is exceedingly important.

6 Patients should be asked specifically on their return visits concerning symptoms which may be interpreted as due to acquired sensitivity to the sodium morrhuate, i.e., dizziness and nausea. If such symptoms are elicited the injections should either be discontinued or the sclerosing solution changed.

7 Two cases* are reported in detail in which after a "rest or lapse period" of three months, the patients received three injections with increasing local or systemic reactions. The final reaction in each case was so severe that the patient was in deep coma for several hours and immediate death was feared.

140 E 54 St

References

- 1 Zimmerman, L. M. *JAMA* 102 1216 1914
- 2 Frayer, L. L. and Becker, S. W. *JAMA* 104 997 1935
- 3 Lewis, K. M. *JAMA* 107 1298 1936

*The authors desire to express their gratitude to Dr. A. Wilbur Duryee of the Medical Service in allowing us to publish Case 2. Dr. Duryee informed us also that he has recently seen three other similar cases in the medical ward of another institution of this city.

*Since this paper was submitted for publication, we have had a third case of collapse similar in all essentials to the two herein reported. Likewise a "lapse or rest period" again followed by the use of a single dose of five per cent sodium morrhuate resulted in collapse requiring urgent hospitalization.

LENGTHENING THE SEPTUM MOBILE NASI

A New Plastic Procedure

M WILLIAM MOOTNICK, M D, *New York City*

A thorough perusal of the literature on plastic surgery, fails to reveal an operation to cope with the following condition of a retracted columella. I, therefore, offer this original idea, in the hope that it may afford an outlet to this heretofore undescribed "bugbear" of the Rhinoplastic surgeon

This deformity may manifest itself in two degrees, as shown in Fig 1 and 2, illustrating a not uncommon nasal deformity. This plastic defect is usually seen, as a complication of rhinoplasty (Fig 1), where the nose has been unintentionally overshortened during the course of a plastic operation. Upon suturing the columella in place following this overshortening, find the columella retracted. Thus the nasal tip and the lower margin of the alae hang abnormally low. An attempt to correct this condition by a further shortening of the nasal

tip to the level of the retracted columella, would exaggerate the already existing condition. Fig 2 also illustrates the retracted columella with the alae hanging abnormally low.

The above mentioned conditions present a most unsightly deformity that is not only distasteful to the surgeon, but also to the patient.

It may also be the result of trauma, of abscess of the lower portion of the septum, or it may be a congenital defect.

The main objective, in this procedure, is to bring about a normal cosmetic arrangement of the nasal tip. Normally the columella is slightly lower than the alae, the former making an angle with the upper lip, known as the septo labial angle which should be between 90 and 105°, and the proper assembly of the combined structures should bring about the graceful curve which the nasal tip

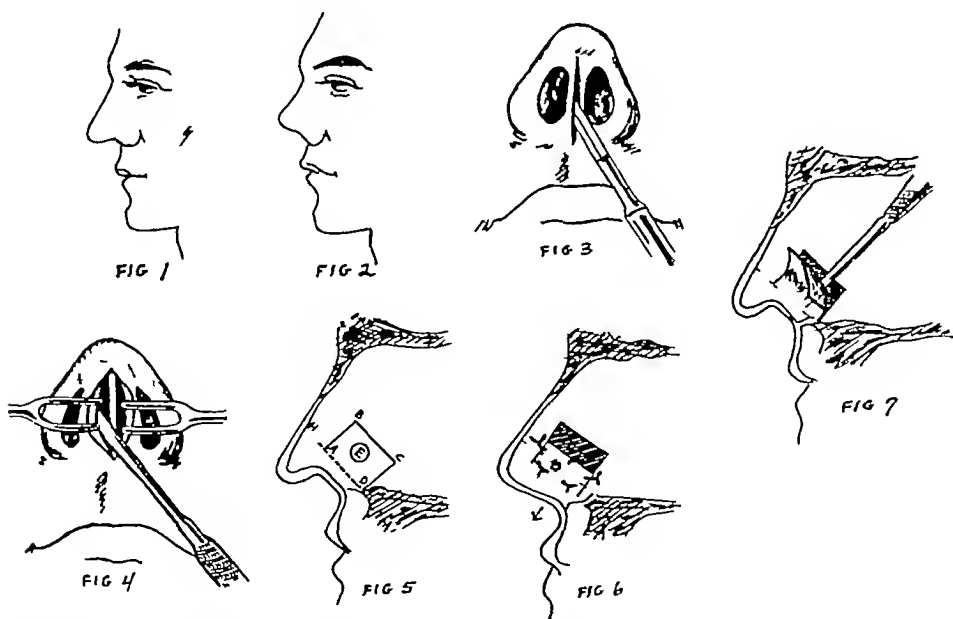


Fig 1—Fig 2—Fig 3 Initial approach incision through columella—Fig 4 Elevating mucoperichondrial flaps. Lower end of septal cartilage exposed.—Fig 5 A B C D The three united incisions. E, Mucoperichondrial flap. H, D, Lower border of the septal cartilage.—Fig 6 F Exposed area of septal cartilage. G Sliding flaps lowered.—Fig 7 Technic of intranasal method. Flaps being undermined downward.

naturally possesses. This can be best accomplished by lowering the columella, which is the essence of this procedure, thus lengthening the septum mobile nasi, between the lower margin of the quadrangular cartilage and the external surface of the columella.

Procedure

An external longitudinal incision is made in the columella (Fig 3) and extended inwards to the lower end of the septal cartilage.

The mucoperichondrial membrane on either side of the quadrangular cartilage is elevated in a fashion not unlike the method in vogue for elevating the flaps in a submucous resection, from before backward (Fig 4). The mucoperichondrial membrane is elevated proximally three cm on one side and two cm on the other side of the quadrangular cartilage, upward to the dorsum of the septum, as required in Fig 2, and to the level of the lower border of the hanging nasal tip in Fig 1, and downward to the nasal floor. This is facilitated by the use of retractors which keep the original incision open, and expose the deeper structures (Fig 4).

The next step is to make two parallel incisions in the mucoperichondrium of the nasal septum by way of the nares, from before backwards, beginning at the lower margin of the septum and proceeding backwards a distance of three cm. Thus, the distance between the two parallel incisions are identical to the portions of the mucoperichondrium undermined (Fig 5).

The two parallel incisions are next united by a third incision, which is vertical and connects their posterior ends, giving the completed incision the appearance of a rectangular minus the anterior line (Fig 5). These three incisions are repeated on the opposite side of the septum, but here the parallel incisions are

only extended as far back as two cm.

The columella is thus liberated and freed of its attachment and may easily be lowered to the desired position. The columella is anchored in position by two mattress sutures at the lower end of the quadrangular cartilage through the septum mobile (Fig 6). Three mattress sutures are placed in the septal membrane flap at the posterior ends of the parallel incisions and through the septal cartilage (Fig 6). The columella incision is closed with interrupted horse-hair sutures.

Upon completion of the operation, an area of septal cartilage, denuded of its mucoperichondrial covering, will be seen on either side of the nasal septum due to the sliding of the previously made membranous flaps downwards, thereby lengthening the septum mobile.

These denuded areas do not occur at the same level on either side of the septum. As it is not desirable to completely deprive the septum of its nutrition, which comes from its perichondrial covering, this is accomplished by undermining the septal flaps two cm on one side of the septum and three cm on the other side. The exposed areas of the septal cartilage heal nicely by granulation followed by smooth scarring (Fig 6).

The operation may also be performed entirely intranasally. If this approach is used, only the three united incisions in the mucoperichondrium on either side of the septum are made, and the flaps are elevated downward from behind forward as far as the lower border of the quadrangular cartilage (Fig 7), on both sides of the septum.

The rest of the procedure is the same as described for the external route. The intranasal method is of value only in abolishing the external columella scar. The procedure, I feel, is greatly facilitated through the external approach, and the subsequent columella scar is nil.

1049 PARK AVE.

The venereal disease control program is "going over the top." If the ethical physicians don't add venereal disease services to their list of regular services, the quacks

and incompetents will be doing the cashing-in while the public pays and suffers.

—Ohio State Med Jour

NOMA

VINCENT I BONAFEDE, M D, *Sonyea*

A case of noma is reported because the condition, though long known, is always interesting both as to cause and course. This infection is also known as cancrum oris and gangrenous ulcerative stomatitis. It may be described as an acute fulminating and progressive gangrenous erosive ulcer involving the oral cavity and contiguous tissues. Its occurrence is rare but it is most commonly seen in undernourished and debilitated individuals as (a) a sequel to infectious diseases, principally measles and typhoid,¹ (b) associated with blood dyscrasias as leukemia² and obscure anemia,³ (c) sequel to focal oral infection following extraction of teeth,⁴ or trauma to the buccal mucosa, (d) sequel to chronic enteritis,⁵ (e) sequel to puerperal infection,⁶ and spontaneously without evidence of any underlying disease.⁷

It affects all age groups but according to Cecil, it is most frequent in children from two to five years of age. Benedict and Berger reported unusual spontaneous cases arising in a newborn child and an infant sixteen months of age respectively, without any clinical evidence of underlying disease. The etiology is not definitely known although many investigators believe it is due to bacterial synergism. Mixed infection is common with *Spirochetes* and the fusiform bacilli evident as the prominent invaders. Hicken⁸ demonstrated experimental and clinical evidence to substantiate the theory of bacterial synergism. The course is usually rapid and, according to Cecil, death intervenes from five to ten days after the onset from some terminal infection as bronchopneumonia, lung abscess, sepsis, etc. Recovery is the exception and then only with horrible unsightly defects. Treatment is significantly inefficacious, the common oxidizing solutions, the arsenicals, various dyes and antiseptics, fuming nitric acid, undiluted formalin, x-ray and radical excision with cautery have all been tried with equally poor results. Excision and cautery appears, nevertheless, to be the single, most effective therapeutic agent, if performed early

Case Report

R. E., a white boy, eighteen years of age, was admitted to Craig Colony on May 11, 1933, for custodial care and treatment for epilepsy. Relevant personal history revealed the onset of generalized convulsions at one year of age and the childhood diseases—measles, mumps, and rickets. On admission he was undernourished and showed poor development. Weight 130 pounds, height 5 feet 9¾ inches. Significant physical findings disclosed a deformity of the chest, apparently due to rickets, and a severe suppurative infection of the gums of long-standing showing deep pockets extending into the alveolar processes. Smears showed numerous *Spirochetes* and fusiform bacilli. The patient responded to treatment with the use of the ordinary oxidizing agents (sodium perborate, hydrogen peroxide), a power spray, and intravenous sulpharsphenamine.

On August 16, he was placed in bed with a reactivated infection of the gums, an ischio-rectal abscess, and loose stools. His progress was steadily downward with de-



Fig 1

hydration, marked loss of weight, and emaciation despite treatment to which he was frequently uncooperative and resistive. Beginning November 13, pustular infections of the right ear, right shoulder, and right arm appeared. On November 27, at 5 00 A M the patient pried four loose teeth out of his mouth with a spoon and the next day the gums about the self-extracted maxillary incisors became swollen, black, and gangrenous. The contiguous buccal mucosa of the upper lip was swollen. By November 29, the gangrene had spread rapidly by direct extension in all directions, involved the hard palate, and perforated the central portion of the upper lip to the outside, producing an antrum in the upper lip. The odor was extremely offensive and pain was significantly absent. The regional lymphatics were not involved. On November 30, the gangrenous ulceration had completely eroded the entire upper lip, the anterior third of the hard palate, and began to destroy the nasal alae, the contiguous tissues of the face about the angles of the mouth, and the anterior third of the tongue. On December 1, the destructive process in-

volved the right central portion of the lower lip and began to perforate through the lower lip. Death occurred exactly five days after onset. (The attached photograph, Fig 1, was postmortem) The temperature and pulse were not marked, the former ranging from 97 to 100° F (axillary), the latter varying from 80 to 108 min. Respirations were from twenty to twenty-four per minute. Smears were loaded with *B fusiformis* and *Spirocheti vincenti*. Other laboratory work was dispensed with. Necropsy was refused.

CRAIG COLONY

References

- 1 Usher and Ross *Canadian Med Ass'n Jour*, p 446, 1931
- Christopher *Minor Surgery*, Saunders, 1933
- Soisa *Polichinico (sez prat)*, 36 1099, 1929
- Goodall *Brit Jour of Child Dis*, 27 319, 1930
- 2 Brown *Int'l J of Orthodontia*, 19 59, 1933
- 3 Cabot Case Records *Boston M & S Journal*, 196 822, 1927
- 4 Davis *U S N Med Bulletin*, 28 372, 1930
- 5 Cecil *Textbook of Medicine*, Saunders, 1930
- 6 Gokhale *Indian Med Gaz*, 66 29, 1931
- 7 Benedict *Arch F Kinderheilk* 91 105, 1930
- 8 Berger *Am J Dis Child Soc Trans*, 33 542, 1927
- 8 Hicken *Arch of Surgery*, 31 253, 1935

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, D R P H, New York City

Editorial Note Under this title will appear short summaries of 'transition cases' from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Marital Longings

Ruth, twenty-six, is married two years with a man eight years her senior. She has never become pregnant, although no anti-conceptional method has been used. He is a writer, engrossed in his job and is mostly overworked and tired.

"He is busy, very busy," she says. "I admire him, because he is learned, well-read and extremely devoted to his work. He is a great man. But I am unhappy. I take no part in his activities. I am not interested in them. He does not desire the sex intercourse, but has it for my sake. It would be better he never had it. It is a torture. He says, 'Let me sleep a while, I am so tired, but you keep awake.' When he opens his eyes he begins to bother me, soon to give up and get very angry, probably at himself. Sometimes he is so funny, I cannot help laughing and when I go to hear him lecture, which I rarely do, I must laugh as I think of his antics in bed. I blush and run out of the hall from among his audience and I laugh outside. It's terrible. I wish I were

not married. I'd never give a thought to such things. But now I keep on thinking about them. In the middle of the day, when I am alone, I have all sorts of visions. I stretch out my arms and I embrace the void. I sit down and wait silently, without the least motion, so as not to disturb the dream, the expectation of a caress. A breeze passing lightly over my arm—like this—thrills me. Because he never pets me, never embraces, never kisses. He is a great man, but is it my fault?"

At the examination there is no sign of her ever having had a real contact. She is virginal. It seems she has only been tortured, tantalized. Husband does not understand her at all. He believes she is angry or crying out of sheer "foolishness." "Women's eyes are in a wet place, says a proverb in my country," he explains.

The result? Moments of rage, suicidal intentions which become more and more threatening, inactivity, inability to do her work, alternating with brooding, depressive days in which she refuses to eat, to dress or to go out of bed.

The remedy? Several talks with him explaining the true situation which she would never reveal to him, making him change his program of work, opening his eyes to a possible danger, and treatment of his partial impotence. On the other hand, making her understand that she must be patient

with him, she must avoid humiliating and discouraging him. Both are advised to sleep in separate beds in ordinary times.

She is asked to return to the occupation she had as a girl, so as not to be idle. All this effects a cure within one year.

A Useful Experiment

A married woman with four children, still good looking and only thirty-one years of age, was sent by her husband on vacation. She took only one child along, the youngest, and stayed in a popular summer resort for a month. Originally she refused to go altogether. She was a drudge and feared the furniture would be spoiled in her absence and somebody, not a guest, might go into the parlor. She agreed to be away two weeks, but her intention was to come back within a few days. However, while there, something strange happened that made her ask her husband to allow her another week and then another week. Most of the vacationists were women, but there were a few men also and one of them, although over fifty and a grandfather, made love to her. That was something new to this serious, overworked, matter-of-fact woman. She had heard about such events, but relegated them to novels and even there she thought they referred to young, unmarried persons only. Her husband had never pronounced the word "love"—not even between their betrothal and wedding. To be sure, her seducer was a regular Don Juan and few women resisted him. But at the time our heroine was so amazed and thrilled as to be blind and deaf to anything except to the divine talk, and charming and delightful gestures of this poetical and superbly mannered gentleman who deigned to take her into his confidence and speak to her in such a beautiful way about his heartaches. She was dazed and in her impatience to walk with him late into the night on the lonely forest paths scarcely lit by mysterious moonlight patches, she lost her sleep and forgot to eat. She was a fairy hardly touching the ground and living on some higher spheres.

But what a rude awakening! What a plunge into the common-place home of her prosaic husband at her return to the city! She tried to overcome her feelings but could not. After she had rubbed her eyes, she saw only one thing: her guilt. Then she fell into a bottomless depression and wept day and night, without being able to gather enough will-power to do the smallest part of her work. She felt low and filthy while her husband's equanimity made him grow to the proportions of an angel. How could she face him? How will she ever deserve him?

That was the condition in which she came to this examiner. Persevering interrogation brought out, not only the foregoing description of her short blissful deliverance from her everyday life, with many unmentionable details, but also the dreary facts of her married years.

Her husband was a "nice man," a "good provider," although mean enough not to put into her hands more money than absolutely necessary. The small house which he had acquired and in which they were living, was in his own name. He regarded her as an immature child and never told her anything about his plans or business.

"He never trusts me with anything, but I always have what I need," she said. "He never showed any affection to me or to the children. He is probably the most perfect man, exhibiting neither anger nor kindness. His face is like a mask, it rarely changes. I am sure he cannot be swayed into sinning like myself. He is superhuman. He speaks little and says what he ought to. At the best joke, when everybody sheds tears from laughter, he has but the faintest smile. His sex relations are satisfactory, but there is neither more nor less than that. He just has intercourse, there is no caressing."

This formidable husband was summoned to our office and we had a heart-to-heart talk, during which the entire situation was explained to him. When he heard of his wife's *faux-pas* and the contrast between the love-faker's miraculous, enticing, and transforming powers and his own plain, direct, but dry devices, he was dumbfounded—and he understood. Nay, he actually cried and admitted that he loved his wife, although he had never told her and had never thought that love was more than mere possession.

That evening he brought her a present and kissed her, though without words. From then on he wooed her constantly in his own dumb way. He only informed her that he knew about her adventure and that he "pardoned" her. She had to go through this superficial love-making in the country resort in order to appreciate his deeper partnership, he said, and he promised to treat her differently in the future.

Incidentally, she was cured and became happier than she had ever been.

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References

- 1 Usher and Ross *Canadian Med Ass'n Jour*, p. 446, 1931
- Christopher *Minor Surgery*, Saunders, 1933
- Sonsa *Polichinco (sez prat)*, 36 1099, 1929
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- 2 Brown *Int J of Orthodontia*, 19 59, 1933
- 3 Cabot Case Records *Boston M & S Journal*, 196 822, 1927
- 4 Davis *U S N Med Bulletin*, 28 372, 1930
- 5 Cecil *Textbook of Medicine*, Saunders 1930
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usurping prerogatives without which private practice cannot exist

There are other common grounds besides similar troubles. The physician and lawyer must work together in a wide variety of cases. A better understanding on the part of each of the other's problems and the proper approach to them would facilitate and strengthen inter-professional relations.

When it comes to legislation, the legal profession has opportunities which medicine does not enjoy. Many lawyers hold legislative seats. The physician-legislator is a rarity. This spring legal opposition helped to kill a physicians' lien act, where cooperation between the two professions could have eliminated objectionable features and secured the enactment of a just, wisely framed law.

There are many ways in which medicine and the law, through closer collaboration, could be of service to the public and each other. A number of county medical societies try to further this end by holding at least one meeting a year in conjunction with their local bar.

Determining Activity of Infectious Foci

The relationship of certain systemic disorders to foci of infection is an established fact. Nevertheless, in an individual instance it is sometimes extremely difficult to detect the focus and still more difficult to determine whether or not it is the active cause. Especially in the vicinity of the dental roots, areas of infection may be present without having any connection with the rest of the system. These would therefore not act as the source of a general disease.

To differentiate between an active and an inactive dental focus has hitherto not been possible since neither clinical nor roentgenological examination affords such qualitative differentiation. Gutzeit and Küchlin¹ propose a means whereby the

recognition of an offending focus about the dental roots becomes possible. Small electrodes (two to three cm.) are applied on the buccal and lingual sides of the tooth and the roots are subjected to short waves. Where the focus is active, the sedimentation rate of the erythrocytes is accelerated from two to four hours. Such a finding is not present when an inactive focus is irradiated with short waves.

If verified by further study, this will go far toward preventing the blind removal of suspected foci and eliminate unnecessary surgery to the dental apparatus. Furthermore, if this method is applicable to infections about the teeth, there is reason to believe that it should work equally as well with the tonsils, sinuses, gall-bladder, etc. The positive recognition of active foci would overcome the principle objection of the more cautious physician against radical removal of foci of infection.

Estrogenic Therapy of Acne

The relationship of acne vulgaris to the onset of puberty in the preponderance of cases makes it apparent that at least one cause of this condition is an endocrine imbalance. More than two-thirds of all cases of acne had their onset between the twelfth and fourteenth year. Sixty per cent of the females studied showed some aberration of menstrual function.¹

Rosenthal² estimated the estrogenic substance in the blood and urine of women suffering from acne vulgaris and in ninety-three per cent of cases found this substance to be absent or greatly diminished in the blood. A similar result was obtained in the urine estimations in eighty-two per cent. From this, he concluded that an abnormality in the formation or utilization of the sex hormones entered into the pathogenesis of acne.

¹ Gutzeit, K. and Küchlin, W. *Münch Med Wochenschr.* 84 961, 1937

¹ Lawrence, C. L. *J.A.M.A.* 106 983 1936
² Rosenthal T. J. *Lancet* 56 496 1936 and N. Y. *State J. Med.* 37 244 1937

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EDITORIALS

Responsibility for Public Health

In a recent address before a Conference of Health Officers and Public Health Nurses, Dr Charles H Goodrich, President of the Medical Society of the State of New York, accepted for the profession the slogan, "Every Physician a Deputy Health Officer." He was free to accept this challenge for, by ancient tradition, physicians have always considered themselves responsible for the public health.

Unfortunately, many principles long accepted in theory lag in the translation into fact. The periodic health examination is a striking example. For two decades and more, the prophylactic examination has enjoyed universal approval. Nevertheless, few patients demand this service, and let us admit it, few physicians have troubled to perfect themselves in the technic of the complete preventive health study.

There is little doubt that more intensive cooperation between health departments and the private practitioner would be beneficial to community finances as well as community health. Unnecessary sickness levies a high economic toll on the nation each year.

For the utmost in such collaboration to

be achieved, public health departments must show great respect for the economic rights of the profession. Every community has indeed a vital stake in the prosperity of its physicians, as Dr Frederic E Elhott has declared.

Under the Vaughn plan, the city of Detroit has come closer than any other American community to realizing the slogan, "Every Physician a Deputy Health Officer." Its increased outlay for professional services has paid dividends in health and money. President Goodrich makes a practical approach to an important problem when he suggests that representatives of the New York State Health Department and profession make a joint study of the Detroit system on the scene.

Medicine and the Law

In many respects the legal profession today faces a situation as critical as that confronting medicine. Like physicians, lawyers see the ethics and economic stability of their profession undermined by overcrowding in urban areas and undesirable competitive practices which follow in its wake. Also like physicians, they see governmental and commercial agencies invading their domain and

THE MEDICAL GRIEVANCE COMMITTEE

1926-1937

HAROLD RYPINS, M D, F A C P, *Albany*
Executive Secretary

Unique in its organization, powers, and functions, the Medical Grievance Committee of the State of New York is the only statutory, quasi-judicial tribunal created solely to hear and determine charges against licensed physicians and to recommend discipline in cases of guilt. In all other states, disciplinary action is lodged in the State Board of Medical Examiners. Under the New York law, examining for medical licensure and the disciplining licensed practitioners are completely separated, examinations are conducted by the State Board of Medical Examiners and disciplinary proceedings by the Medical Grievance Committee. Both licensure and revocation of licenses are vested in the Board of Regents.

The members of the Grievance Committee, ten in number, are appointed by the Board of Regents for five-year terms—four members are appointed from nominations made by the Medical Society of the State of New York, two members from nominations by the New York State Homeopathic Society, one member from nominations by the New York State Osteopathic Society, and three members of conspicuous professional standing are appointed by the Regents upon their own nomination. The Committee serves without compensation. The members of the Committee are

Orrin Sage Wightman, M D, *Chairman*
Arthur B Van Loon, M D, *Secretary*
Frederick H. Flaherty, M D
Austin G Morris, M D
Roy Upham, M D
Martin B Tinker, M D
Moses Keschner, M D
Walter A. Merkley, D O
J Richard Kevin, M D
Vincent P Mazzola, M D

The Secretary of the State Board of Medical Examiners is the Executive Secretary of the Grievance Committee.

The members of the Committee are public officers. They pass upon the sufficiency of charges, hear evidence, rule on objections to testimony, pass on motions, and make decisions—just as in a court of law.

They have legal authority to administer oaths, to subpoena, and to make rules and regulations for the conduct of their business.

To fully comprehend the work and limitations of the Grievance Committee, it is necessary to understand its specific statutory powers and its administrative relationships with (1) The Board of Regents, (2) The Assistant Attorneys-General, and (3) The Secretary of the Board of Medical Examiners, which may be compared to the relations between (1) A trial court, (2) An appellate or reviewing court, (3) The district attorney, and (4) The police commissioner.

As a trial court the Grievance Committee exercises two distinct jurisdictions. In the first instance, the Committee, after charges are duly preferred, determines whether or not the facts alleged are sufficient to warrant a statutory trial, termed by the Committee a "formal" trial. Frequently a preliminary or informal hearing is held either by the Committee or a subcommittee to pass upon the sufficiency *prima facie* of the charges or a complaint or evidence supporting same. This is similar to a hearing before a Magistrate to determine whether or not the facts produced against a defendant are *prima facie* sufficient to constitute a crime and to warrant holding the defendant for further action. If the Committee determines that the facts charged warrant a formal trial, the charges are then referred for trial to a subcommittee. Thus, the Committee combines within itself two quasi-judicial functions which in criminal proceedings are distinct, namely, those of a Magistrate and those of a trial Court.

The subcommittees, consisting of three members or more of the Committee, are appointed by the Chairman. At least one member of a subcommittee designated to hear charges must represent the same school of practice as the accused physician. The subcommittee hearing at a trial of formal charges is always constituted differently from the subcommittee which has previously determined that a trial on charges is necessary.

Based on findings such as these, Lawrence supplemented the usual treatment of this skin disorder by the administration of Antuitrin-S and obtained a maximum benefit in from twelve to sixteen weeks. Boys responded equally as well as girls did. The usual dosage is one to two c.c. every other day for the early weeks of treatment, and should then be decreased as the improvement becomes evident. Recurrences of acne vulgaris, it would seem respond equally well when estrogenic therapy is resumed. This medication should be supplemented by the standard local measures employed for the superimposed infection present in acne.

CURRENT COMMENT

"REGIMENTATION, STANDARDIZATION et al, is the revered Juggernaut before and beneath which all true Americanism must be crushed!"

"Health of the country has suddenly become a paramount issue. Hunger, seemingly, has not. Yet it was lack of bread that sent the last of the Bourbons to the tumbril. Pre-revolutionary France never carried the load of tax-eaters borne by tax-paying martyrs as does the United States today."

"May we remind the profession that 'there are none so deaf as those that will not hear, and none so blind as those who will not see?'"—Strong words and a reminder from the editors of the *Illinois Medical Journal* of August 1937.

"THE ADMINISTRATION OF MEDICAL welfare service is at once the most neglected and the most vitally important problem facing organized medicine today. Leaders of the profession have spent a great deal of time and energy in speculating, viewing with alarm, and wringing their hands over the alleged imminence of some undefined phenomenon called 'state medicine,' as though it were a system as yet unborn which will appear some fine morning at our window full grown overnight, after the manner of Jack's beanstalk."

"The naivete of this conception, and the functional myopia it has produced in the

face of the real and growing presence of state medicine has been the subject of editorial comment here and there,—but while the anxious skippers of many medical societies have been apprehensively scanning the horizon for the battle fleets of state medicine, a whole school of submarines has popped up, one by one just off the bow, and for several years they have been busily pumping torpedoes into the ship—not without effect.

"These submarines of whose attacks we have been too proud or too preoccupied to take account, are of course the precedents and policies of medical welfare administration, local, state and national, and when that which we shall be able to recognize as state medicine comes steaming over the horizon, its advance guard of submarines will have so riddled our proud ship with compromises and concessions that one clean hit from the big fellow may sink us."—From a recent issue of the *Westchester Medical Bulletin*.

"LOW-COST HOUSING UNDER this bill will be impossible in any large city in America"—A regretful but perhaps true comment on the Wagner-Steagall Slum Clearance Bill by Langdon W. Post, chairman of the New York City Housing Authority, and one of the original bill's chief backers.

"IT IS ABSURD FOR THINKING WOMEN to sit silently by while doctors and legislators, priests and preachers fuss and squabble over a law which has primarily to do with us"—A female of the species speaks her mind on the question of birth control, and is quoted in *The Digest* under date of August 14.

"THE THREAT OF SOCIALIZATION has been effective, too, in awakening the physician's sense of social responsibility. Conversely, it has stimulated the interest of the public in medical problems."

"Thus, in these and other ways, the road has been paved for a better understanding between the doctor and doctored in the future."

"Who can deny the adage that blessings often come in disguise?"—One way of looking at it, as voiced by *Medical Economics*, August 1937.

The undertaker's very smart,
He'll never need the dole,
For he gets rich when other folks
Are going in the hole. —Exchange

The statute specifies and limits the causes for which a physician may be disciplined as follows

(a) That the physician is guilty of fraud or deceit in the practice of medicine or in his admission to the practice of medicine

(b) That a physician has been convicted in a court of competent jurisdiction, either within or without this state, of a crime or misdemeanor, or

(c) That a physician is an habitual drunkard, or addicted to the use of morphine, cocaine or other drugs having similar effect, or has become insane, or

(d) That a physician is guilty of untrue, fraudulent, misleading or deceptive advertising, or advertising that he can cure or treat disease by a secret method, procedure, treatment or medicine or that he can treat, operate, and prescribe for any human condition by a method, means or procedure which he refuses to divulge upon demand to the committee on grievances, or

(e) That a physician did undertake or engage in any manner or by any ways or means whatsoever to procure or to perform any criminal abortion or to violate section eleven hundred and forty-two of the penal law

In addition, the statute provides that in the case of a physician convicted of a felony, the Board of Regents may revoke the physician's license. In such cases a hearing before the Grievance Committee is not necessary as the effect of a felony conviction of a physician is to revoke his license to practice medicine, should he practice medicine after conviction of a felony, he is guilty of a misdemeanor

The nature of the 591 complaints against licensed physicians for the period 1926-37 was as follows

Improper or misleading advertising	102
Performing or undertaking to perform abortions	69
Aiding and abetting an unlicensed practitioner	53
Ambulance chasing	16
Fraud and deceit	58
Malpractice	93
Unethical conduct	138
Narcotic violation	12
Insanity	1
Arbitration	3
Felony conviction	18
Misdemeanor conviction	2
Miscellaneous	26
Total	591

In view of the definite and strict limitations in the type of misconduct which the

law permits the Grievance Committee to try, the Committee has received and refused to hear, on the grounds of non-jurisdiction the following complaints

Malpractice and Negligence	79
Unethical conduct	106
Advertising (non-fraudulent)	72
Miscellaneous	19
Total	276

Of the five hundred and ninety-one complaints against physicians, three hundred and twenty-six could not be entertained for the reason that either (a) the complaint did not come within the statutory purview of the Committee, or (b) sufficient legal evidence was not available. One hundred and seventy cases were disposed of after informal hearing by subcommittees and thirteen after formal trials, where the evidence did not warrant disciplinary action. Fifty-three physicians have been found guilty by the Committee, resulting in the revocation by the Board of Regents of the licenses of thirty-two physicians, the suspension for periods varying from six months to two years of the licenses of nine physicians, and formal reprimand and censure of eleven physicians. In only one case did the Board of Regents reject the determination of the Grievance Committee.

The nature of the charges for which fifty-two physicians had their licenses revoked or suspended or were formally censured and reprimanded, as aforesaid is as follows

	Revoked	Suspended	Censured and Reprimanded
Misleading Advertising			1
Abortion	5	4	1
Aiding and Abetting	2	4	6
Fraud and Deceit	3	1	3
Narcotic Violation	3		
Insanity	1		
Felony Conviction	18		
	32	9	11

While the primary function of the Grievance Committee is to protect the public from unscrupulous and dishonest practitioners of medicine and by their elimination to raise the standards of practice in the medical profession, it has also served to protect a large number of ethical practitioners from unfounded litigation with its

On both a preliminary hearing and a formal trial, the accused physician has the right to appear with counsel and to cross-examine witnesses. A stenographic record of the testimony is kept and is transcribed at the conclusion of each hearing and trial. The Committee is not bound by the laws of evidence in the conduct of its proceedings, but its determination must be founded on sufficient legal evidence. Strict rules of procedure need not be followed.

From this recital, it appears that the Committee's function is fundamentally that of a trial court—a fact-finding tribunal—with power to recommend the discipline to be imposed. The law does not contemplate that it serve as an investigative commission or a prosecuting agency to secure evidence of misconduct on the part of physicians. It is not the duty of the Committee to prefer charges.

Under the statute, any person, corporation or public officer may prefer charges. The Department of Education may initiate proceedings in any case. In practice, complaints against physicians are brought before the Committee by letters, affidavits or charges filed with the Executive Secretary by aggrieved citizens, practicing physicians, district attorneys, police and other public officers. If the complaint clearly falls beyond the statutory powers of the Committee, to be discussed directly, the Executive Secretary, after consultation with the Assistant Attorney-General in charge, advises the complainant that the Grievance Committee has no jurisdiction over the complaint. Such action of the Executive Secretary is reported to the Committee for its approval. If the facts come within the statutory jurisdiction of the Committee, but the evidence is insufficient upon which to base a disciplinary proceeding, which is frequently the case, the Secretary of the Board of Medical Examiners, acting for the Education Department pursuant to its statutory power, rather than for the Grievance Committee, causes an independent investigation to be made through the staff of inspectors and special investigators employed by the Education Department for securing evidence of the illegal practice of medicine. In this capacity the Secretary carries out investigative functions and procedures comparable to that of a police commissioner. Like the Grievance Committee, he exercises dual functions which are en-

tirely distinct—*firstly*, in investigating and securing evidence of misconduct, *secondly*, as an executive officer appointed by the Committee.

Legal guidance is received by the Executive Secretary from two assistant attorneys-general, specially assigned by the Attorney-General to the Education Department. The Assistant Attorney-General attends all hearings and trials, presents the evidence in support of complaints or charges, cross-examines witnesses for the defense, and acts as counsel to the Committee.

When a physician has been found guilty of charges after trial, the subcommittee makes a report of its findings, determination, and recommendation to the full Grievance Committee. On the receipt of the report of the subcommittee, the Committee reviews the entire record. Only in the event that the Committee *unanimously* determines that the physician is guilty of the charges on their merits, may the determination of the Committee be reported to and acted upon by the Board of Regents. If the physician is unanimously found guilty by the Committee, the record, findings, determination, and recommendation of the Committee are forwarded to the Board of Regents who, after due hearing may " in their discretion execute an order accepting or modifying such determination of said committee.

" The theory of the law that the Board of Regents shall take final action in such matters is that the Regents grant to physicians power and authority, as evidenced by licenses, to practice medicine, and the Board that licenses is the Board to determine what action should be taken against a physician for violating the statutory conditions under which licenses were issued.

Should a physician so desire he may apply for a judicial review of the action of the Board of Regents in revoking or suspending his license or in censuring him. Such review may be had by the Appellate Division of the Supreme Court, Third Department, and the physician may apply for a stay of the execution of the order of the Regents on notice to the Attorney-General.

If the accused physician is found not guilty by the Committee, a dismissal of the charge is ordered and he may be relieved of any possible odium which may attach by reason of the charges against him. Public exoneration may be granted if requested by the accused.

PNEUMONIA CONTROL PROGRAM

Post-Graduate Educational Institutes in Pneumonia for the General Practitioner

The New York State Medical Society in collaboration with the Bureau of Pneumonia Control of the New York State Department of Health and in cooperation with some of the large medical school hospitals of the State is sponsoring a series of one-day institutes on "The Diagnosis and Treatment of Pneumonia" with special emphasis on serum therapy. These institutes will be held in the five academic centers of the State Albany, Buffalo, New York City, Rochester, and Syracuse, and will accommodate physicians in the counties surrounding these cities. The educational facilities of these institutes will be extended to the general practitioner who is desirous of learning more in detail about the recent advances in the diagnosis and treatment of pneumonia and who is anxious to familiarize himself with the exact technic of serum therapy.

Each institute will accommodate fifty physicians in the counties surrounding the location of the institute. The number of physicians accepted from each county will depend on the medical population of that county. Applications will be accepted in the order in which they are received, with the exception that, an attempt will be made to distribute the quota evenly throughout the individual county whenever possible. It is therefore necessary that those who are interested send in their applications early, before the quota of their county is exhausted.

No fee will be charged to those attending the institutes. The New York State Department of Health will reimburse traveling and maintenance expenses of those attending up to a maximum limit of \$20 per physician.

The institutes will consist of the following

1 Talks by outstanding authorities on pneumonia, i.e. Doctors Bullowa, Cecil or Cole, on various aspects of the diagnosis and treatment of the disease with special reference to serum therapy

2 Small group demonstrations on blood donors of the actual technic used in the administration of serum, the taking of blood cultures and the performance of sensitivity tests

3 Lecture and demonstration on the use of oxygen.

4 Informal discussions with the Speakers and other authoritative physicians regarding individual problems

5 Ward rounds by the Speakers on clinical material if cases are available at the time and place of the Institute

6 Sound moving-pictures illustrative of the technical aspects of serum treatment and nursing care in the home will also be shown.

The final schedule of the institutes and the place of meeting of each will be published in the next issue of the JOURNAL. A tentative schedule of the institutes with the counties served by each follows

Syracuse Institute, October 12

St Lawrence	Lewis	Onondaga	Broome
Herkimer	Jefferson	Cortland	Cayuga
Oneida	Oswego	Chenango	Madison

Rochester Institute, October 19

Wayne	Seneca	Schuyler	Tompkins
Tioga	Steuben	Ontario	Monroe
Livingston	Alleghany	Chemung	Yates

Buffalo Institute, October 25

Orleans	Genesee	Cattaraugus	Niagara
Chautauqua	Erie	Wyoming	

Albany Institute, November 9

Columbia	Albany	Warren
Schoharie	Saratoga	Hamilton
Schenectady	Washington	Franklin
Montgomery	Clinton	Otsego
Essex	Delaware	Fulton
Greene	Rensselaer	

New York City Institute, November 23

Suffolk	Nassau	Westchester
Rockland	Orange	Dutchess
Putnam	Ulster	Sullivan

Applications are to be sent to Dr Thomas P Farmer, Chairman of the Council Committee on Medical Education of the New York State Medical Society, 608 E Genesee St, Syracuse

Elmer's Mother—Doctor, I suppose you will be getting a good fee for attending little James Robey—the family are so rich?
Doctor—Why do you ask?

Elmer's Mother—Well, I hope when you send us your next bill you'll bear in mind that it was our Elmer that throwed the brick that hit James—*Pathfinder Magazine*

resultant cost, irreparable damage, and unpleasant publicity

The Committee, through its subcommittees, has heard informally the facts in a large number of cases involving negligence or malpractice on the part of reputable physicians. These include such cases as unavoidable deaths from delay in the giving of diphtheria antitoxin, late mastoidectomy, incurable cancer, etc. In these cases, the complainant is given opportunity to make a full and complete statement of his complaint and the physician is also given an opportunity to reply. If, in the opinion of the subcommittee, the facts indicate that the physician has acted properly, the matter is explained in great detail to the complainant from the medical viewpoint. So far as can be ascertained, none of these cases has subsequently appeared in the civil courts, thus saving many physicians igno-

many, waste of time and money in defending unfounded law suits based on alleged negligence and malpractice

The Committee has been of great benefit to both the public and the medical profession. It has eliminated from practice physicians guilty of reprehensible conduct. It has kept on the straight and narrow path physicians inclined to wander therefrom by reason of financial stress. It has raised the standards of professional practice. It has given protection to a large number of ethical practitioners improperly accused of misconduct. In short, in its eleven years of constant activity, at great sacrifice to the members' professional practice, without remuneration, the Committee has gained an enviable reputation for integrity, efficiency, and expedition. There are indications that similar activity will be imitated shortly in several other states

DISTRICT BRANCH MEETINGS

The Annual Meetings in 1937 will be held this fall on the following schedule

Sept	21	Sixth District Branch	at Owego
"	22	Seventh " "	" Geneva
"	23	Fifth " "	" Lowville
"	30	Third " "	" Kingston
Oct.	1-2	Fourth " "	" Glens Falls
"	5	First " "	" New York City
"	7	Eighth " "	" Olean
Nov	17	Second " "	" Garden City

INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION

The International Assembly of the Inter-State Postgraduate Medical Association of North America, under the presidency of Dr John F Erdmann of New York City, will be held in the beautiful new public auditorium of St Louis, Mo., October 18-22, with pre-assembly clinics on October 16 and post-assembly clinics October 23 in the hospitals of St. Louis

The aim of the program committee, with Dr George Crile as chairman, is to provide for the medical profession of North America an intensive postgraduate course covering the various branches of medical science. The program has been carefully arranged to meet the demands of the gen-

eral practitioner, as well as the specialist. Extreme care has been given in the selection of the contributors and the subjects of their contributions

The St. Louis Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly

A most hearty invitation is extended to all members of the profession who are in good standing in their State or Provincial Societies to be present. A registration fee of \$500 will admit each member to all the scientific and clinical sessions

For further information, write Dr W B Peck, Managing-Director, Freeport, Ill

A bill is before the Colorado legislature providing for sterilization of all defendants who plead insanity and gain their point

when charged with murder or sex crimes. It looks good to this editor.—*Nebr State Med Jour*

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CONNECTICUT CLINICAL CONGRESS

The annual Clinical Congress of The Connecticut State Medical Society, which was attended last year by 633 physicians from ten states, will be held this year in New Haven on Tuesday, Wednesday, and Thursday, September 21, 22, 23. The registration fee for the entire Congress will be \$2.00. The morning sessions, beginning at 9:30, will be held in the auditorium of the Sterling Law Buildings. The afternoon and evening sessions, beginning at 2:15 and 8:15 respectively, will be held in the buildings of the New Haven Hospital and the Yale School of Medicine. The evening meetings are section meetings which are open to all members of the Congress.

On Tuesday morning the President of the State Medical Society, Dr. Charles H. Turkington of Litchfield will preside. Dr. Francis C. Grant of Philadelphia will speak on "The Treatment of Cranial Trauma", Dr. J. E. Moore of Baltimore will speak on "The Treatment of Early Syphilis", Dr. Robert H. Aldrich of Boston will speak on "The Treatment of Burns with a Compound of Anilin Dyes" and Dr. Frederick C. Irving of Boston will speak on "The Place of Cesarean Section". The afternoon sessions will begin with bedside clinics by the speakers of the morning. Dr. Grant will present a case of Major Trigeminal Neuralgia, Dr. Moore a case of Uncomplicated Syphilitic Aortitis and Dr. Aldrich a case of Extensive Burns. Following this, questions pertinent to the papers read in the morning will be discussed at Panel Discussions. Dr. William J. German of New Haven will preside at the "Symposium on the Treatment of Cranial Trauma," Dr. Paul W. Vestal of New Haven at the "Symposium on the Treatment of Burns" and Dr. Stanley B. Weld of Hartford at the "Symposium on Cesarean Section". The new talking motion picture on Syphilis produced under the auspices of the United States Public Health Service and the American Medical Association will be shown in place of a symposium on Syphilis. In the evening the section on Dermatology and Syphilology, with Dr. E. Myles Standish of Hartford presiding, will hear Dr. George M. MacKee of New York speak on Precanceroses, and the Connecticut Public Health Association with Dr. Edward J. Godfrey of Waterbury presiding, will hear Dr. Robert P. Knapp of Manchester speak on "Progress of Industrial Medicine." The Connecticut Medical Examiners Association will also meet that evening with Dr. Henry N. Costello

of Hartford presiding. The program for that meeting has not yet been completed.

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On Thursday morning Dr. Hugh B. Campbell of Norwich will preside. Dr. Oskar Diethelm of New York will speak on "Treatment of Psychoneurotic Disorders", Dr. Arthur Steindler of Iowa City will speak on "Fracture Deformities of the Upper Extremities—Wrist and Forearm," Dr. Claude S. Beck of Cleveland will speak on the "Treatment of Coronary Sclerosis and Angina Pectoris by Grafting a New Blood

Supply to the Heart" and Dr. Warfield T. Longcope of Baltimore on "Some Problems in Relation to Bright's Disease." In the afternoon Dr. Beck will show a motion picture showing the Treatment of Cardiac Compression, Dr. Longcope will present a case of Acute Nephritis and Dr. Steindler a case of Low Back Pain. At the symposium on Psychiatry—Anxiety Conditions, Dr. Eugen Kahn of New Haven will preside, Dr. Robert J. Cook of New Haven will preside at the symposium on Fracture Deformity, Dr. Louis H. Nahum of New Haven will preside at the symposium on Coronary Artery Disease and Dr. Milton C. Winternitz of New Haven will preside at the symposium on Bright's Disease. Following the symposium on Fracture Deformity, Dr. Robert M. Yergason of Hartford will demonstrate Emergency Fracture Splints of the Connecticut Fracture Committee, A.C.S. In the evening, the section on Orthopedic Surgery with Dr. Merrill K. Linsay of New Haven presiding will hear Dr. Arthur Steindler of Iowa City speak on the "State Program for Crippled

Children under the Social Security Act." The program for the meeting of the Section on Neurology and Psychiatry at which Dr. Charles T. LaMoure of Mansfield Depot will preside has not yet been completed.

The papers read before the Congress or complete abstracts of them will be published in subsequent issues of the *Journal of the Connecticut State Medical Society*.

On Tuesday and Wednesday afternoons members of the Congress will meet for a social hour at the New Haven Medical Association.

Section dinners will take place on the evening of the meeting of the respective sections.

The Women's Medical Society of Connecticut will hold a luncheon meeting in conjunction with the Congress. All women in medicine will be welcome.

Complete program and registration card can be obtained from the Chairman of the Committee on Publicity and Registration, Dr. Maurice J. Strauss, 41 Trumbull Street, New Haven Conn.

POLICE CHIEFS RAP LAY CORONERS

A recommendation that New York State's county coroners be supplanted by medical examiners—who must be licensed and experienced physicians—was unanimously adopted by the New York Association of Police Chiefs, on July 29.

The resolution asking the Legislature to abolish the office of coroner was proposed by Chief Inspector Albert B. Moore of the New York State Police at the closing session of a three day convention of police heads.

Inspector Moore pointed out that coroners in many counties are laymen, not qualified to conduct autopsies or properly

to advise police in the solution of crimes. There is danger, he declared, that such unskilled officials may handicap rather than assist the ends of justice.

The medical examiner system, he pointed out, already is in effect in New York City, Westchester and other counties.

The police chiefs also went on record in favor of a State law requiring immediate medical examination of persons arrested on suspicion of drunken driving. This measure, likewise introduced by Inspector Moore, demanded that authorities be enabled to "take proper steps to protect the people, instead of drunken drivers."

IN TIME OF PEACE PREPARE FOR WAR

The next annual inactive duty training period for medical reserve officers of the Army and the Navy will be held in Rochester, Minnesota, at the Mayo Clinic under the military supervision of the Surgeon of the Seventh Corps Area (Army) and the Surgeon of the Ninth Naval District (Navy) from October 3 to 16, inclusive.

The morning hours are devoted entirely to professional training given by the various departments or sections of the clinic at its several hospitals and institutions. The afternoon hours are devoted to lectures on professional subjects or military medicine.

The evening hours are given to lectures by distinguished visitors and the presentation of medico-military subjects.

The meeting is given for reserve officers of the Army and the Navy, and due military credits are given for attendance.

Enrollment is open to all Army and Navy reservists of the Medical Departments in good standing. Applications should be submitted to the Surgeon of the Seventh Corps Area, Omaha, Neb., or to the Surgeon of the Ninth Naval District, Great Lakes, Ill. Enrollment is limited to two hundred.

CONNECTICUT CLINICAL CONGRESS

The annual Clinical Congress of The Connecticut State Medical Society, which was attended last year by 633 physicians from ten states, will be held this year in New Haven on Tuesday, Wednesday, and Thursday, September 21, 22, 23. The registration fee for the entire Congress will be \$2.00. The morning sessions, beginning at 9:30, will be held in the auditorium of the Sterling Law Buildings. The afternoon and evening sessions, beginning at 2:15 and 8:15 respectively, will be held in the buildings of the New Haven Hospital and the Yale School of Medicine. The evening meetings are section meetings which are open to all members of the Congress.

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An Outbreak of Typhoid Fever in Schenectady

On Memorial Day a group of thirty-one or more persons, members of a local organization in Schenectady, met to partake of refreshments at the close of Memorial Day exercises. Most of the various articles of food which comprised the luncheon had been prepared by members of the organization at their homes and were served from the original containers, serving spoons being placed in the dishes.

Of the thirty-one persons known to have

been present nine have developed clinical typhoid fever and one of these has died. The date of onset of illness of the first case was reported as June 5.

Epidemiological data thus far obtained point either to potato or macaroni salad as the vehicle of infection. Further investigation is being carried on, especially with a view to discovering a possible typhoid carrier as the probable source of infection.

—*Health News*, July 19, 1937

An Outbreak of Smallpox

An outbreak of smallpox comprising eleven cases, ten in Niagara Falls and one in the Town of Niagara, Niagara county, was discovered on August 6. On that date the health officer was requested by a local physician to examine a patient from the town of Niagara, suspected of having smallpox. The health officer found the case to be smallpox. Investigation disclosed that in addition to the town case there had been ten cases in Niagara Falls, with onsets of illness between June 21 and August 3, none of whom apparently had called a physician. The cases were limited to four related households in an isolated section near the city limits.

The outbreak is believed to have originated from a case in a family who ar-

rived in Niagara Falls from Utah on June 7, following exposure to alleged chickenpox just previous to their departure from that State.

Local health officials concerned and members of the staff of the State Department of Health have cooperated in controlling the outbreak. Twenty-two known immediate contacts have been vaccinated and are under strict quarantine. Upwards of 200 other persons living in the immediate neighborhood also have been vaccinated and a house to house vaccination project in this territory is nearly completed. The outbreak is believed to be sufficiently under control so that visitors to Niagara Falls need feel no special concern.

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PUFF OR VANITY SHEETS

Publications having high-sounding names, often not regularly issued and frequently without any subscription circularization, are classified as the "vanity" type of publication by the trade. A number of such publications exist in New York City.

Recently physicians have been solicited by one of them.

They are generally published when there is a sufficient amount of the "puff" and "vanity" type of business secured. The circularization is mainly confined to the number of copies that the solicited individual is gullible enough to purchase. They are operated about as follows:

Generally the head of the publishing concern scans the newspapers daily and notes the names of visitors or others who have been quoted in the press. Persons from out

of town are particularly desirable "victims." The names and whatever information is available is turned over to a staff of writers who write stories of varying lengths. These stories are turned over to solicitors who get in touch with the person concerned and endeavor to read the article, to gain approval of it, and to sell as many copies as possible of the issue containing the article to the persons thus approached. These writers and solicitors work on a commission basis, being paid only when their work brings in a sale of copies.

Caveat emptor—Let the purchaser beware!

Let the seller beware—has not yet come to pass.

—*Bulletin* of the Medical Society of the County of Kings

What does the public want, quantity or quality? Compulsory health insurance will bring more people to the doctor's office, but each will go out with less in terms of what

he needs most—thorough individual care and attention.

—*Onondaga Med Soc Bulletin*

Public Health News

Cases of Cowpox Originating from Vaccination

THIS JOURNAL of August 15, 1936, published a report by Dr Stanley W Sayer and Dr Franklyn B Amos, of the district staff of the New York State Department of Health, of an instance of transmission of cowpox from a recently vaccinated person to several cows and from the cows to other persons. The authors, at that time, said that they had been able to find no previous similar report in medical literature. Dr Amos has now reported another series of cases which recently developed in another section of the state under almost identical circumstances.

Another member of the department staff, stationed at Albany, was told by a friend that members of her family were reported to be suffering from cowpox. The family lived on a farm in the district which Dr Amos was working and, his interest in the subject being recalled, he was advised of the report and made an immediate investigation. The facts, as reported by Dr Amos, are summarized.

R P, age eighteen, was vaccinated on June 7, the vaccination giving a primary reaction and running an uncomplicated course. R P assisted in the care of a herd of about twenty cows. About June 18 it was observed that "the cows" (number not stated) were infected with cowpox. About June 28 several lesions appeared on the forearm of a young brother, T P, who also had assisted in the care of the cows. A physician who examined

the lesions on July 2, stated that they had the appearance of "typical vaccination pustules." This boy also developed lesions on his face and, from July 2 to 5, was acutely ill, his temperature reaching 103°. When seen later by Dr Amos the lesions had disappeared and he had "twelve typical vaccination scars" on his forearm and two on his face. About July 5, M P, a thirteen year old boy who also had been in contact with the cattle, developed a "vaccination lesion" on his hand. This apparently ran an uncompleted course and left a typical scar.

The only other member of the family who handled the cows was F P, the father. He had been vaccinated four times, the last time about twenty-five years before. He was not infected. Other members of the family, who did not come in contact with the cattle and were uninfected were the mother, vaccinated about forty years before, an adult son, and two younger children, none of whom had been vaccinated.

Dr Amos, in his report, mentioned "an economic side" of the matter. One of the cows, which apparently recovered ultimately, was at one time in such a condition that it was believed she would have to be destroyed. At this time Mr F P threatened to sue the physician who had performed the original vaccination for damages covering the value of the cow—
Paul B Brooks, State Dept of Health

State Cancer Institute Makes Important Change in Policy Physicians Required to Apply for Admission of New Patients

Owing to the great demands on the medical, nursing, clerical and bed facilities of the State Institute for the Study of Malignant Disease, it will be necessary from now on for physicians to make application for the admission of new patients setting forth the type of lesion, extent of the disease, physical condition of the patient, factors of any previous treatment given, and operative findings, if any. (In cases where biopsy has been done, the slide should be sent with the patient provided the tissue has not been previously submitted to the Institute laboratory.) On receipt of this information, so far as possible, an early

appointment will be made for the reception and thorough treatment of the patient if in the judgment of the Institute it is warranted.

With the cooperation of physicians under this policy, it is hoped that patients may be better served and that those who offer the greatest possibility of relief by irradiation may be cared for more efficiently. So far as possible, the general diagnosis of gastrointestinal diseases should be made at the general hospitals as the Institute facilities and supplies are very limited.

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Medical News

Broome County

A PROPOSAL THAT the Broome County Medical society establish a system whereby relief clients may be examined and treated by their own physicians at public expense is to be presented to the Broome County Planning commission as a possible means of cutting down relief costs in the county, according to press reports

The suggestion comes from Clement V Conole, district superintendent of the division of placement and unemployment insurance of the State Department of Labor and chairman of the planning commission's committee on local government

Under the proposed plan, as outlined by Mr Conole, "the county medical society would set up a system for examining and prescribing care and treatment for relief cases. The latter would report to their own physicians who would be paid from relief funds on a stipulated basis, corresponding somewhat to the present system of compensation claims"

The committee head pointed to a possibility of Federal Department of Health assistance in such a program since it had recently received a large appropriation

Mr Conole is confident that the suggestion would be more popular with medical men than the free dispensary or clinic system of caring for needy persons because each person would continue under the care of his own family physician

Possible saving in relief expense is seen in the fact that many persons fail to obtain employment because of ill health or physical defects that might be overcome under supervised diagnosis and treatment.

Chautauqua County

THE SIXTH ANNUAL INTERSTATE medical meeting, sponsored by the Chautauqua County Medical Society was held on July 28 at Chautauqua. Scientific sessions were held in the morning and lectures to lay people in the afternoon. On the program were Dr Walter Alvarez of the Mayo Clinic Foundation, Dr Russell Cecil, Professor of Medicine of Cornell University Medical School, and Dr Winfield Scott, Professor of Urology of University of Rochester. In the afternoon, the same speakers addressed a lay audience in the amphitheater. Dr Cecil spoke on "Plight of the Arthritic", Dr Walter Alvarez on

"Nervous Indigestion". A program of entertainment was arranged, composed of golf tournament with prizes, boat ride on Chautauqua Lake, and in the evening, a concert by the Chautauqua Symphony Orchestra with Beryl Rubinstein piano soloist and Albert Stoessel conducting

Erie County

CREATION OF A MEDICAL DIVISION in the County Welfare department for the medical and dental supervision of all welfare activities of the department was voted July 16 by the Finance committee of the Board of Supervisors and approved by the Board, July 20

The action was taken on recommendation of County Welfare Commissioner James C Lees, after an eight months' study of the need for a central medical setup in his department

Dr William Handel, a member of the committee on Economics and Public Relations of the County Medical Society, has been designated as medical supervisor in charge of the division. Commissioner Lees explained Dr Handel's activities will be confined entirely to supervision. The Erie County Medical and Dental societies will cooperate with him

The new division will include four nurses and sixteen clerks - Dr C M Roberts is in charge of dental supervision

The division will have charge of medical treatments for home relief and blind relief clients, persons receiving old-age pensions, child wards in homes and institutions, mental cases, and for persons receiving hospitalization. The set-up will be ready for release September 1

ATTEMPTS TO FORMULATE a plan for extending existing medical service to indigent patients and at the same time to provide remuneration for physicians in these cases were discussed on June 30 by representatives of various agencies concerned at a meeting in Hotel Statler in Buffalo

The meeting, sponsored by the Medical Society of the County of Erie, was attended by members of the Council of Social Agencies and the State Department of Social Welfare.

Two plans were proposed, not dissimilar in many aspects, by Dr Walter S Goodale, superintendent of the City hospital, and by the Medical society

Dr Goodale's plan provides that a panel of doctors be set up, composed of all who wished to cooperate in the plan. All hospitals in the county would be at liberty to extend bed care to charity cases.

The administration of the system could be accomplished through the City hospital, with doctors and hospitals sharing in a set stipend paid from public funds.

The Medical society advocated a panel of doctors, co-ordinated by a committee from the society, who would care for indigent patients in their homes at a set fee established by the committee in conjunction with the Council of Social Agencies.

William J O'Brian, director of the State Department of Social Welfare, pointed out that if the city of Buffalo had been operating under the latter plan, a reimbursement of 40 per cent of the funds expended for care of indigents could have been claimed from state ERB funds.

Greene County

A REGULAR MEETING of the Medical Society of Greene County was held at the Ledge End Inn, Twilight Park, Haines Falls, Tuesday, July 13, when Dr E C Boaf gave an address on diseases of the heart and coronary arteries.

Kings County

BROOKLYN'S MEDICAL, HEALTH AND WELFARE agencies and the public in general in the Williamsburg-Greenpoint section rejoiced as the Department of Health dedicated the new \$238,869 health center at 150 Maujer Street, facing the Williamsburg Federal housing project, on July 28.

A luncheon in the new building marked the dedication ceremonies with Mayor LaGuardia, Borough President Ingersoll, and Health Commissioner John L Rice as the principal speakers. Presiding was Dr James Steele, chairman of the district's medical advisory committee.

This was the fourth of eight City-owned, City-built district health center buildings to be opened in the five boroughs this year, and the first in Brooklyn. Its financing was aided by the Federal Emergency Administration of Public Works.

"A neighborhood house of health," as Commissioner Rice calls it, it will serve a population area of 250,000 residents, bringing the facilities of the Health Department into the district with emphasis on preventive medicine and health education.

Quartered in the building are dental and hygiene clinics, maternity and infant welfare clinics and tuberculosis, x-ray, venereal disease sections and eye clinics.

It also houses space for visiting nurses and for voluntary health and welfare agencies working in the district, an auditorium with stage, an exhibit room and a conference room for doctors.

Among the 200 guests at the luncheon were Arthur S Tuttle, State director, Federal Emergency Administration of Public Works, Dr Thomas A McGoldrick, president, and Dr Alec N Thomson, director of medical activities, of the Medical Society of Kings, Bailey B Burritt, chairman of the executive committee, Committee on Neighborhood Health Development, and Douglas P Falconer, general secretary, Brooklyn Bureau of Charities.

Livingston County

DR. FREDERICK JOHN BOWEN, seventy-two, a well-known resident and physician of Mount Morris for forty-seven years, died at his home in July of lympho-sarcoma, after an illness of nine months.

New York County

A SYPHILIS CENSUS, similar to that projected for Chicago, where all citizens will be asked to take blood tests, has already been taken several times in New York City and has shown that about five per cent of the local population is infected, Dr John L Rice, Commissioner of Health, says. The censuses showed that of those infected, only one person in eight or nine is under medical care.

It was also learned that the Health Department's distribution to private physicians of free doses of bismuth and salvarsan, used for treating the disease, doubled during April, May, and June over the amount distributed free in the first three months of this year. The later figure was about 50,000 doses, given out to 688 doctors and more than forty voluntary hospitals.

Dr Rice said the city's Health Department completed syphilis censuses in 1928 and 1935 and also tested over many years such groups in the city as pregnant women, food handlers and certain racial groups. The State Department has also made censuses, he said.

"The Department of Health," he declared, "as a routine, performed over 300,000 blood tests last year and the number of applicants for the blood tests is constantly increasing in response to steady educational effort, and extended modern facilities in the hands of private physicians and in clinics."

The clinics are distributing lists of qualified private physicians willing to treat syph-

ilitic patients for as little as \$2 or \$3 a visit. The lists were furnished by the county medical societies.

DR. JAMES RAMSAY HUNT, professor of neurology at Columbia University and director of the neuro-psychiatric division of the New York Neurological Institute, died on July 22 at his summer home at Katonah, Mount Holly Farm. He was sixty-three.

Dr. Hunt was president of the New York Neurological Society in 1909, president of the American Neurological Association in 1920, president of the American Psycho-Pathological Association in 1932 and of the Association for Research in Nervous and Mental Disease in 1934. He was also a founder member of the American Society for Clinical Investigation.

Dr. Hunt contributed many authoritative articles to medical journals and was the author of numerous works on medicine which have become standard, including "The Pallidal System," "The Static and Kinetic Systems of Motility," and many others.

NURSES AND EXAMINERS of the Lower Harlem Chest Clinic, at 111 West 116 St., are going out among the populace of Harlem to induce possible cases to have diagnostic x-ray pictures taken. They have already made more than 50,000 visits, according to a WPA bulletin. The clinic is staffed largely by WPA personnel. Harlem is the sore spot in the city's tuberculosis problem. But, it has been discovered, a large proportion of the group which most needs a clinic's services is held back by fear. Many of the Negroes of Lower Harlem have been told that the clinic is a dangerous place to visit. Some of them confuse the term "x-ray" with a wildly improbable "death ray." If they are left to themselves, the clinic is the last place from which they seek assistance.

To counteract this feeling, members of the clinic's visiting staff go to the homes of Harlem residents whose names have been furnished by the Emergency Relief Bureau and attempt to explain the benefits of the service. The visitors take with them snapshots of the clinic as well as finished x-ray pictures. These show prospective patients far better than words the merits of the work being done. To many the x-ray pictures prove so intriguing that they decide to come in and have some taken of themselves.

The clinic has recently placed in operation a celluloid x-ray machine, which makes it possible to give detailed diagnoses of patients who formerly had to be referred

to other clinics for such work. Previously, the clinic had used only the new paper films. These are still being used for general examination work to determine the presence of the disease, but celluloid films are necessary for discovering the finer details, the differences and significant shadows, which furnish the physician a true picture of the individual case.

Oneida County

A FEATURE OF THE DEDICATION of the new \$162,000 annex to the Oneida County Hospital in July was an address by Dr. William Hale, president of the County Medical Society. He declared that the annex presented a possibility for the development of a cancer clinic, "something badly needed in this county."

"It would be a wonderful thing for Oneida County to have a county clinic, a clinic for treatment of all cancer cases in the county and for study and early diagnoses of early cancer," Dr. Hale said.

Dr. Hale's suggestion for a clinic was endorsed by Floyd W. Fenner, county commissioner of public welfare, who followed him as a speaker. Mr. Fenner cited the need and importance of such a clinic and the tremendous benefits it would bring to sufferers and the county itself.

Dr. Hale, after suggesting the cancer clinic, continued in part:

Speaking for the Oneida County Medical Society, I congratulate the people of this county on having a Board of Supervisors who had the necessary vision to construct this new addition. The Medical Society appreciates thoroughly the need of this addition.

But the physicians in this county view with alarm and a great deal of regret the facts that the events of recent years may have so diminished the pride of some people who instead of seeking admittance at regular hospitals through regular channels are willing to come to the "poor house" and are pulling wires to have their families admitted here for medicine and surgery and are placing themselves in the position of indigents.

Surely our pride has had a great fall. Those who are able to pay their way should be instructed to go elsewhere for treatment so they will not occupy a bed that is already needed for someone less fortunate.

But it is not alone the community that is to be blamed. Some physicians have developed a habit of sending their patients here for everything and usually as an emergency, thus depriving the superintendent of his option of accepting the case and also upsetting the routine methods which the commissioners have tried so hard to establish.

In the days of our fathers it was not smart to accept charity and I wish to impress upon every resident of this county, upon every

doctor in the county and upon every superior elected in the county and whose influence in this matter is frequently sought and upon you all that the patient in this hospital is accepting charity in every sense of the word when he enters for treatment and our sympathy goes to him when he is forced to ask for this charity. And when this charity is required we are thankful that we have this well-organized institution still more efficient by the completion of this splendid addition.

Onondaga County

DENOUNCING CERTAIN PHYSICIANS of the Syracuse area whom he termed as "unscrupulous" because of their part in illegally supplying drugs to addicts, Major Garland Williams, district supervisor of the United States bureau of narcotics, came to Syracuse on July 7 to inspect the local bureau and to probe details of the Dr Norman W Foster arrest for dispensing drug prescriptions. He said "Recent cases in this district have pointed out an alarming tendency of certain unscrupulous physicians to supply narcotics to common addicts. The medical profession as a whole has always co-operated with the narcotic bureau and we implore the profession to continue to aid us in our work. Institutions are now provided for addicts, and in many cases prescriptions for dope are not needed as much as careful treatment."

R. MARCUS DICK, of Cranston, R. I. Syracuse University graduate with the class of 1937 and honor student in the campus R. O T C regiment, was named executive secretary of the Onondaga Medical Society in July by Dr Joseph Wiseman, president. Creation of the new position was announced by a committee headed by Dr Gordon D Hoople of the society. An office will be established as clearing house for all medical, legislative and social problems affecting the profession. Dick is a graduate of the College of Business Administration where he majored in general business subjects.

Ontario County

DR. GEORGE B ADAMS, director of the Cayuga County Laboratory, and acting coroner of Cayuga County since the illness and recent death of Dr A. F Hodgman, addressed the Ontario County Medical Society at a meeting on July 13 at Clifton Springs Sanitarium. Doctor Adams' topic was "Some of the Ways that Laboratory Medicine May be Advantageously Used in Clinical Medicine."

Orange County

DR JOHN TAYLOR HOWELL, long prominent in Orange county medical circles, died in Newburgh on July 10 following a two months' illness. Just five months before his death he had completed fifty years of practice in Newburgh. He was one of the organizers of St Luke's Hospital and the first chief of its medical staff. He had continued a member of the medical and surgical staff of the hospital from its beginning until his death.

Queens County

THE MEDICAL SOCIETY of the County of Queens will hold a joint meeting with the Queensboro Tuberculosis and Health Association, Sept 22, at the Medical Society's building.

A golf tournament and putting contest will precede the dinner which will be served at the Queens Valley Golf Club. The meeting will be held after the dinner.

Dr Jay Arthur Myers, president of the National Tuberculosis Association and professor of medicine and public health at the University of Minnesota, will give an illustrated lecture on "Tuberculosis in Childhood."

THE MEDICAL SOCIETY of the County of Queens, Inc., under the auspices of its Public Health Committee, has awarded a cup to the writer of the prize winning essay on the child health exhibit which the society held at its building last May.

The cup was awarded by Dr Henry A Reisman, chairman of the Public Health Committee, to Miss Florence Kuhle of Bayside at the American Legion Hall in Bayside.

St Lawrence County

THE ST LAWRENCE COUNTY Medical Society met at the Massena Country Club on July 22 as guests of the Massena doctors. Fifty-four members and their wives were present. Dinner was served and the afternoon was spent in golf and bridge.

Wayne County

THE AUGUST MEETING OF THE Wayne County Medical Society was held at Sodus Bay Heights Country Club on August 3. A sports program, including golf, swimming, cards, and boating was enjoyed and dinner was served. The scientific program featured reports and discussion of lead poisoning and melanotic sarcoma cases by Society members.

Hospital News

The Volunteer Workers

MANY NEW FACES APPEARED in various hospitals which use volunteer workers when the women's colleges closed for the summer. An influx of girls from Wellesley, Smith, Bryn Mawr, Skidmore, Barnard and Hunter replaced other volunteer workers who live near the hospitals and give part of their time during the winter. An informing article on this topic appears in the *New York Times* by Miss Charlotte Hughes, who speaks especially of the volunteer system as it works at the New York Hospital.

She tells us that the number of volunteer worker in hospitals in New York and other cities is increasing, and the value of their services to doctors and nurses is being appreciated more and more, according to Miss Beatrice Meyer, secretary of the volunteer department at New York Hospital. Miss Meyer is now making a survey of volunteer work in hospitals throughout the United States.

The volunteers go quietly about the buildings of New York Hospital clad in blue uniforms that distinguish them from the regular nurses and paid hospital assistants. Their work is not spectacular. They do the necessary odd jobs that doctors and nurses relegate to them. These jobs are not the sort that would amuse a dilettante. They require hard work, perseverance and something more than a vague desire to play nurse in a real hospital.

Doctors and nurses at the New York Hospital are asking increasingly for help from the volunteer corps, and are expressing gratitude for the aid they receive, Miss Meyer says.

Eighty-eight volunteers put in 7,000 hours of work at the New York Hospital during April, a figure that breaks all records for the five-year-old service. Eighteen of these women worked full time, forty-three hours a week. Thus staff doctors, internes and nurses were relieved of much tedious routine and were enabled to put in more time on research.

Volunteers always work under the direction of a hospital staff member. They supplement work done by paid personnel, and do not invade fields covered by paid workers. Requests for volunteers are made only when appropriations for paid workers have been exhausted.

Volunteers with college degrees and

courses in chemistry or bacteriology among their credits are given coveted work as laboratory assistants. These openings are rare. They enable a college girl to continue her laboratory studies and to put behind her some practical experience valuable in job hunting. One girl helped a doctor by conducting skin tests for his research on hay-fever allergy. Another helped in research conducted through feeding rats a copper-free diet. A third had charge of some chimpanzees, which she fed a special diet in connection with cardiac research in the pediatric department. She had to keep careful records of the pulse and respiration of the animals.

A girl who is efficient at shorthand has been taking medical dictation while doctors operate on dogs in the department of experimental surgery. She has been doing this on a volunteer basis for almost a year, giving her entire time to it and making extensive histories of each experiment.

Knowledge of the calorie content of food comes in handy for a certain volunteer who works in the hospital's nutrition department. This girl is specializing in home economics at Hunter College, thus dovetailing her school and hospital work. She takes orders from patients for their meals, checks the calorie content and aids the dietitian in charting the calorie consumption of each patient.

An experiment conducted in the hospital's arthritis department also utilizes a volunteer aide, who makes careful calculations of the rate of flow of red blood cells. This job requires real technical knowledge. It is no work for a dabbler.

Sometimes a doctor at the hospital wants to undertake some research and experimentation for which there is no special appropriation of funds. He can call on the volunteer corps for a helper. If it is in an original field, he wants a girl who can wade through a great amount of literature on the subject and prepare a bibliography for him. One girl had to weed out sources on blood transfusions and their reactions on children.

It is not every volunteer who is equipped to render such technical service to the hospital. Some of those with less training take on work as volunteer clinic aides, answering the telephone, filing card slips, giving reappointments, sending for records.

Volunteers working under nurses in

charge of pavilions fix flowers for the patients, write their letters and do errands for them. They enter records of temperature, weight, respiration and pulse, and help with the linen. Sometimes they feed the patients.

The unpaid workers are coached beforehand in the attitude they are to take toward a patient. They are to consider his feelings and anxieties, and to be considerate, interested and cheerful. The volunteers are told to have no opinions as to the diagnosis of the patient's symptoms or the efficacy of

treatments or medicines prescribed. They never give advice that might be interpreted by the patient as coming from one in authority.

Volunteer work in hospitals grew to important proportions during the depression, when hospital incomes fell off and when trained girls found hospital and laboratory jobs scarce. The work has grown steadily since then and has not fallen off, though money for hospital use has become more available in recent years.

Perilous Visitors

VISITING DAYS IN THE HOSPITAL cannot be said to be an unmixed blessing. The coming and going of a great number of people with inevitable patient contacts represents, especially in the maternity and pediatric departments, a definite health hazard, believes *The Modern Hospital*. Indeed, in some hospitals conducted for the care of children, the institution known as visiting day has been relegated to the past. In such hospitals elaborate and costly physical arrangements are sometimes installed for the prevention of the transmission of infection from the visitor to the child patient.

When such arrangements are not made, even though parents are permitted to see their children, this privilege is granted only at weekly or even at more infrequent times. Indeed, the benefit and pleasure derived from permitting visitors to the pediatric department are largely one-sided, for the child, after a few days in a hospital bed, quickly adjusts himself to institutional routine and cries only when parents arrive and leave and rarely in their absence.

The maternity department represents another example of a hospital division from which, if possible, visitors might well be excluded. To be sure the prideful husband develops a mighty chest expansion and experiences undoubted pleasure in visiting the

mother and the new member of his family. Doting grandparents, aunts and uncles are drawn irresistibly to the maternity department on visiting days. To prevent the handling of infants by fond relatives, the soiling of a patient's room or bed by careless and unclean visitors represents a real problem in hospital public health.

The sight of a crowded maternity corridor and a nurse with baby in arms endeavoring literally to fight her way through in order that she may deliver the infant to its mother is not uncommon in our hospitals. Little wonder that impetigo and other infections occur in the presence of this daily or tri-weekly deluge of well meaning but potentially infective visitors. Reasoning, explaining, cautioning or even ordering exerts but little quieting effect upon their curiosity and misplaced affection.

To clear the department of outsiders at nursing time might be helpful, to prevent the visiting of children there is certainly indicated and if necessary visiting hours should be temporarily abandoned in the presence of threatening infection. Patients are much more easily handled than are their relatives who, because of ignorance, permit selfishness to prevail where thoughtfulness for the welfare of the mother and child should be foud.

Newsy Notes

THE MANY NEW BUILDING PROJECTS here lend interest to a special hospital issue of the *Architects' Journal* (London, June 24, 1 shilling) which illustrates some of the best recent hospital construction in Great Britain. The work shown in this issue, says the *British Medical Journal*, "is not only a delight to the eye, but furnishes an example of perfect adaptation to modern

ideas in institutional treatment of the sick." It adds "The largest problem in hospital construction is vertical versus horizontal planning. The vertical hospital has great advantages to offer in convenience for the staff, but it is also very costly and, unlike the horizontal hospital, not easily altered when it becomes out of date, as it may easily do in twenty years."

LOUIS T. STRAUSS, a director of the Jewish Hospital of Brooklyn and proprietor of a meat market at 125 Smith St., has announced his resignation from his hospital post in a letter to Morris Berlin, vice-president of the Hospital Employes' Union, which has been conducting a strike at the institution since last March. In the letter, Strauss recounted his sympathy with the strikers and expressed his disagreement with the policy of the hospital directorate. Made public at the same time was a letter from Nathan Jonas, president of the hospital, accepting Strauss' resignation and thanking him for his many years of service. Mr. Jonas later stated that Strauss' market had been picketed and that the hospital board had been informed of the distress which the action was causing Strauss. Mr. Jonas indicated this was the real reason for the resignation.

A "NEW WAY" WITH CHRONIC PATIENTS

ON WELFARE ISLAND there is a small hospital unit called the Research Division of Chronic Disease, which will serve as a model for the new Welfare Hospital when that is finished.

The atmosphere is optimistic and bustling—almost gay—the women patients wear bright ribbons in their hair, the men do embroidery, says an article in the *New York Journal*. The beds are green, not white, there are maps on the walls and pictures of movie stars and baseball players, and samples of the patients' handiwork.

All the patients look pleased and interested and gossipy—yet when they came into the unit they were typical samples of the forlorn half-hopeless specimens that drift into the city hospitals labeled "chronic."

"It's a new way of treating chronic patients," explains Dr. C. George Scherf, medical superintendent of Metropolitan Hospital. Usually the chronic patients are the 'orphans' of the hospitals; they find themselves in them. They're not dramatic like acute cases that need immediate care and show immediate results.

"So they get shunted from pillar to post, given barely custodial care, when in many cases much could be done for them."

The chronic diseases whose possible causes are being studied in the Research Division are cirrhosis of the liver, rheumatoid arthri-

tis, hypertension, Bright's disease, and asthma, as well as others.

"This," said Dr. David Seegal, director of the unit, "is a sort of trial horse. Our hope is that if this model works, the idea will permeate to hospitals in other cities."

"The staff here has an optimistic point of view. We've tried to eliminate the usual sterilized veneer of the usual hospital. We've tried to make the patients feel that the golden rule is at work here, we've given them the privacy so often lacking in hospital wards—and most important, we've given them some place to go besides bed."

TUBERCULOSIS HOSPITALS FAR BEHIND THE NEED

DR. S. S. GOLDWATER, Commissioner of Hospitals, announces the results of a fresh survey of tuberculosis hospital service in the City of New York. The total normal capacity of tuberculosis hospitals and wards in twenty-one public and private institutions is 4578. The number of patients cared for on July 2 was 4980. Patients, therefore, exceeded the normal bed capacity by 402. In addition, the Tuberculosis Hospital Admission Bureau of the Department of Hospitals, which cooperates with tuberculosis clinics and welfare agencies had knowledge of 392 waiting cases for hospital care.

To relieve existing overcrowding and to accommodate waiting applicants, the Department of Hospitals has in hand four building projects in Manhattan, Queens, Richmond and the Bronx, which, when completed, will make available approximately a thousand additional beds. Of this number, 250 are in the new Children's Building at Sea View, which is rapidly approaching completion, and 150 in the new tuberculosis wards at Bellevue, which will be turned over to the Department of Hospitals for equipment in the Fall. The Triboro Hospital for Tuberculosis, to be erected on a plot adjoining the present Queens General Hospital, will accommodate 500 patients; this project is still in the planning stage, as is the project for a group of tuberculosis wards in the Bronx.

The New York Tuberculosis and Health Association has again appealed to the City to provide 2500 tuberculosis beds over and above those available.

Improvements

FIVE NEW HOMES for physicians have been built in the Middletown State Hospital grounds. The hospital chapel will be completely remodeled. Each house has eight rooms, garage, and study. The kitchens have complete electrical equipment.

A NEW \$100,000 CHILDREN'S hospital with fifty rooms, is to be built in Buffalo. The new hospital already has the approval and commendation of national pediatricists. Dr. Walter J. Craig, director of orthopedics at Albany, has praised the plans and said it would be one of the best of its kind in the United States. It will be modeled after one affiliated with Johns Hopkins Medical School at Baltimore.

UNDETERRED BY A THREATENED lawsuit to test the will of the late Nettie M. Roe providing for the proposed John Van Brunt Roe Hospital, Joseph T. Losee, attorney for the trustee of the Roe estate, has announced that the Patchogue Citizens Bank & Trust Company, estate trustee, will pro-

ceed with the acquisition of the hospital site and the construction of the building. The threat of an action against the will was first made six months ago by the Patchogue law firm of Shaw, Greene & Kernis, who announced they had been retained by unnamed second cousins of the late Miss Roe. Efforts to expedite this proposed lawsuit failed when Surrogate Robert S. Pelle-treau ruled that he had no jurisdiction in the matter.

BIGGS MEMORIAL HOSPITAL at Ithaca will spend over \$45,000 on new roadways.

THE HOLY FAMILY HOSPITAL in Brooklyn will install a new elevator at a cost of \$12,000.

THE MEDINA MEMORIAL HOSPITAL will expend \$2500 to \$3500 in beautifying and landscaping the grounds. The funds will be raised by the Junior Chamber of Commerce.

At the Helm

DR. J. LEWIS DONHAUSER AND DR. L. WHITTINGTON GORHAM have been appointed, respectively, surgeon-in-chief and physician-in-chief to Albany Hospital. Dr. Arthur J. Wallingford was named gynecologist. The appointments were brought about by resignation of Dean Thomas Ordway as executive head of Albany Medical College's department of medicine and the retirement of Dr. Arthur W. Elting and Dr. John A. Sampson. Dr. Donhauser will succeed Dr. Elting as professor of surgery and as executive head of the college's department of surgery. Dr. Gorham succeeds Dean Ordway as professor of medicine and executive head of that department in the college. Dr. Ordway, who also resigned as dean, remains as professor of medicine and consulting physician at the hospital. Dr. Wallingford succeeds Dr. Sampson as professor of gynecology and executive head of the college's department of gynecology and obstetrics. Dr. Sampson will continue as professor of gynecology.

MISS J. P. ALLEN, superintendent of the Kingston City hospital, was elected president of the Hospital Association of North-eastern New York at its annual meeting in Poughkeepsie at Vassar Alumnae house on June 18. She succeeds M. M. Sutherland, woman superintendent of the Mary McClelland Hospital, Cambridge, N. Y. Dr. Charles Martin, medical superintendent of the Albany General Hospital, was elected vice president, and M. S. Dondale, secretary to the dean of the Albany Medical College, secretary-treasurer. The northeastern association held a joint meeting with the Westchester Hospital Association.

Speakers, who included Joseph J. Weber, superintendent of Vassar hospital, in charge of the meeting, stressed the importance of nursing education, in its relation to changing professional conditions. Dr. Henry T. Moore, president of Skidmore College, and Elizabeth C. Burgess, professor of nursing education at Teachers' College, Columbia University, were the chief speakers.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Personal Injury Action—X-Ray Examination of Plaintiff

A few months ago, the highest Court in one of the Southern states handed down a decision in an interesting case which is illustrative of the development of the law in requiring plaintiffs in actions for personal injuries to submit to x-ray examinations in proper cases.*

The plaintiff in the action was a seven year old girl at the time it was claimed she sustained the injuries in question, some two years before the case was actually tried. The defendant was the owner of a bus that had come into collision with a coupe in the rumble seat of which the infant plaintiff was riding at the time.

Various persons who were at the scene of the accident immediately or shortly after it happened testified upon the trial that the child did not seem to have been injured. The child's mother testified that the day after the crash she discovered bruises on the hip and stomach, and vaginal bleeding for some weeks. She also claimed the child had been confined to her bed during part of that time with a high fever. Concededly, however, no physician attended the plaintiff until about three months had elapsed, when a Dr. C. was consulted.

Doctor C testified upon the trial as a witness for the plaintiff, and described a condition of soreness in both hips and back when he first saw the child. He also testified that he found soreness and swelling in the groin, and a highly nervous and anemic condition. Doctor C later took a series of x-rays of the plaintiff which he produced in court, and which were exhibited to the jury. He stated that his interpretation of the x-rays was that the girl suffered from "green stick fractures of the left pubic bone and through the ilium leading down to the left hip joint, that there was a crushed left hip joint to the extent that it was out of alignment one-quarter of an inch, that the coccyx bone was fractured and pushed to one side." He also stated "when she grows up with this hip mashed in there, she is not going to be able to ever become a mother if this bone doesn't grow."

There was also testimony on behalf of the plaintiff that the normal activities of the child had been and would continue to be greatly limited. To controvert this the defendant put on the stand various neighbors and other persons who testified that since the alleged accident they had observed the plaintiff enjoying all the usual activities of a normal, healthy child, without showing evidences of any injury or disability.

The defendant called as witnesses three physicians who were experts in x-ray interpretation and one of whom was an expert radiologist. These doctors each testified upon examining Doctor C's x-rays they were so defective as to be of little or no value. They charged that the x-rays showed no evidence of any injury. They each stated that the films showed that one hip was higher than the other, but that it was not due to a deformity but rather to the improper position of the patient when the pictures had been taken. It was also stated by the said experts that the x-rays showed that the patient had not been properly "centered," and that the pictures had been taken at an angle causing a distortion.

No physical examination of the plaintiff had been made by any physician representing the defendant before the trial as is frequent in such cases in this State, there being no specific statute in the jurisdiction to authorize such procedure.

During the course of the trial the Court permitted the plaintiff's hip and abdomen to be exhibited to the jury in presence of the trial Judge and counsel in the jury room. As that was being done, the mother testified that there were bruises on "her little stomach here" and that a certain scar had not been on her hip before the accident.

Immediately after returning to the courtroom defendant's counsel made an application to the Court for permission to have a physical and x-ray examination of the child made by disinterested physicians. No consent was given to the proposed examination, and the application was denied.

The jury returned a verdict in favor of the plaintiff in the full amount demanded in the complaint.

**Dixie Greyhound Lines v Matthews*, 170 So 686.

The defendant took an appeal from the judgment, assigning as error the refusal of the Court to grant the requested physical examination. The Appellate Court ruled that under the circumstances the ordinary immunity against physical examinations no longer existed, and that the judgment should be reversed by reason of the erroneous refusal to permit the desired examination. In so ruling the Court said

X-ray pictures of the parts of appellee's body which were claimed to have been injured in the accident were produced before the jury, and the correctness, accuracy and sufficiency of these pictures were sharply controverted, and the alleged injured parts of her body were voluntarily exhibited to the jury. This being true, upon authority and what we consider the better reasoning, we have reached the conclusion that thereby appellee's personal immunity from examination by experts was waived, and that under these circumstances the supposed injured parts which were exhibited to the jury thereby became subject to a reasonable and proper x-ray and physical examination by experts of the defendant's selection, under such reasonable restrictions as the court might require. The court would not be required to, and should not, grant the right to an examination that would involve unreasonable delay of the trial, and in granting the right to such an examination should preserve the injured party's right to have his own medical and legal representatives present at such examination.

It should be noted that in New York State, Section 306 of the Civil Practice Act provides as follows

Physical examination In an action to recover damages for personal injuries, if the defendant shall present to the court satisfactory evidence that he is ignorant of the nature and extent of the injuries complained of, the court, by order, shall direct that the plaintiff submit to a physical examination by one or more physicians or surgeons to be designated by the court or judge, and such examination shall be had and made under such restrictions and directions as to the court or judge shall seem proper. If the party to be examined shall be a female she shall, if she desire, be entitled to have such examination in the presence of her own personal physician and such relative or other person as the court may direct. The order for such physical examination, upon the application of the defendant, may also direct that

the testimony of such party be taken by deposition pursuant to this article.

The courts of this State have held that in proper cases a physical examination under the said section may include an x-ray examination

Claimed Negligent Treatment of Infant

A physician who specialized in ear, nose, and throat work was called to attend a five months old baby. He found the child to have a temperature of 103°F and a swelling of both sides of the neck. Both ears were congested as well as the throat. He prescribed a medicine for the fever and drops for the ears. A few days later he incised both ears and released pus. Three days later the doctor drained the ears with a suction tube and again when he was called at night, (the second day after the said treatment), he found the child gasping for breath. His diagnosis after examination was a peritonsillar abscess on the left side, which he immediately incised. The next day the child's mother reported the child had become apparently worse and he directed that the child should be taken to a hospital specializing in the care of infants. The doctor, later in the day, communicated with the house physician and ascertained that the child had been admitted to the hospital and was being taken care of. He never saw the child thereafter and later learned, that about a week later, the child died, the cause of death being given on the death certificate as peritonsillar abscess contributed to by laryngeal edema.

A malpractice action was instituted against the doctor charging that he had been negligent throughout the care of the child and specifically charging that he had used unsterile instruments in connection with the surgery which he had performed. It was claimed that said alleged negligence caused the baby's death.

The plaintiff's attorney made repeated attempts to obtain an offer of settlement from the attorney for the defendant doctor and when he was finally convinced that no settlement of the case would be made he stipulated to discontinue the action.

Because of the equivocal results attending the use of pertussis vaccine for the prevention of whooping cough, and the difference of opinion still existing concerning the value of such prophylactic injections, the New York City Department of Health has decided to limit its administration of the vaccine to a carefully controlled experimental project now being carried on

under the direction of Dr. Ralph Muckenfuss, Director of Laboratories at the Williamsburg-Greenpoint health center and at the Prospect Clinic in Brooklyn. Heretofore the vaccine was administered on request at all the Baby Health Stations. This practice will now be discontinued. Through the experimental project the Department hopes to arrive at definite conclusions.

Across the Desk

"The Salt of the Earth"

THE LATEST WRINKLE IN FACTORY management, it seems, is to have supplies of common salt here and there around the plant, so that workers who become overheated can take a pinch now and then, or a drink of cold salt water, to avoid heat prostration. The pinch of salt prevents heat stroke by supplying more NaCl for the briny sweat of honest toil. The *Roche Review* says that some manufacturers also set out a supply of gum drops or other candy, along with the salt, to make good the body's loss of sugar.

A Matter of Life and Death

So salt, made of two deadly substances, is essential to life. Either one, taken separately, will bring death, but if we do not take them in combination, that brings death too. It is like other deadly poisons, such as arsenic and hydrochloric acid, that help sustain life when used rightly, and snuff it out when used wrongly. Our whole system, we might say, floats in a briny saturation, and whether we sweat, weep, or bleed, we prove that we have within us, from top to toe, "the salt of the earth." By the salty sweat of man, he wins from the world all its rich products of field and stream, the gold from the mine, the jewels from the mountain, the pearls from the sea, the furs from the forest, and by the briny tears of woman she wins them away from him for her personal use and adornment.

Why and how the human system became so impregnated with chloride of sodium is an intriguing question. Some scientists have hazarded the guess that the strangely persistent bodily temperature of 98.6°, alike in the Arctic and in Africa, traces back to our aquatic ancestors who floated for eons in seas of that temperature. Well, if science is to leave the solid ground of fact and leap lightly off the springboard of fancy like that, nothing prevents us from doing the same, and we can suppose that our fishy forebears, in their eons of salt-water bathing, became so used to it that we still have to have our systems full of brine. But was the ocean as salty in those days as it is now? True, the great salt deposits in vari-

ous parts of the world are supposed to be the beds of old seas that have dried away, but how did the old seas get so salty? Was the salt brought down to them by the rivers? Which had it first, the sea or the land? It is like the old riddle of which came first, the hen or the egg. It is anybody's guess, and perhaps the little girl's explanation is as good as any—that the ocean is salty because it has so many codfish.

Of course the statistical sharps would have a crack at this subject, and one of them figures that the entire ocean, if dried up, would yield no less than four and a half million cubic miles of rock salt, or about 14½ times the entire bulk of the continent of Europe above high water mark. As *Punch* would say, "Why don't they do it then?" Another suggestion might be that statisticians who have nothing more useful than this to offer might also just as well dry up.

A "Case Report"

A prominent New York doctor used to tell the story of a society woman he was called in to treat who turned out, upon examination, to have a serious deficiency of salt. She had had a series of the so-called fashionable practitioners who had given her this and that, without avail. Dr. C sized his patient up psychologically as well as physically, and was certain that if he told her she needed salt, she would merely sniff loftily and change doctors again. So he wrote prescriptions for liquids, capsules, and pills of various colors, flavors, and sizes, all of them containing basically the same stuff that was in the lady's salt-shaker. She made a fine recovery, swore by Dr. C, and always kept his prescriptions at hand.

"Ye are the salt of the earth," was a biblical compliment paid to the faithful, and we see reflected here an idea of the precious quality ascribed to the now humble and common sodium chloride. We are the salt of the earth if we have something of salt's flavoring and preservative powers, and salvation itself is derived from *sal*, or salt, which saves things from decay and corrup-

tion Our salary is the old Roman *salarium*, or salt-money "We have some salt of our youth in us," wrote Shakespeare in "Merry Wives of Windsor," as if foreseeing another wife of Windsor and perhaps explaining why she captivated him A bit of delving into the glamorous past shows that salt even played an important role in early commerce and religion Nations which did not have access to the sea or to salt deposits had to resort to unusual means to obtain it. Aristotle tells of people who got it from the ashes of saline plants, and Tacitus and Pliny tell us that it was obtained in some parts of Germany, Gaul, and Spain by pouring the waters of brackish streams over fires of saline wood and collecting the ashes Homer calls salt "divine," and Plato says it is "dear to the gods" A salt spring was venerated by inland peoples as a gift from heaven, and the Germans waged wars for saline streams and believed salty soil sacred

Symbol of Faith and Friendship

Covenants were made over a sacrificial meal containing salt, we are told, on the idea that salt has a preservative quality and hence would insure an enduring and faithful compact "A covenant of salt" is mentioned in Holy Writ (Numb XVIII, 19) It is, in fact, difficult to escape the conviction that with the fading of such old beliefs, our manners and customs have lost much of the colorful symbolism that graced other days Among older peoples every meal having salt had a sacred character and created a bond of piety and friendship between hosts and guests

Even now this idea obtains in the Orient "There is salt between us," say the Arabs, and the Persians call disloyal and unfaithful friends "untrue to salt" "A man must eat a peck of salt with his friend before he knows him," says Cervantes in "Don Quixote." Salt as a means of better acquaintance also seems to figure in the superstition of childhood that you can catch a bird by sprinkling salt on its tail Such references, which might perhaps be continued indefinitely, at least show how deeply this common condiment, which we think so little about, has entered into the life and literature of the race

What the Sheiks of Araby Wanted

The popular fancy of the old caravans that wended their way across the plains and

among the mountains of the ancient world pictures them laden with spices, silks, gold, and rare jewels That is all very fine, and is good stuff for the poet and the storyteller, who have to have that sort of thing or else have no poem and no story But the cold, hard fact, it appears, is that the old caravan routes were created mainly for traffic in salt. When some Sheik of Araby captured a caravan, it is possible that his coffee-colored followers yelled loudest when they found the camels carried a good load of NaCl One of the oldest roads in Italy is the *Via Salaria*, which brought sea salt from Ostia to the Sabine country The Latin word for health, *salus*, is more than half *sal*, or salt, and from it we get "salubrious," "salute," and many other words of good omen Heroditus tells of caravan routes to the salt oases of the Libyan desert, and we are told that even today the caravan trade of the Sahara is largely a traffic in salt. The vast salt mines of northern India were worked before the time of Alexander

We little realize the wealth of romance and even tragedy symbolized in the tiny salt-shaker we finger so lightly at the breakfast table Well within the memory of some of us European governments levied heavy salt-taxes, set up salt monopolies, and barred the very peasants along the seashore from boiling the water to get its precious mineral Many a time the crack of the coast guard's carbine felled some father trying to secure for his family that precious substance—salt The richest nations in the world are now looking hopefully to the time when they can return to the use of gold as money, something that is of no possible value in sustaining life or health, except perhaps to fill the aching void in a decaying tooth In some of the wilder parts of Africa and Asia, however, cakes of salt circulate as cash, thus neatly combining monetary and actual value Banks wishing to keep their assets liquid would merely have to add water There is perhaps an idea for our starry-eyed geniuses of the Washington "brain-trust"

The sting of the compliment to the faithful lies in its tail They are the salt of the earth, "but if the salt hath lost its savor, wherewith shall it be salted?" Pure salt, of course, never loses its savor Loss of savor means that the real salt is overcome by impurities The lesson to all of us is too obvious to need any elaboration

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

A Handbook on Diseases of Children Including Dietetics, Welfare and the Common Fevers By Bruce Williamson, M.D. Second edition 16mo of 329 pages, illustrated. Baltimore, William Wood & Company, 1936 Cloth, \$4.00

Here is a handbook that fulfills all the requirements the reviewer has desired in such a book. The author jumps from the preface directly into the middle of Respiratory Diseases which are the most important group in respect to children. An excellent discussion of the fundamentals for the understanding of disorders of the heart follows and from there on the subjects are taken up in the order of their importance. No words are wasted, no unnecessary subject is discussed, the results of the latest in medical thought are applied and throughout is appreciated the editorial guidance of the author. The book is really delightful giving one the impression of discussing the matter with an eminent specialist rather than of reading a textbook. The usual practical helps in respect to formula making, tables of weight-height standards, norms of development and the use of drugs are included. The chapter on tuberculosis could be improved upon.

KENNETH G JENNINGS

Handbook of Orthopaedic Surgery By Alfred R Shands, Jr, M.D. Octavo of 593 pages, illustrated. St Louis, The C V Mosby Company, 1937 Cloth, \$5.00

The author has accomplished the purpose for which the book was written. It is probably the best recent book on orthopaedics for the use of medical students and general practitioners.

The description of the various subjects are short, concise, and sufficient in detail. The description of many rather rare orthopaedic conditions are left out, and perhaps wisely, since it is not intended as a reference book. It is the reviewer's opinion that inclusion of a short description of proper technic and common orthopaedic apparatus would enhance the value of the book, even for the medical student and general practitioner.

The pen and ink drawings are excellent as far as they go but they are rather in-

sufficient in number. The description of some of the lesions should be clarified by the use of more illustrations.

JOSEPH B L'EPISCOPO

Ophthalmoscopy, Retinoscopy and Refraction. With New Chapter on Orthoptics. By W A Fisher, M.D. Fourth revised edition. Duodecimo of 210 pages, illustrated. Chicago, H G Adair Ptg Co, 1937 Cloth, \$2.00

A handy book of 210 pages that should be useful to students of ophthalmology. The methods of using the ophthalmoscope are explained and a number of small but very good colored plates (24) give an excellent idea of the more common variations of the fundus picture found in disease. Retinoscopy and refraction occupy 84 pages with many useful diagrams and many practical hints. The final 31 pages are devoted to orthoptics giving the opinions and technique of various authors without committing the author to any definite conclusion.

This is the fourth edition of this book and the accent is always upon the practical.

RALPH I LLOYD

Heart Disease By Paul Dudley White, M.D. Second edition. Octavo of 744 pages, illustrated. New York. The Macmillan Company, 1937 Cloth \$7.50

The value of this book needs no comment as the first edition proved to be the most authoritative present-day textbook on heart disease published. This edition has been slightly shortened by a reduction in description of methods of examination, and by curtailing the bibliography. It seems a pity to reduce the latter, as this was one of the valuable features of the book for the advanced student. However, all the key references are given, so that the book still retains this feature. The general arrangement is the same as before and two new appendices have been added, one giving the chronological order of the development of knowledge regarding heart disease, and the second the classification of cardiac diagnosis approved by the American Heart Association. The book should be in the possession of all interested in diseases of the circulation.

J HAMILTON CRAWFORD

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NONSURGICAL TREATMENT OF PYLORIC OBSTRUCTION RESULTING FROM PEPTIC ULCER

Based on a Series of Patients Observed from Three to Ten Years

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Attention has been directed to the fact that patients with pyloric obstruction, resulting from peptic ulcer, may be successfully treated by nonsurgical measures.¹⁻⁶ There is, however, one phase of this subject, which has not been sufficiently emphasized, namely, the question as to whether the medical treatment will stand the test of time, when applied to ulcer patients with a severe degree of stenosis. It was therefore thought of interest to report a group of cases with marked pyloric obstruction, resulting from peptic ulcer, which were treated by nonsurgical measures and which were observed for a period from three to ten years.

The present study comprised a series of twenty-six cases, nineteen of whom were males and seven females. A duodenal ulcer was present in twenty-four and a gastric ulcer in two. The ages of the patients, when they first came under observation, ranged from twenty-seven to sixty-nine years. The diagnosis of pyloric obstruction was made by the clinical history, laboratory findings, and roentgenographic evidence of gastric retention six or more hours after a barium meal. In eleven patients there was also a twenty-four, in two patients a forty-eight hour, and in one patient a seventy-two hour gastric residue. At the beginning of the treatment it was almost impossible,

at times, either clinically or roentgenographically, to differentiate between the inflammatory type of pyloric obstruction, which was amenable to medical treatment and the cicatricial stenosis, in which surgery was required. The therapeutic test had to be applied in order to make this distinction.

Therapeutic Methods Employed

The nonsurgical measures which were employed, in the patients under study, were as follows:

1 Ambulatory method A gastric lavage of warm water was given every day then every other day, and subsequently less frequently as the patient improved. Eight ounces of milk, one half an ounce of sweet cream and one dram of sugar were given every two hours. One-half an ounce of olive oil, twice daily, was also prescribed. Then two raw eggs or egg-nogs were added. This diet was kept up for five days. At the beginning of the sixth day two ounces of cooked cereal and three eggs were allowed. On the eighth day four ounces of cereal and two ounces of pureed vegetables were given. On the tenth day the patient was instructed to take four eggs, toast was permitted on the twelfth day. The diet was further increased if the lavage return and the radiographic findings continued to show improvement. Atropine sulphate grain 1/120, twice daily and an alkaline powder

consisting of five grains each of magnesium oxide and sodium bicarbonate or five grains of magnesium oxide and thirty grains of bismuth subcarbonate, or the following resorcinol mixture were prescribed

		Gm or Cc	
R Resorcinol	2		Z ss
Magnesium oxide	4		Z i
Acacia	qs		q s
Distilled water	180		Z ii

M Sig One-half ounce three times daily

Nonspecific protein therapy was also employed

2 Rest in bed This plan was carried out either by means of the Sippy dietetic régime or by duodenal alimentation. In the former, the medication as described above and gastric lavages were used. The duodenal feedings consisted of eight ounces of milk and one half ounce each of sweet cream and sugar, which were given every two hours. Five hundred cc of a five per cent glucose solution were instilled into the duodenum twice daily. Vitamins B and C were also added to the duodenal feedings three times a day. The above medication was likewise prescribed.

The improvement was checked by means of the lavage return, the roentgenographic findings, and clinical progress. Usually a trial of four to six weeks was sufficient to determine whether medical treatment would prove successful. In patients in whom duodenal alimentation was attempted, the fasting gastric aspirate aided in determining the amount of gastric retention. The duodenal tube was also employed as a means of determining the presence of an inflammatory or a cicatricial stenosis. As a general rule, if the metallic bead did not enter the duodenum in seven to ten days, the case was regarded as a cicatricial obstruction, in which surgery was indicated.

Results

Ten patients were treated by the ambulatory method, five by the Sippy plan, and eleven by duodenal alimentation. Twenty of the twenty-six patients (76.9%) are still comparatively symptom free. Four of the patients required further intensive therapy after one year, three after three years, two after four years. Eleven patients did not require

any further course of treatment for a period of five to nine years.

The degree of obstruction, as evidenced by the clinical and roentgenographic findings, did not bear any definite relationship to the successful outcome of medical treatment. In fact, in this series, the patients who have been symptom free the longest, appeared to have the most pronounced degree of gastric retention.

Six of the twenty-six (23.1%) patients had to be operated upon. Four of these patients were apparently well for three years and two for four years. In two of the patients, gross hemorrhage ushered in the return of symptoms. One of the six patients, in whom surgery was required, succumbed to a postoperative hemorrhage. This patient was operated upon at another institution. One patient developed a lobar pneumonia twenty-four hours after operation and although he was very ill, he subsequently recovered and has been well ever since.

The following case reports will illustrate some of the varied clinical aspects which were observed.

Case Reports

CASE 1, which was under observation the longest period of time, illustrates the result of treating a patient by the ambulatory method.

I G, thirty-seven year old male, was first observed October 15, 1926. His history, treatment, and follow-up for a period of five and one-half years were previously reported.⁴⁻⁵ The patient came to the clinic again on November 14, 1934, complaining of rectal bleeding which was due to hemorrhoids. Otherwise he felt well. If he did have heartburn, which occasionally he had, he relieved himself by gastric lavage. He took the alkaline powder whenever he was constipated. He was again seen on June 1, 1936, at which time he stated that he was in excellent health until three days ago, when after eating clams, he began to have abdominal pain and vomiting. He was treated at the clinic by means of a liquid and semi-liquid diet, antispasmodics, gastric lavage, and small doses of alkali. He was discharged on June 13, and he has remained symptom free. An x-ray taken on May 14, 1937 did not reveal any gastric retention (Fig 1).

CASE 2, which was treated by duodenal alimentation, also illustrates the method,⁷ which facilitated the passage of the tube through an occluded pylorus

M L, fifty-nine year old female, was first observed August 7, 1933. She gave a history of periodic attacks of abdominal pain for twenty years. Three months ago the pain became worse and she began to vomit. She also complained of dizziness and weakness. She lost ten pounds in three months. Physical examination revealed an atonic and dilated stomach. The gastric contents showed HCL, 60, acidity, 75, blood, positive, lactic acid, negative, Sarcinae, positive. A diagnosis of an obstructive ulcer was corroborated by an x-ray examination. An attempt was made to treat the patient by means of duodenal alimentation but the tube did not enter the stomach in seven days and surgery was advised. The patient refused to be operated upon. A bead 14F, covered with gauze was attached to the metallic tip, by means of twenty-five cm of English silk #6 (Fig 3). Three days after these were inserted it was possible to institute duodenal alimentation, which was continued for three weeks. The patient made an uneventful recovery and has been symptom free ever since. (Fig 2)

Cases 3 and 4, illustrate the effect that physical exertion or trauma may exert in these patients, irrespective of how long or how short a period they may be symptom free

CASE 3 E A was first observed April 7, 1932. He gave an ulcer history of two years' duration. An x-ray taken on June 4, 1932, showed a marked six hour gastric residue. The patient was treated by duodenal alimentation and was symptom free until December 10, 1935, when, after vigorously shoveling snow, he was seized with a gastric hemorrhage. He recovered from this attack and came back to the hospital on February 3, 1937, for another course of duodenal alimentation because of slight epigastric pain and because he feared that he might have another hemorrhage

CASE 4 J D, twenty-eight year old white male, was first seen April 27, 1932. He gave a typical ulcer history of two years duration. A roentgenographic examination on May 19 and 20, 1932, showed an obstructive ulcer with a six and twenty-four hour gastric retention. He was treated by the ambulatory method and on June 28, the x-ray showed no evidence of a gastric residue. He was symptom free until August 25 when he was brought to the hospital with the history that on the

day of admission he had been operating a floor polishing machine for six and one-half hours. On one occasion the machine became stuck and he pushed it very hard with his abdomen. He broke out in a sweat and collapsed. The patient was operated upon and there was found, what the surgeon stated was the "largest perforation" he ever saw. It was located on the anterior surface of the stomach. A simple closure was done at that time. The patient was readmitted on October 3, for a cicatrized pyloric stenosis, when a posterior gastroenterostomy was performed. He has been symptom free ever since.

CASE 5, while not included in this series, illustrates the most recent case in which the therapeutic test was applied to differentiate an inflammatory from a cicatricial obstruction

J M, twenty-five year old male, was first observed March 4, 1935. He gave an ulcer history. The roentgenographic examination revealed an obstructive peptic ulcer with a twenty-four hour gastric residue. He was treated by the Sippy plan and was discharged symptom free on May 8. He felt well until he began to "eat everything" and in February 1937, started to vomit food which had been ingested thirty-six to forty-eight hours before. On April 2, the x-ray examination revealed a constant scarring of the duodenum, with a gastric residue similar to that observed in March 1935. The question arose as to whether we were now dealing with an inflammatory obstruction or a cicatricial stenosis. The patient was given the therapeutic test. The Sippy plan was used. He again became symptom free and on May 26, only a trace of barium was present at the end of six hours. He was last seen on June 21, having gained in weight and feeling very well. He was cautioned to be careful about his diet and to avoid mental and physical strain if he wished to escape surgery.

Alkali Therapy in Obstructive Peptic Ulcer

It is a clinical fact that the administration of excessive doses of alkali in ulcer patients with or without pyloric stenosis is not infrequently followed by an increase in the carbon dioxide combining power of the blood plasma and a decrease in the blood chlorides. It has also been pointed out that patients with pyloric obstruction, resulting from a peptic ulcer, are potential cases of alkalosis.⁶ It



Fig 1 I G (Case 1) (A) October 22, 1926, immediately after barium meal Deformity cannot be outlined (B) Forty-eight hours after barium meal, marked gastric retention present (C) June 12,

1936, immediately after barium meal Deformity can be visualized Patient was symptom free when this was taken (D) May 14, 1937, no six-hour gastric residue Patient is still symptom free

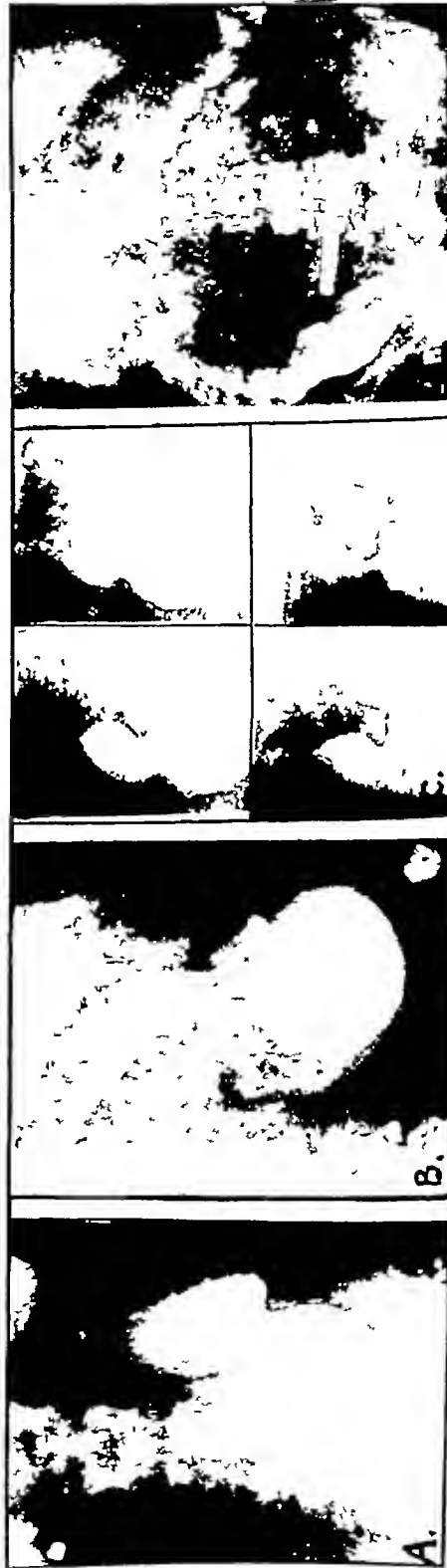


Fig 2 M L (Case 2) (A) August 10, 1933, immediately after barium meal Deformity cannot be outlined (B) Seventy-two hours after barium meal, marked gastric retention present (C) September

16, immediately after barium meal Deformity can be visualized Patient was symptom free when this was taken (D) January 5, 1937 no six-hour gastric residue Patient is still symptom free

was, therefore, deemed advisable to treat the patients in the present series, with comparatively small doses of alkali. This plan of therapy proved very satisfactory, notwithstanding the fact that no attempt was made to bring out acid neutralization. The secretory response was not used as a therapeutic guide. It was interesting to note that in most of the patients, the acid curves and the clinical response did not seem to bear any definite relationship to each other. In determining the gastric acidity, after histamine, similar acid curves were observed, in most of the patients, before and after treatment. Some of the patients, in whom surgery was required, revealed a similar or even less of a secretory response than other patients who were successfully treated by medical means. Fig 4 will illustrate this.

Discussion

A series of patients with pyloric obstruction resulting from peptic ulcer and treated by nonsurgical measures were observed for a period from three to ten years. The methods which were employed and the results obtained have been outlined.

In treating patients with an obstructive peptic ulcer, one must bear in mind, that it is impossible, at times, to differentiate between the inflammatory type of stenosis as a result of edema and congestion due to a probable antral gastritis and a mechanical obstruction due to cicatrization. The therapeutic test may have to be applied to make this distinction. It is a clinical fact, however, that the more edematous the pyloric outlet is, the better the chances for medical improvement, the more cicatrized the pylorus is, the more gratifying the ultimate postoperative results. During the acute obstructive stage it may not be possible to definitely outline the ulcer. When the edema and congestion have subsided the deformity may then be observed (Fig 1, A and C and Fig 2, A and C).

While the ambulatory method and the Sippy plan have been successfully employed in the nonsurgical treatment of obstructive peptic ulcers, the use of the duodenal tube was advocated whenever possible. The reason for this was that

the duodenal tube, with the bead attached, had a prognostic as well as a therapeutic value. It enabled us to decide much more quickly with which type of obstruction we were dealing. The following case report will illustrate this fact.

CASE 6 C K, forty-two year old white male, was operated upon three years ago for a perforated ulcer. He was symptom free until three weeks ago when he com-



Fig 3 Duodenal tube with bead attached, *in situ* (Case 2)

plained of epigastric pain, heartburn, belching, and constipation. The diagnosis of a duodenal ulcer was confirmed by x-rays which did not reveal any six hour gastric residue. An attempt was made to treat the patient with duodenal alimentation. Although the roentgenographic examination did not show any six hour retention, the tube with the bead attached did not enter the duodenum in seven days. Surgical intervention was advised. The patient was operated upon January 23 1937. The operative findings were as follows: The pylorus was patent, although numerous adhesions from this region to the liver, gall-bladder, and the omentum were found which may well have caused some degree of mechanical obstruction. A moderate sized area of induration was found in the posterior wall of the first portion of the

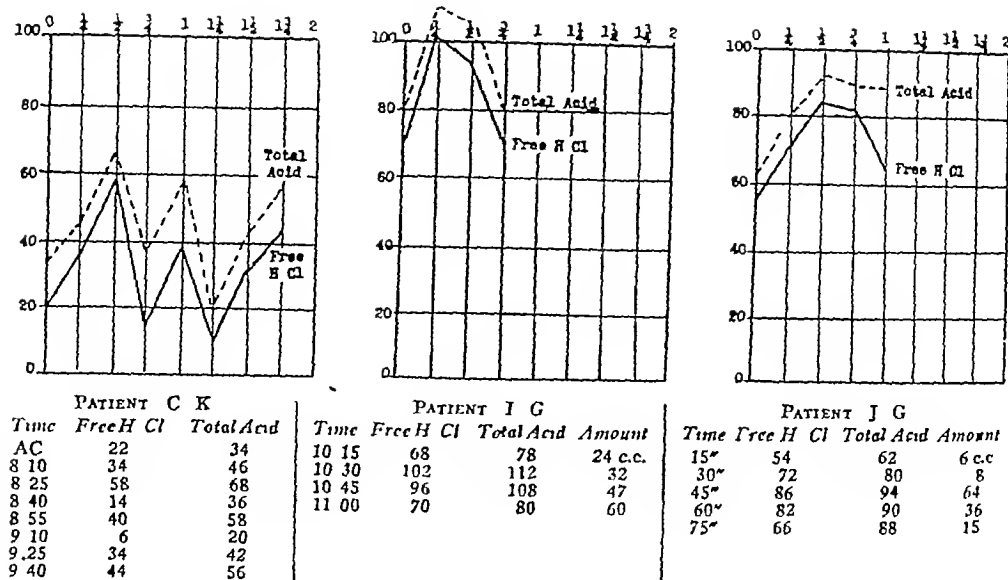


Fig 4 (A) Secretory response after histamine, January 20, 1937, chief complaints were slight epigastric pain, heartburn, and vomiting. Posterior gastroenterostomy performed January 23. (B) Secretory response after histamine, May 20, 1937. Patient successfully treated by nonsurgical measures and has been over ten years. Patient is still symptom free. (C) Secretory response after histamine, May 26, 1937 during acute exacerbation of symptoms, chief complaints were severe abdominal pain and vomiting. Posterior gastroenterostomy performed June 1.

duodenum, two cm from the pylorus. A posterior gastroenterostomy was performed.

In this series of patients, excessive alkali therapy was not employed. By using comparatively small doses of alkali in these obstructive ulcer patients, good results were obtained and the danger of alkalosis was avoided.

The factors which seemed to favor recurrences in some of the patients were dietetic indiscretion, mental or physical strain, and trauma and respiratory infections, though seemingly mild. Hence, ulcer patients must be impressed with the avoidance of these, in so far as it is possible.

In patients with pyloric obstruction, resulting from peptic ulcer, the possibility of malignancy must be considered. In duodenal ulcers this disease is not as frequently encountered as in gastric ulcers. It is beyond the scope of this paper to enter into a discussion as to whether these ulcers are malignant from their inception, or whether they subsequently undergo this change. In obstructive gastric ulcers, especially those located in the

prepyloric region, it is very difficult, at times, to definitely rule out the presence of malignancy. Recently, one of these cases was observed in which a distinction between benignity and malignancy of the stomach could not be made at operation. It is also a clinical fact that these malignant affections may even show temporary symptomatic improvement after medical treatment. In doubtful gastric lesions, a careful history, the secretory response after histamine, a gastroscopic examination in addition to a roentgenographic study, will prove to be of invaluable assistance in establishing the diagnosis and course of treatment. This aspect will be more fully discussed in a future article.

Summary

1 A series of twenty-six patients with obstructive peptic ulcers, treated medically, were observed from three to ten years.

2 Twenty patients (76.9%) are still comparatively symptom free.

3 The nonsurgical measures which were employed have been outlined

4 Acid neutralization was not neces-

sary to bring out clinical and roentgenographic improvement

77 E 79 St.

References

- 1 Einhorn, Max *Amer Med*, June 3, 1905
- 2 Lahey, F H. *Surg Clin of No Amer*, 6 695, 1926
- 3 Lahey, F H. and Jordan, S M N Y S J or Med, 27 60, 1927
- 4 Rafsky, H A. *Med Jour & Rec*, 132 187, 1930
- 5 Rafsky, H. A., Schwartz, L., and Kruger, A W *J.A.M.A.*, 99 1566, 1932
- 6 Jordan, S M and Kieffer, E D *J.A.M.A.*, 103 2004, 1934
- 7 Einhorn, Max *The Duodenal Tube and Its Possibilities* F A. Davis Co, Phila p 106, 1926

ARE MEDICAL SOCIETIES CANCER-SHY?

Medical societies are criticized by the Division of Cancer Control of the State Department of Health for their indifference to the problems of cancer treatment. In its twenty-sixth annual report the division observes that lay groups are willing to attend lectures by staff members trained in cancer research, prevention, and cure, but—

"The medical societies are rather reluctant to devote some of their meeting time to the discussion of cancer. It is a recognized fact that cancer perhaps does not enter into their economic problem as much as some of the other diseases, yet cancer ranks second as the cause of all deaths and demands more time from the profession than it is receiving at present."

Efforts to interest professional men and women in the disease have failed dismally, according to the report.

"Two courses were given during the past year at county medical societies, one in conjunction with the Erie County Medical Society and one with the Monroe County Medical Society," the report stated further "The courses were in the nature of an experiment. The courses were offered free of charge to any physician and covered the entire cancer problem. The lectures were illustrated by lantern slides and, in some cases, by actual specimens

"It was the original intention to extend these courses to other comparatively large centers of population, if they proved successful at first.

"However, we were disappointed at the attendance at these lectures, again demonstrating the fact that the practicing physician is not greatly interested in the subject of cancer. Out of a possible 1,000 physicians in Erie County the average attendance was only 30 and in Monroe County the average was about 40. Unless there is a decided demand, these courses will not be continued."

Lamenting the fact that general practitioners will not attend meetings devoted to cancer, the report continued

"We hope, by circularizing the medical profession with short pamphlets on the essentials of the cancer problem as it relates to the medical man, and also by calling attention to his moral responsibility in reducing the mortality, to impress upon him the fact that the fate of the cancer patient is in the hands of the first doctor who sees him."

To counteract the indifference of physicians and dentists, the division has been compelled to resort to lay education.

"We believe popular lay education," said that part of the report prepared under supervision of Dr. Louis C. Kress, "presented in a manner that is most attractive and that the average person will understand, will have great influence in suppressing this disease because it is a known fact that early cancer in most instances responds more readily to treatment than does the far-advanced type."

One of the major purposes of the lay education program will be to allay the fear of cancer. So widespread has the dread of the disease become, that the state will be forced to take steps to circularize authentic information on the problem.

Dissemination of knowledge on cancer to the general public will be the major task of 1937, in the opinion of those entrusted with directing the state's campaign against the disease, the pamphlet reported.

"More consideration must be given to lay education, especially in the rural districts where the advantage of lectures on medical subjects is not usually available."

In addition to the lectures, exhibits will be given throughout the year at county fairs, high schools, colleges, farmers' meetings, luncheons, church and study groups of both men and women, fraternal organizations, voluntary firemen and members of home bureaus and granges.

Does a doctor doctor a doctor according to the doctored doctor's doctrine of doctoring, or does the doctor doing the doctoring

doctor the other doctor according to his own doctoring doctrine?—*Nebr State Med Jour*

SHADOWS IN THE MIRROR OF HEALTH

T WINGATE TODD, MD, *Cleveland, O*

*Developmental Health Inquiry of the Associated Foundations Anatomical Laboratory,
Western Reserve University*

In his *Natural History of Selborne*, Gilbert White tells of holding in his hand a stilted plover, a bird with no back toe and therefore, he writes, "liable, in speculation to perpetual vacillation"¹ This attitude of vacillation so characteristic of all peoples and governments since the War shows signs of giving way before constructive thought We have at least learned better how to deal with unemployment The boggy that public expenditure on relief is economically unsound has been laid Unemployment has been shown to be no respecter of nations but a world-wide disease whose remedy must be international The social services are more firmly based and more widely spread The great leisure movement with shorter hours and vacations on pay has steadily advanced We have gained some glimpses of new monetary technic and have abandoned some misconceptions on wage policy² There is a new outlook on how adults with their experience of the world should bring up boys and girls The citizen of tomorrow must be healthy and physically fit There is almost an international competition in devising systems to ensure that growing children shall become exemplars of manhood and womanhood³

Canon Paton-Williams reminds us that the people who make quarrels are not the healthy people People make quarrels when they are run-down, nervous, and on edge with emotion so pressed down that it must break up or break out Unless we provide for future generations an adequate means of liberating repressions in the strain of modern life, the future will be even darker than the present.

Sir John Simon points out that the ideal of physical fitness is not a bad ideal to add to those of honor, loyalty, and service Ideals are essential and must be firmly established in youth if we are not to build up a nation of crabbed, selfish, cynical citizens later on

Oliver Stanley speaks of three fundamental principles of education *First*, the

child is an organic whole *Secondly*, the teacher is no longer a person appointed to train or instruct children but a supervisor whose duty it is to promote the natural growth of his pupils *Thirdly*, environment is one of the most important factors in education.

In the new *Handbook of Suggestions for Teachers* there is the clear enunciation of a shift in emphasis in teaching from the subject to the child⁴ This means that the curriculum is dictated by the nature and capacities of the child and not by any preconceived code of regulations It means also that the subjects in the curriculum have changed in order of importance. Now health and physical training come first, then music and practical subjects, and lastly intellectual exercises and mathematics The order follows the development of the child, first the physical, next the concrete, and then the abstract. The teacher is the interpreter to his pupils of the world and of life as well as of knowledge

On one of the buildings of that great rock, the Acropolis of Athens, the city where Democracy was cradled and all men first stood equal before the law, there is the inscription "Athens of the Athenians, the Free" It was Athens inventing the notion of liberty in contrast to the totalitarianism of Asia, of Africa, and of the Peloponnese That it failed at length is no slur on the genius which framed the thought Great as was his passion for Egypt, my late Chief, Sir Grafton Elliot Smith writes in the epilogue to his book on *Human History*, "When man began to devise civilization he became entangled in the shackles of the theory of the State, which he himself had forged It remained for the Greeks to remove the shackles and to restore to human reason the freedom it had lost. Ever since then the history of the world has been a conflict between the nationalism of Hellas and the superstition of Egypt"⁵

It is the bane of liberalism that it does

*A Banquet Address of the Medical Society of the State of New York,
Rochester, May 25, 1937*

succumb from time to time to the totalitarian theory even as it has in many countries during these last twenty years. The contribution which Greece made to liberalism of thought was not native but was imported along with the God Apollo who entered the Greek Pantheon from the Unshapen Land in the bleak northwest, the road to which from Athens lay past Thebes and the Copaic Lake, up the Vale of Cephissus, beyond the peaks of Ceta and Pindus, over the rich Thessalian plains, the Thracian Mountains, the Ister river, and the dreary Scythian waste. Apollo was the Teutonic God Baldur, the god of the sun, of mental as well as physical light, the god of Medicine, of prophecy, of music, the god of civic constitution and of the flocks and herds, Apollo the clever, the young, the strong, and the free. Delphi was his shrine city and on the slope of Mount Parnassus hard by were built the oracle, the theatre, and the stadium for the god of light and medicine was also leader of the Olympian orchestra and chief of the athletes, the god at once of health and strength and social adjustment. It is well for us to remember this in these days when the ancient principle of life of which Apollo was the incarnation is once more emphasized as the ideal basis for the Children's Charter.

"The average person," writes Macpherson Lawrie, "is not particularly preoccupied with the fact that malignant disease may kill him, nor is he seriously concerned with death. It is not hardened arteries or damaged kidneys or diabetes which people dread. The average person does not think about his health. But he does think about the impression he will make, his social prestige, his capabilities, his ability to beat a neighbor at a game, his chances of promotion, and his appearance. And there are very few men and women of our acquaintance, whatever they may say, who, in their hearts, would not like to meet their social circle with a greater confidence, their occupation with more proficiency, their embarrassments with calmer self-assurance, their domestic life with more complacent certainty, and the world in general with that additional cheerfulness and vigor which renders life a vivid actuality rather than a passage of existence."¹⁰

Today also disease has changed. It no

longer slays ruthlessly in epidemics but insidiously cripples hearts, hardens arteries, ruins teeth, warps and stunts development, shatters nerves, and produces morbid moods and manners which destroy or cripple confidence, initiative, and efficiency.

We must not wait the establishment of actual structural defect or organic disease before we strike. But we as physicians must carry our campaign further so that we grapple with the early stages of disability the indications of which are lassitude, apprehension, and despondency.

All very well to speak like this, reiterating truths which each one of us will readily acclaim. But how can such a scheme be practical? How shall we lock the stable door when we are not summoned till the horse is stolen or at best the horse thief is already in the yard. Preventive medicine of the future must devise ways of reaching and solving the problems of community well-being before disorder creeps through the masses, blunting their initiative and enthusiasm, undermining self-reliance and determination, dulling their hopefulness and robbing them of fortitude, tolerance, and self-control without which no modern community can expect to prosper.

This cannot be done unless we, the physicians who hold the balance between social order and chaos, reeducate ourselves. Our training has been to recognize established disease mentally or physically detectable, the last grim stage of a tragedy which no longer can be averted but involves besides the victim himself those who are near and dear to him. This attitude of Medicine and Philanthropy is obsolete, it encourages suffering, it distracts attention from the inefficiency of the employed and fastens it on the unemployable, it exaggerates the importance of the simple-minded or the nervous wreck and ignores the restless, the discontented, the impatient, the tired, the lethargic, and depressed.

Our daily professional duties do not force this newer viewpoint upon us, they give us no experience or opportunity to exercise our alertness in inquiry as a rule. Nor will they till both we and the public clearly recognize the value of periodic examination and until that examination is changed from the routine clinical inspection of today for the systematic investiga-

tion of somatic health as well as of organic efficiency

We have been taught to think in terms of structural pathology and the inheritance of physical defect. Treatment has been adapted to the compensation of defect and the eradication of disabilities but our eyes are already set on the restitution of constitutional health before long continuance of morbid processes has resulted in permanent deficiencies of structure. This transference of attention means detection of disability in the earlier or chemical stage of disordered metabolism and a study of the inheritance of undue sensitivities to the food we eat, the air we breathe or the clothes we wear. Problems of immunology and of allergy thrust themselves upon us with ever-increasing insistence.

The vista of Child Welfare of the future is not to be seen in the mirage of the height-weight-growth basis fundamental heretofore but through a portal framed by freedom from specific sensitivities. Beyond this portal we shall see children endowed with potentialities of growth and protected by scientific understanding so that they do no droop or suffocate in that care which brings strength and freedom to others.

We are on the threshold of a new scene where familiar objects appear in new settings. Food which was meat and drink now reveals itself as nutriment or poison. Illness formerly judged by its active symptoms now discloses itself in its initial fatigued or finicky stage. Children with a hidden allergy hitherto struggled through situations at the cost of great constitutional strain which can be avoided by early recognition and care. This struggle was intensified by the failure to recognize the changing manifestations of allergy as age increases.

The 1936 report of the Mixed Committee of the League of Nations on the problem of nutrition asserts that in no country in the world does the whole population attain the physical standard desirable, so widespread is defective nutrition. Ignorance of diet is prevalent and even in the wealthiest countries defective, inadequate, and ill-considered nutrition exists. Essential protective foods are too expensive for working class families.⁷

One particularly well-conceived and statistically controlled inquiry has been

carried out on sixty-nine families in Newcastle-upon-Tyne in England. Of these thirty-eight were unemployed, twenty-eight employed, and three were widows' families.⁸ Some measure of selection was inevitable as families likely to be noncooperative were obviously avoided. The data from families which were evidently intelligent show little indication of generally extravagant buying or of serious decline in home cooking. All consumed fresh meat and all but one had fresh vegetables. All the employed spent thirty-six per cent more money on the purchase of food than the unemployed but the amounts of energy and protein obtained per penny spent were twenty-three per cent higher in the unemployed than the employed. The unemployed therefore purchased three nutrients at lower cost than the employed. The greater cost of food in the families of the employed seems to have been due to the purchase of cakes, fresh tomatoes, butter, fresh milk, bacon, and boiled ham.

Under these circumstances, no differences are to be found between the heights and weights of children and women in the several groups though the employed men were on the average 13.25 pounds heavier than the unemployed, a difference apparently resulting from muscular wasting accompanying lack of exercise rather than deficient intake. Thirty-two per cent of the women of unemployed families however were enemic as compared with four per cent of those in employed families.

It is evident that the conventional criteria based on structure, namely, height and weight are inadequate to express the deterioration of constitution consequent upon financial stringency. Evidence to be sought in the more refined and delicate chemical methods of detection of which the anemia diagnosis stands as the index in this inquiry. There is however another criterion, namely, that of mortality. An earlier record from Stockton-on-Tees shows a doubling of the death rate largely due to respiratory disorders in the new housing estates where the unemployed have to pay a rental approximately twice that in the old housing districts.¹⁶ This carries suggestive although not conclusive evidence of the effect on nutrition and health produced by forced expenditure for people on the poverty line.

Our problem is then not to be solved by reference to established criteria of bodily size, but by standards still to be developed having for their aim the measurement of tissue health. That we have indeed set out upon a program of tissue health is evident in recommendations now customarily made upon diet. The traditional diet, comprising meat, potatoes, bread, and sugar, has already been substituted by diets for fattening, reducing, active or sedentary occupations, diabetes, allergy, and high blood pressure. What is most urgently needed today is the construction of diets which return to each child those essential elements lost through avoidance of foods ascertained to be specifically harmful to that child. What we need is dependable experimentation on food building, food substitution, and food adjustment. Food building is necessary that optimum nutrition be obtained, food substitution peculiarly appropriate to ascertained sensitivity, food adjustment as the hidden sensitivity successively modifies its mode of expression.

It has been my good fortune, these past seven years, to make an intensive study of the growth and development of well children from cooperative families among Cleveland's economically secure citizens. This longitudinal study has been carried out under the combined auspices of several local and national Foundations, but the particular phase which absorbs our attention at the moment is presided over by the Cleveland Foundation under its Coulby Fund. This apparently anomalous devotion to the study of well children, of a Fund designed to assist the sick, crippled, and handicapped, requires a passing explanation. The decision of the Cleveland Foundation to carry on this work was the result of our unexpected and arresting discovery that these well children, all of whom are under the regular supervision of pediatricians of experience, suffer more or less from unheeded, unacknowledged or unrecognized handicaps which sap the constitutional strength, resistance or integrity although they do not express themselves in the well-recognized symptoms of established disease. Indeed, some of the children ultimately develop hay-fever or other definite disabilities, but the great majority display nothing more than feeding problems in infancy, seasonal fluctuations in weight,

vagaries of growth, mild persistent eczema, dry skin, hives, food idiosyncrasies, stuffy noses, repeated colds or emotional disturbances. Our serial examinations, methodically carried out over so long a period on this unchanging group of children, enable us to catalog the successive indications of interference with optimum progress in growth and development and in the maintenance of health.

We note that the child who has difficulty in adjusting to the diet of infancy develops eczema in his early months, becomes what is known as a wet baby before his first birthday, suffers from stuffy nose, resorts to persistent thumb sucking or other mouth habits and has adenoids removed during the preschool period, displays defect of vision, usually myopia or astigmatism, in the same phase of childhood, is recognized as highly strung and hyper-reactive, begins to lag in increments of height or weight, and may develop frank seasonal hay-fever ultimately extending to perennial disability. Yet such a child is not recognized as constitutionally sick. He may or may not impress his physician or even his parents as requiring active medical intervention. But he does not enjoy that full measure of exuberant health which is his birthright, and the long-continued subtle undermining of his health brings in its train difficulties of adjustment for which the remedy may be sought in forcible social contact by way of nursery school. In any case, his happiness is prejudiced in school as well as home, giving his parents constant anxious concern which often expresses itself in over-protection in evitably enhancing his social handicap. We must bring ourselves to realize that educators are dealing with organic substances, and where training and education fail, they fail not so much because of an inherent lack of brain capacity as because the child, perpetually at loggerheads with life, vainly kicking against curtailment, is yet deficient in that healthy vigor which would end his fancied restrictions and set free natural expression. Rebellion and misfit, vague dissatisfaction, and childish unhappiness are less due to original sin than they are to stuffy nose, deranged stomach, excessive fatigue or the emotional imbalance of sub-clinical sickness.

The objective criteria by which unacknowledged sickness of this type can be recognized require a study only to be car-

ried out by the serial examination which is undertaken frankly from the point of view of prevention and not imperatively required by the existence of actual disease

At each examination the child's progress as well as his current state of health is noted. This is done by ascertaining the increments of growth since the previous examination. Status in height and weight means little. A child may be tall or short, heavy or slender for his age. His deviation from average however may be due not to recent failure of adequate increment but to a poor start or to interruption of adequate progress long before and never compensated. The records of our statistician Miss Simmons, for example, show that sixty per cent of an exploratory group of our children shortest at birth are still shortest in stature at four years, forty per cent of those tallest born are still tallest at four years. These are fair figures allowing for the difficulty of measuring the newborn whose knees may or may not completely extend. When however the comparison is made between stature at eighteen months and five years, we find that eighty-five per cent of both sexes maintain unchanged their rating of being tallest or shortest. The idea of later compensation for a failure in increment during childhood is a hopeful one, but no reliance can be placed on the hope. Nevertheless, although the previous failure must be discounted, it does not follow that failure of increment need continue. It is reassuring to parents as well as to the physician to learn from the serial examination that growth, previously interrupted, is again continuing without hindrance. Growth indeed is an all-or-nothing principle, it is an effective and sensitive measure of health. Properly analyzed, it is seen to show interruptions of progress rather than changes in tempo in children who are definitely outside the normal range in stature. The achondroplast, for example, does not grow at a tempo different from that of normally formed children. Trunks grow at the regular rate but limbs, irregularly, at a quarter the normal rate. In cretins the rate of growth is diminished to approximately one half regular rate. Children who in later years show gigantism grow in trunk and limbs at a rate greater than normal, and those who eventually become eunuchoid grow at a rapid rate in limbs but at a very

low rate in trunk. Setting on one side these marginal members of the community, the growth rate in children is regular and practically uniform, interruptions being registered as scars, transverse line or scorings on the bones. The x-rays of their limbs made at these serial examinations show the interruptions and, growth being uniform in its rate, we can ascertain by measuring the distance of these markings on the bones precisely when each interruption occurred. They are the tall-tale evidences of temporary constitutional handicap, marking the winter of growth like the rings on trees.

But the x-ray gives us much more than the mere record of disturbances in growth. It gives us information on tissue health paralleling the well-recognized clinical criteria of organic efficiency now employed in routine health examinations. Since seventy per cent of the iron in the body is found in the blood, a blood examination gives a useful approximation of the iron content of the body.⁸ It is the x-ray however which gives corresponding information on the mineral store for ninety-nine per cent of the calcium of the body is maintained in the bones.⁹ While skill and experience enable us to hazard an estimate on minor fluctuations, a drop of twenty-five per cent in bone mineral is distinguishable at a glance on the roentgenograms. An x-ray of the hand should therefore always accompany a blood estimate of calcium and phosphorus for while the blood examination gives more or less accurately the amount of these minerals in transit, the x-ray enables us to assess the amount in store. An x-ray of the bones in the estimate of calcium is then the proper counterpart of a blood examination for the determination of available iron.

Muscular tone and the composition of subcutaneous tissue should not be left to the uncertain estimate of "turger" or even the calipers in the ACH index.¹⁰ A roentgenogram of the hand, especially a lateral roentgenogram, shows definitely the degree of density of muscular tissue. It is our experience that children with light muscular shadows fatigue easily. Accompanying proneness to muscular fatigue is proneness to mental fatigue with its inevitable restlessness, impatience, and irritability. Those children show a standing height perhaps twenty-five mm or even more less than

their horizontal length. Poor posture is due less to habit than to constitutional debility.

Subcutaneous tissue, whatever its thickness, which is the proper criterion of nutrition, should be clear in the x-ray. Density of subcutaneous tissue means water-logged conditions and edema from defective fluid metabolism. This is found in periods of active allergy, more particularly in sensitivity to food allergens ill-defined by the skin tests, but also accompanies severe pollen sensitivities. A roentgenogram of the elbow is best suited for estimates both on subcutaneous tissue and skin.

Skin in infancy is thin. It increases in thickness in later childhood and should be moderately thick in healthy young adult life, thinning once more in age. But always it should be clearly defined from subcutaneous tissue on the x-ray and its surface should be free from edematous wrinklings often found near the wrist.

Before we leave the x-ray, mention should be made of its value in assessment of the physical development of the child. This is a subject on which I have been speaking and writing for ten years and the final result of our ten-years study on the hand as a criterion of physical development is now in the Press under the title an Atlas of Skeletal Maturation. I will therefore pass lightly over this subject mentioning merely that no rule-of-thumb method of measuring carpal area gives the faintest reliability, whereas assessment of degree of ossification of epiphyses by reference to standard x-rays is a dependable guide to the progress of the child in his general bodily development or maturation.

Roentgenograms of the head taken by the standardized Bolton technic, devised by my colleague Dr Broadbent, permit one to measure accurately the growth of the face as well as development of teeth, and give information on adenoids, tonsils, auditory tubes, turbinates, and paranasal sinuses. Again I shall not do more than direct your attention to these opportunities now available for the accurate and quantitative assessment of tissue health and growth progress in the face as Broadbent and I have already published numerous articles on the subject.^{11 13} I would however emphasize the fact that, in infancy when the constitution is most susceptible to disturbance, it is

the face rather than any other part of the body which registers permanent damage through interruption of facial growth, a damage which shows little tendency to repair and is forever afterwards merely compensated by structural modification.

In the course of one address, already grown too long, I cannot do more than bring to your attention the increasing opportunities now at our disposal for early and clear appreciation of sickness, especially in childhood, while it is still masquerading as proneness to fatigue, a highly-strung emotional nature, vague respiratory or gastrointestinal weakness, non-fulfilment of intellectual potentiality, talents or powers of application, reduction of energy, poor weight gain, eye strain, sluggish mentality or unacceptable social behavior.

And having told you of these things, let me put up a plea on behalf of the children, now growing up in days of harassment and distraction, showing in their attitudes, their dispositions, and their physical structure those evidences of menace to their future health, their future happiness and future usefulness. Happy are we who grew up in those unhampered days before the War came to chill and constrict what it did not destroy. Let not our children be marred in their physical powers of resistance, in their application to duty, their balance of mind among conflicting attractions of dubious value. Some will extricate themselves, hardy souls, facing with a will the risk of taking a way of their own like Cinderella in *Barrie's* play with nobody to tend her, little Cinderella with her watering can carefully bringing up herself.¹⁴ Some will be brought perhaps by the more virile kinds of sport as near as they are ever like to come to the thrill of high adventure of the human spirit. Others will eddy in eddying dust all their days, blown round and round by adventitious gusts of sentimentalism and fashion.

In this aim we shall succeed if we are able to see the whole great vision with the mind at the instance of some fragment seen by the eye. "It is essential" as an old hero of mine, C. E. Montague,¹⁵ once wrote, "to graft upon the bodily sense of sight a special kind of imaginative energy, so that when the fit eye has gone as far as it can, its work is taken over and carried on without a break, so that, when later you try to

remember, you cannot say where physical perception stopped and where mental vision began—all you know is that between them they have left you the memory of expanses greater than bodily eye ever saw, and also

more urgently real than imagination alone could ever frame, this is the key of the garden "

2109 ADELBERT ROAD

References

- 1 Lowell, J R. *My Study Windows* p 3, 1886
- 2 Butler, H. *Report of International Labor Office*, 1937
- 3 *Manchester Guardian Weekly*, 37 333, 1937
- 4 *Handbook of Suggestions for Teachers*
- 5 Smith, G Elliott *Human History*, p 463, 1930
- 6 Lawrie, M. *Noture Hits Back*, p 5, 1936
- 7 League of Nations. *The Problem of Nutrition Vol 1, Interim report of the Mixed Committee on the problem of nutrition* League of Nations Publications, II, Economic and Financial, II, B 3, 1936
- 8 A study of the diets of sixty nine working class families in Newcastle-upon Tyne. *City Health Dept publication*, Town Hall, Newcastle upon Tyne 1
- 9 Sherman, H C. *Chemistry of food and nutrition*, 5th ed., pp 249-253, 1937
- 10 Franzen, R and Palmer, G T. *Child Health Bull*, 10 26, 1934
- 11 Broadbent, B H. vol 1 45, 1931
- 12 Todd, T W and Wharton, R. E. *Am J Anat*, 55 97, 1934
- 13 Todd, T W. *Internat J Orthodontia* 22 321, 1936
- 14 Barrie, J M. *A Kiss for Cinderella* p 106 1920
- 15 Montague, C E. *The Right Place*, p 136, 1936
- 16 *Manchester Guardian Weekly* 28 293, 1933

"PEP PILLS" OF BENZEDRINE SULFATE

College students have been using "pep pills" of benzedrine sulfate to help fight off sleep and fatigue when preparing for exams, and the practice has spread so widely that warnings have appeared in *Time* and in various college publications telling of their dangers. Cases of collapse, fainting and insomnia have been reported to the college physicians.

Their effect is like whipping a tired horse, remarks the *Journal of the AMA*—the eradication of fatigue and the stimulation of mental activity cannot be produced for any appreciable period without subsequent periods of retribution. The *Journal* points out that benzedrine differs primarily from other sympathomimetic amines that are used primarily for their vasoconstrictor actions in the extent of its ability to produce certain effects on mood and fatigue. These differences make it especially important that the drug be used only under a physician's direction.

There is as little excuse for employing it to avoid fatigue and sleepiness during a temporary period of stress and strain as there is for using morphine to produce sleep after that period is over. Physicians in a position to do so may issue warnings of the danger of employing the drug in this manner. The druggist too has an opportunity to demonstrate his cooperation with the medical profession by refusing to sell the item except on prescription.

Unfortunately, at one of the university cities where the drug has been obtained it has been purchased principally from the drug stores of a large national chain whose owners are apparently more interested in

the immediate profit than in the ultimate effects on the purchase. The manufacturers, on the other hand, appear to be anxious not to have the drug fall into disrepute through misuse, since it has been presented for consideration by the Council on Pharmacy and Chemistry of the A M A.

Benzedrine sulfate thus becomes one more example of a drug which is useful in a limited field of therapeutics but which has been diverted to uncontrolled use by the public for related, but not similar, purposes. If the situation is to be remedied, and it certainly must be as soon as possible, the manufacturer, the druggist, the student health authorities, the college officials and the physicians must cooperate in preventing the use of this drug by students, who through ignorance may be harming themselves, at least temporarily.

It is chiefly the ignorant who try such self medication, not realizing that a drug can never substitute for knowledge or intellect. The drug is too new to pharmacology and experimental medicine to warrant any prediction as to possible permanent harm that may result from its continued misuse.

This drug is one of a group which is contraindicated in certain circulatory conditions, especially hypertension. Some persons have an idiosyncrasy to the drug, which makes its use by them inadvisable. Thus far the reports of difficulties encountered with the drug have arisen from two midwestern campuses. Physicians may well keep this drug in mind when encountering cases of fainting, exhaustion, and collapse.

THE EPILEPTIC SCHOOL CHILD

How may we Understand and Treat Him?

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The purpose of this paper is critically to take stock of present-day practice in public schools relative to the understanding and handling of the epileptic child

The facts upon which the circumstances of this formulation evolve are derived from replies to a questionnaire sent to some forty school physicians of cities and villages in New York State. Nineteen replies were received and will form the basis for the opinions and facts concerning the epileptic child's present-day status as herein presented

By way of contrast, it is interesting to note the attitude of Wood and Rowell^a who in 1927 expressed a pessimistic attitude toward the outlook for the education of epileptic children in public schools. To their mind no epileptic child should be permitted to attend a regular school as they felt it would be demoralizing not only to the child but to others because of the need for competent supervision as well as the fears and hazards of other pupils. Moreover, it was their opinion that retaining an epileptic child in a public school made him unduly an object of interest which gave rise to self-consciousness and this was regarded as an excitant to seizures. These authors also envisaged the hazards of transportation to and from school as well as the lack of facilities for his care in the classroom.

In contrast to the above opinion of these specialists in school health education we find a marked shift in opinion and practice throughout the schools of our State. To the writer this seems all the more surprising since not long ago a superintendent of a State Institution for Epileptics expressed to him the opinion that every child so diagnosed as an "epileptic" should receive the advantages of institutional care and treatment. He felt that this was fairer to the child in view of a more understanding and trained personnel to care for his peculiar needs as well as from the standpoint of happy and effective socialization. This specialist was

somewhat pessimistic concerning the future communization of such children since deterioration seemed so imminent in most cases.

We shall first present the facts of the survey of nineteen representative city and village school systems (ranging in school population from 1,179 to 16,145—average of 5,862) in New York State in response to the following questions relative to epileptic school children during the past five years

- 1 Number of cases per year
- 2 Criteria for exclusion and exemption from school
- 3 Diagnostic criteria for epilepsy
- 4 Ways in which school cooperates with the family physician, hospital, and other treatment agencies
- 5 Medical methods of treatment
- 6 Educational methods of treatment.
- 7 Ways in which cooperation of parents is enlisted.
- 8 Criteria for institutionalization

The above collected data is summarized as follows

1 *Average number of cases per year per school-age population* during the past five years is seven per 10,000 (range 0-19%). This percentage, although statistically insignificant is from the standpoint of school management perhaps more distressing and a more acute type of problem than any other facing the school personnel. Likewise, from the point of view of the home with respect to expert advice concerning education, medical treatment, environmental care, and supervision, it is of quintessential importance.

The grade range of epileptic pupils extends from first grade to senior year in high school. The incidence of epileptics per grade has not been determined. The total number of epileptics at present in school in the above nineteen school systems is sixty-four, a rate of six per 10,000 or 0.6 per cent. The percentage prediction of epileptics, however, would indicate the presence of some seventy-eight instead of sixty-four epileptics at present recorded.

2 Criteria for exclusion and exemption of epileptic pupils from school are

1 Repeated seizures in school (Nocturnal seizures and others occurring in out-of-school hours seem to cause little concern as far as the school is involved, although parents will frequently bring such children to the attention of the school physician in order that their condition may be evaluated and counsel given.)

2. Severity of seizures is important as well as their frequency. Obviously, the petit mal attacks, from the point of view of classroom management, are less disturbing than the grand mal type.

3 Time of seizure. Those occurring in the morning and early afternoon are apt to be considered more troublesome than those taking place in the late afternoon or evening.

4 Intellectual ability at so low a level as to be unable to profit by public school instruction, even in special classes.

5 Difficulty in handling a patient during attack.

6 Too great an interference, danger, or injury to others.

Certain school physicians felt that it was unfair to exclude any pupil from school as long as there was no greater interference with the school routine. One city school had a standard for exclusion of two spasms or more per month. This same school system makes the practice of excluding all having an I.Q. below sixty-five who have frequent seizures. Certain schools were concerned about the efficiency of treatment in relationship to frequency of attacks. There was a tendency not to make a decision for exclusion until attacks were brought under competent medical treatment.

3 With respect to *diagnostic criteria* there was expressed a general wholesome reluctance to make the diagnosis of "epilepsy" until the suspected child had been examined by the family physician or a specialist in psychiatry or neurology. Although at times the only description of the attack was that which could be given by the classroom teacher, yet every attempt seemed to be made by the school physician to see the child in such a condition himself. Loss of consciousness was considered essential for the diagnosis of epilepsy although in the petit mal type the momentary nature of the absent look and vacant stare puzzled the untrained observer, thus confusing this illness with behavior problems such as day dreaming, inattention, and lack of cooperation. The Medical Inspection Law is expressed in the following school physician's statement, "We do not diagnose or treat in school, except in cases of accident or emergency."

In certain cases, hospitals, clinics, and child guidance clinics are utilized and cooperate in the suspected diagnosis and in outlining the treatment. Most cases are diagnosed elsewhere than in the school. However, should the first attack occur in school, a full description is given to the parents for the family physician, specialist or clinic. Only after a thorough study of the history and examination is made, and that from the point of view of excluding all possible known causes for seizures, is a diagnosis of "epilepsy" made. Such diagnostic certitude may take for its realization a matter of several weeks or months. In any event, an attempt is made to confirm the diagnosis by utilizing the services of one or two physicians who have seen the patient in an actual attack.

The diagnosis in certain instances seems to be confusing for a time, especially in the petit mal cases. The differential diagnosis between hysteria, habit spasm, and mental deficiency has to be considered. On occasion, resort to observation in a local hospital over a period of time might be utilized to clinch the diagnosis. Although the statistical data is too meager to be unduly significant, only some twenty-five to fifty per cent were excluded from public school.

4 *Ways of cooperating* included referral of all suspect cases of epilepsy to the family physician, hospital or child guidance clinic, or specialist. At times, winning the parents over to such an examination seemed to be difficult owing to their emotional blindness to admit anything "wrong" with the child. Usually, however, the parents are quite cooperative. Frequently, consultation of the parent with the school physician occurs before seizures take place in school in order that a proper understanding and handling of such exigencies may be in order. The school nurse or public health nurse calls upon the parents to explain the condition of the epileptic child to them and to assist the parents in following through the medical treatment outlined by the family physician, specialist, or clinic. Of particular value is nursing service when the parent refuses to take the child to the family physician or clinic for diagnostic treatment service.

In cases of recommended institutional care, the school physician and nurse are of significant service. One city school reports that the other children in the classroom, teachers, janitors, and principals cooperate in handling the child during attacks and see that he is returned home

safely. Cooperation in carrying out directions concerning special diets is a difficult matter to attain.

5 The school physician does not undertake *medical treatment*. Wherever possible this is referred to the family physician. Cases are followed up in order to see that competent medical care is being given. The school's observation of such children, together with the academic record of achievement are of significant value when reported to the family physician or clinic. The school physician attempts to see the children in at least one typical convulsion although in certain instances the school physician asks to be on call for all seizures. This, however, is not generally regarded favorably since the physician should coach the teacher and pupils toward a sympathetic understanding, acceptance, and handling of the child during an attack and sequelae. The school physician also has periodic conferences with the nurse who reports to him progress made with the child in relation to treatment by family physician and the quality of cooperation of the home. One of the important duties of the school physician is to desensitize the teacher and pupils about unwholesome fears and repugnances which are apt to arise when a child is overtaken with a grand mal attack. Reassurance, calmness, objectivity, and treatment of the child as though nothing were unduly wrong are emphasized. How to make the child comfortable and safe during an attack is explained.

Utilizing a combination of various reputable treatments are invoked, such as luminal, bromides, diet, and a modification of the child's twenty-four hour schedule of living in order that precipitating excitants may be prevented and constructive interests and activities be habitually incorporated in the child's pattern of adjusting to life. The school physician is attentive to the child's general hygienic condition, the elimination of all significant difficulties, and the exercise of attitudes and habits which will assist him in the light of his individual personal, social, and emotional needs. In most instances the explanation to the parents of the nature of the illness is left to the family physician.

6 The *educational treatment* of such children concerns itself with the modification of the curriculum to meet the individual needs of the child. The first prerequisite is to see that the child's condition is adequately interpreted and accepted by the teacher and the other pupils. It

is surprising to note that in certain school systems (two out of nineteen) the curriculum is not modified in any way to assist such children. Where mental retardation as well as epilepsy is present the child is given the advantage of special class treatment, should it be available. In epileptic children of normal mentality, the practice is to retain them in regular classes so that unwholesome discrimination may be avoided. It is interesting to note that one city school, as soon as the diagnosis of epilepsy is made, seeks the advice of a psychiatrist as to the care and amount of educational work the pupil should be undertaking.

The epileptic child is permitted to carry on in a public school just as long as possible without unduly disturbing the school situation. Everything is done in order to retain this type of handicapped child in the regular classes. Both teachers and pupils are encouraged to display sympathetic and helpful attitudes and to regard such pupils in a matter-of-fact way without paying more attention to them than is paid to others. Of course, when fighting is displayed or soiling of clothing becomes an acute problem, special provision should be made, especially where highly strung children in the same classroom become so emotionally upwrought that they are unable to carry on their education in a satisfactory manner. It is remarkable, states one school physician, how seldom complications arise. Even in fairly severe and frequent attacks, the child may go on in school for years and classmates are often made more or less indifferent to the seizures.

Home teaching is provided for those who are too ill to attend school, and who can profit by such instruction. In this connection, the State Department of Education is vitally concerned through its Bureau for Handicapped Children. Epileptic children reported to this Bureau are whenever possible, referred to a mental hygiene clinic, specialist, or hospital for verification of the diagnosis, treatment, and prognosis. After this Bureau receives the report from the physician or clinic concerned, home teaching is arranged, providing the child's mental ability is at a teachable level and the family cooperates with the physician in the specific and general treatment outlined. Of course, guidance is also considered an important matter. A re-examination once a year at the child guidance clinic is sought in order to evaluate the degree of mental deterioration, if any.

This Bureau feels that as soon as a child has a "seizure" he should be excluded from school until the nature of the condition is determined. The upsetting nature of such attacks and the lack of understanding of the teacher and pupils in handling the situation seem to make exclusion desirable. On the other hand, an injustice is done to many epileptics exempted from school if they are allowed to "run wild" about the community without guidance or supervision. Of particular concern is the adolescent epileptic who is frequently side-tracked in gang and delinquency tie-ups. He is apt to become the foil of the gangster, easily enmeshed by the police and thrown into jail.

State aid to epileptics receiving home teaching in New York State is at present about six cases a year. It is regrettable that during the past seven years the degree of success of home teaching has been discouraging. A number of factors enter into this result, chief of which is a hopeless or indifferent attitude which is engendered when the diagnosis of "epilepsy" is made known. In certain instances the general practitioner is thought to be a little indifferent on the one hand, and the parents on the other hand frequently are too emotionally involved to give a satisfactory type of home atmosphere and facilities for care and treatment. From the educational standpoint the home teacher is apt to complain that "he forgets what he is taught."

It is interesting to note that a leading epileptologist in our State urges that epileptic children be kept in public schools as long as it is possible in the light of their educational, social, and vocational opportunities. It is pointed out that many epileptics continue through middle life earning a satisfactory living and doing quite well from the standpoint of citizenship and family formation.

Buffalo is the only city in New York State which maintains a special class for epileptics in the public school. These are included in a class for cripples. The teachers of such children should, of course, have a type of personality which is both understanding, composed, and tactful in meeting the vicissitudes that are apt to arise. Cots are utilized in a special room so that children following a seizure may be adequately taken care of. A special diet for them is supervised by dietitians attached to the general hospital. Teachers and parents cooperate with the hospital in carrying out medical recommendations.

It has come to the attention of the writer that another leader in the treat-

ment of such conditions in our State advocates that the knowledge of seizures be rigidly hidden from the public, and if seizures do not occur in the daytime the child should be retained in regular schools. The teacher as well as the pupil should be made cognizant of the promontory symptoms in order that injuries may be prevented and proper care be instituted the earliest moment. It is interesting to note that one school is very flexible in shaping its program to meet the epileptic child's condition. The hours of school attendance may be shortened, for example, he may not come to school before ten o'clock, or may attend only a half day. The classroom utilized is on the first floor in order to avoid stairs and hazards of falling. Such children are not called upon for recitation unless they volunteer. They are exempted from gymnastic work especially that which involves hazardous situations such as trapeze work and swimming. Rest periods as may be advised by the family physician are carried out in school. When a child changes classes, a conference is often held by the school physician and teachers in order to procure a sensible and helpful attitude on the part of the teachers and children. The school program is modified to fit individual needs when mental deficiency is present (IQ 50-75). The child is given the advantage of special class instruction. There is much leeway given to the epileptic child as is found expedient, especially avoidance with respect to the competitive aspects of work achievement. In view of his tendency to become unduly involved over details, a longer time is required. Thus the child is not pushed, although stimulated in keeping up with his work.

Since the psychiatrist is also concerned with problems of social deviation as well as personality and emotional problems of epileptic children, it is important that he make known to the school physician and the teacher the relationship of these to the nature of the epileptic seizures. Such problems as slowness of grasp, confusion, and poor retention have to be interpreted in the light of his illness particularly in relation to the time of seizure. Although there is a common ground of general plan in the handling of behavior problems of all children, yet the epileptic in view of the dramatic nature of his illness is apt to foster overconcern and oversolicitude which frequently militates against good discipline and need of building up his cautious independence and self-reliance.

It is important that we do not label children with a so-called "epileptic per-

sonality" as it is felt that this causes discouragement and indifference on the part of teachers and others. It is our feeling that there is no clear-cut type of personality which can be attached to the epileptic as peculiar to this illness since individual differences in personality make-up are constitutionally and experientially determined rather than epileptic reaction-type determined.

It is important that the teacher realize that the epileptic of average intelligence may at times simulate the picture of a child with mental retardation because he is unable on occasion to use his intelligence. Such children, however, should not be placed in special classes for the mentally retarded or in a State Institution for the Feeble-minded. If we find the patient is slowing up, is apathetic, or inattentive the teacher should pay more attention to the child through stimulating his interests but under no condition should he be "pushed." With respect to personality deviations such as increased sensitiveness, egotism, self-centeredness, and a tendency to daydreaming, and such behavior difficulties as temper outbursts, it is important that we try to find out *why* the child is so reacting in the light of a number of factors other than the epileptic reaction *per se*. The type of teaching required for the mental defective is quite different from that which is desirable for the epileptic child. In the former we note a lack of capacity to understand and, therefore, emphasize the importance of habit training and routine type of interests and activities which will give him the necessary information, knowledge, and skills. But such monotonous teaching would not do for the epileptic child who needs rather short hours of teaching pressure, a variegated program to keep up his interests, and an emotional atmosphere which prevents undue excitement or discouragement.

Children presenting epileptic fugues or twilight states in which impulsive and antisocial behavior may result, can not safely or profitably be retained in a public school.

7 The chief criteria for recommending institutionalization of epileptic children are poor home conditions with inadequate guidance and supervision, frequent and violent seizures not responding to treatment, intelligence at so low a level as not to be able to profit by public school or home teaching. Only after the community resources are exhausted is the recommendation for institutionalization made.

Each child has to be studied individually

in the light of a number of factors. An often overlooked advantage of institutional care and treatment is the fact that such places often provide superior facilities for the understanding and treatment, both educational as well as medical, of such children. Moreover, in view of the oft-repeated social criticism and even ostracism which leads to marked unhappiness in the case of sensitive personalities, a special school for such children would be a delightful haven of refuge. Recommendation for hospital care or institutional treatment usually comes from the physician of the family.

One school physician reports, "If home care is good, and the child is not too much of a burden so that the other children in the family are neglected, or if antisocial reactions are not displayed, we do not consider suggesting that such a child be sent to an institution." In the case of well-to-do families, epileptic children therein are retained profitably through the utilization of trained teaching and supervisory personnel.

Our statistical data indicates that about twenty per cent of epileptic children become committed during the school age period to institutions for the epileptic (5%) or to State Schools for the Feeble-minded (15%), about fifty to seventy-five per cent are retained in public school, and twenty-five to thirty-three per cent are excluded from public school and live at home.

Summary and Conclusions

The facts of the understanding and treatment of the epileptic school child were obtained from a questionnaire sent to nineteen school physicians of representative cities and villages in New York State. The digestion of this material lends significance to the following topics.

1 Although the incidence of epileptic seizures in school children are relatively small (seven per 10,000 or 07%), yet from the standpoint of school management this type of child presents a most serious type of problem. There seems to be some indication of a diminution in the number of epileptic school children during the past five years. This may point to a better understanding and handling of the contributory factors making for or against convulsive states, such as cranial birth injuries, lues, encephalitis, dietary indiscretions, foci of in-

This Bureau feels that as soon as a child has a "seizure" he should be excluded from school until the nature of the condition is determined. The upsetting nature of such attacks and the lack of understanding of the teacher and pupils in handling the situation seem to make exclusion desirable. On the other hand, an injustice is done to many epileptics exempted from school if they are allowed to "run wild" about the community without guidance or supervision. Of particular concern is the adolescent epileptic who is frequently side-tracked in gang and delinquency tie-ups. He is apt to become the foil of the gangster, easily enmeshed by the police and thrown into jail.

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ment of such conditions in our State advocates that the knowledge of seizures be rigidly hidden from the public, and if seizures do not occur in the daytime the child should be retained in regular schools. The teacher as well as the pupil should be made cognizant of the promontory symptoms in order that injuries may be prevented and proper care be instituted the earliest moment. It is interesting to note that one school is very flexible in shaping its program to meet the epileptic child's condition. The hours of school attendance may be shortened, for example, he may not come to school before ten o'clock, or may attend only a half day. The classroom utilized is on the first floor in order to avoid stairs and hazards of falling. Such children are not called upon for recitation unless they volunteer. They are exempted from gymnastic work, especially that which involves hazardous situations such as trapeze work and swimming. Rest periods as may be advised by the family physician are carried out in school. When a child changes classes, a conference is often held by the school physician and teachers in order to procure a sensible and helpful attitude on the part of the teachers and children. The school program is modified to fit individual needs when mental deficiency is present (I. Q. 50-75). The child is given the advantage of special class instruction. There is much leeway given to the epileptic child as is found expedient, especially avoidance with respect to the competitive aspects of work achievement. In view of his tendency to become unduly involved over details, a longer time is required. Thus the child is not pushed, although stimulated in keeping up with his work.

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ORBITAL INFECTIONS DUE TO NASAL SINUSITIS

A Study of 114 Cases

LOUIS HUBERT, M D, *New York City*
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Because of the limited time at my disposal, I will analyze very briefly 114 cases of orbital infections due to nasal sinusitis, which were admitted to the Manhattan Eye, Ear and Throat Hospital during the last ten years. At the start let us consider how infections of the nasal sinuses may extend into the orbits. They may do this in two ways, namely (1) by direct extension from the diseased bony walls, which separate these sinuses from the orbital cavities, and (2) by the venous blood stream, i.e., by a phlebitis of the veins of the various sinuses, which anastomose with the superior and inferior ophthalmic veins that supply the fatty cellular tissue of the orbits.

The venous supply of the various sinuses is shown in Fig 1. It can readily be seen how a phlebitis of one of these veins may extend into the superior or inferior ophthalmic veins, which communicate with the cavernous sinus.

The area that contains the cellulofatty tissue of the orbit is shown in Fig 2. In this space are also found the extrinsic ocular muscles, the optic nerve, and the superior and inferior ophthalmic veins. Lymphatics are entirely absent in this area. It is limited by a rather thick membrane, called the orbital fascia, which is a part of the periorbita or periosteum lining the bony orbit, and can be easily separated from its bony attachment. When so separated it is frequently misnamed by rhinologists, Tenon's capsule. The anterior surface of the latter, as is shown in Fig 2 is in intimate contact with the eyeball, and its posterior surface is closely related to that part of the orbital fat that surrounds the eyeball. The orbital fascia, however, supports the orbital contents in relation to the bony orbital walls.

Classification of Orbital Infections

All orbital infections can be classified in the following five groups

1 Inflammatory edema of the eyelids with or without edema of the orbit.

2 Subperiosteal abscess, (a) with edema of the lids and orbit, (b) spreading of the pus to the lids (erroneously called orbital abscesses)

3 Orbital abscess

4 Orbital cellulitis, (a) severe, (b) mild.

5 Cavernous sinus thrombosis, (a) septic, (b) aseptic(?)

In the first group the infection is confined to the nasal sinuses, and there is only an inflammatory edema of the lids, which may become markedly swollen. However, the eyeball is movable in all directions and the vision is usually not affected. In this stage the orbit proper is not involved. The edema may, however, extend into the orbital tissue. When this occurs there appears a slight exophthalmos and some limitation of movement of the eyeball. These patients usually get well within a week or ten days under conservative treatment. At times this edema may be the beginning of the more severe orbital infections. It may also accompany a fulminant sinusitis in which the infection has spread to the meninges or brain, but these patients are very ill and show signs of intracranial invasion.

Thirty-one patients belonging to the first group were admitted to the hospital as bed patients. Of these, twenty were successfully treated symptomatically. One had a lid incised, but no pus was found. One had the middle turbinate removed. Nine had external radical operations. There were five deaths in this group. One died of meningitis following the external operation and four died of brain

fection, early diagnosis and treatment (medical, psychological, educational, and environmental)

2 The chief criteria for exclusion and exemption from school are severe and frequent seizures, inability of the child to profit by regular school attendance because of low mentality, or behavior problems so upsetting that retention in school becomes impossible. There is a tendency to exclude every child with a seizure until adequate diagnosis can be made. The fact that only twenty-five to fifty per cent of epileptics are excluded from public school indicates the value of intelligent understanding and the shaping of school attitudes and facilities to serve the needs of this type of handicapped child. A more hopeful outlook for happily and effectively retaining him in the community from the standpoint of social-educational growth is now entertained than formerly. Nevertheless, a long term comparative study of the relative advantages and results of early institutionalization versus home-school-community adjustment is needed.*

3 The diagnostic criteria for epilepsy are periods of loss of consciousness, jerking movements, frothing at the mouth, and other features of the grand mal type. The vacant stare of "absences" of petit mal followed by amnesia for the attack are characteristic. Differentiation of epilepsy from hysteria, mental retardation, and organic conditions such as central nervous system lesions, brain tumor, post-traumatic injuries, and postencephalitic conditions must be considered.

4 Cooperation of the school physician, public health nurse, family physician, parents, hospital and child guidance clinic, as well as psychiatrist or neurologist, is necessary in order that continued care and supervision of the child may be adequate.

5 The school is not concerned with treatment, and usually diagnosis is re-

ferred to the family physician who confirms this by consultation with specialist, hospital, clinic, or other physician.

6 The educational treatment in the case of the epileptic child of average intelligence is to retain him in the normal age-grade grouping by individualizing his program as much as may be indicated. Of particular moment is the sympathetic and helpful understanding and handling of the child by the teacher and pupils. Home teaching is arranged for those who have too many or too-severe seizures to permit attendance at public school, and who have the intelligence (at least 60 IQ) to profit by such instruction. Allowance must be made for learning process difficulties such as inattention, confusion, and entanglement of details in order that he may not be further confused and excited, since this may give rise to seizures. He must not be classed with the child who is mentally retarded, although a combination of this and epilepsy is quite common.

7 The tendency is to retain the child in a public school or in the community with home teaching as long as is possible. Indications for institutionalization are frequent and severe seizures, inadequate home treatment, guidance, or supervision, and the superior advantages (medical and educational) of institutions caring for epileptics over those agencies in the local community.

8 Comments are made as to the understanding and treatment of the child, particularly with respect to the educational angle as it touches upon the work of the school physician in the light of home-school-community relationships.

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References

- 1 Dasso, Shephard and Conn, J C M *Arch Dis in Childhood*, 4 142, 1919
- 2 Fairbanks, R. E. *Behavior Problems in Children With Epilepsy*. Address delivered at the Thirteenth Annual Convention of International Council For Exceptional Children Feb 21-23, 1935, Baltimore, Md.
- 3 Fox J T *The Lancet* 225 545 1933
- 4 Malzburg Benjamin *Psychiatric Quarterly*, 6 97, 1932
- 5 Paterson Donald and Bray G W *Archives of Disease in Childhood* 4 138 1929
- 6 Shanahan W T *Epilepsy And Its Treatment*, Utica State Hospital Press Utica N Y, 1928
- 7 Wilkins, Lawson *International Clinics* 2 265, 1933
- 8 Wood T D and Rowell H C. *Health Supervision and Medical Inspection of Schools* p 383 Saunders New York 1927

* Fox² reporting on a study of 351 epileptic children cared for and passed through residential special schools over an eight year period states that of every fourteen such children, four (29%) are more or less self-supporting, two (15%) are at home without gainful employment, five (36%) are in institutions; and two (15%) are dead.

certain in cases of a unilateral sinusitis and orbital cellulitis in which the orbit on the side of the noninfected sinuses has become involved. The difficulty in the clinical diagnosis is due to the fact that the signs which are supposed to be characteristic of it and are attributed to it, are not due to a thrombosis of the cavernous sinus *per se*, but to a phlebitis of the ophthalmic veins. Even a positive blood culture may be present in a case of orbital cellulitis without cavernous sinus thrombosis. It is therefore impossible to say how many of the six cases of orbital cellulitis that died of meningitis also had an accompanying cavernous sinus thrombosis.

In the fifth group there were two cases of septic cavernous sinus thrombosis. Both died. Two cases that recovered were diagnosed as aseptic cavernous sinus thrombosis. This diagnosis is of course doubtful. To illustrate this condition, one of the cases will be briefly reported.

CASE 1 A man, thirty-eight years old, was admitted to the hospital on March 2, 1932. Three weeks before admission he had a cold in his head and was confined to bed for five days. A week before admission the left eye began to be painful and swollen. On admission the left eye was tremendously ptosed, the upper and lower lids markedly edematous, and the conjunctiva extremely chemotic. The right eye showed a slight chemosis of the upper lid. On March 9, a radical external operation on the sinuses was done on the left side, also a Kronlein operation to investigate and to decompress the left orbit. No pathology was found on gross examination. The patient was discharged on April 14, very much improved. Within a few months the entire condition cleared up.

Involvement of Nasal Sinuses

In ninety cases the sinuses involved could be determined by clinical examination, x-ray studies, and operative findings. In thirty the frontal sinus was involved, in twenty-two the frontal and ethmoidal sinuses, in twenty-six the ethmoids, in five the ethmoids and antrum, in two the antrum, in one the ethmoids and sphenoid, and in four cases all sinuses were involved. In twenty-four cases the sinuses involved could not be determined with certainty.

Age

The youngest patient was two months old and the oldest seventy-eight years. Twenty-four cases were in children between the ages of one to ten years.

Treatment

The surgical and medical treatment that these patients received was not uniform. It depended a good deal on the different viewpoints of the various rhinologists who took care of them. The

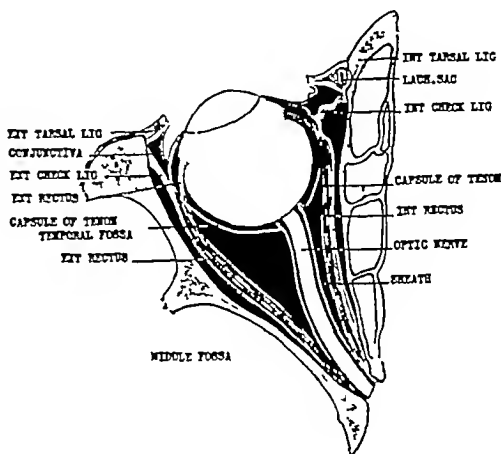


Fig 2 Orbital contents and arrangement of the Capsule of Tenon. (After F Treves)

plan of treatment here recommended is the one used at the Manhattan Eye, Ear and Throat Hospital, clinic of Dr Francis White.

In the first group of cases, nonoperative treatment is advised. Occasionally in cases of acute fulminant sinusitis with orbital edema, high fever, and severe pain, the surgeon may be tempted to do an external operation on the sinuses. The results, however, have usually been unfortunate. If the sphenoid is involved it should, of course, be washed out and drained.

In the second group, where a subperiosteal abscess is present, the usual curvilinear incision for the external ethmoid operation is made, the periosteum separated, the bony orbit examined, and the pus evacuated. This maneuver does not only evacuate the pus but makes a definite diagnosis of the sinus involved.

abscesses that accompanied the orbital edema. Many more cases belonging to the first group were treated in the clinic, but are not included in this study.

In the second group the infection involves the bony wall and the periosteum and a collection of pus forms between them. There is a circumscribed swelling, which is painful to the touch. The eyeball is displaced and its mobility interfered with, depending upon the location of the subperiosteal abscess. The

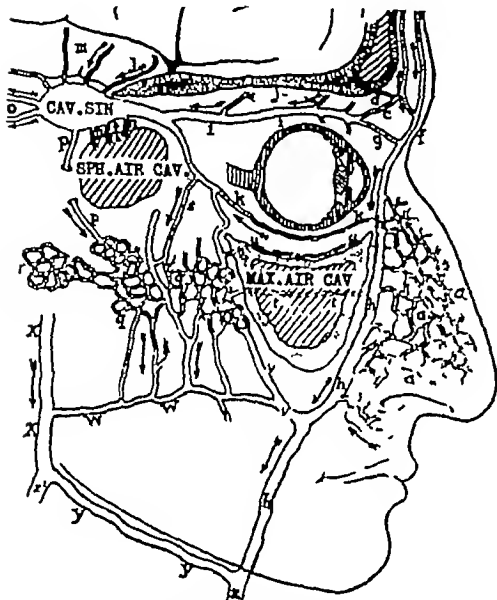


Fig 1 Diagrammatic representation of afferent and efferent venous channels of the cavernous blood sinus (After Turner and Reynolds)

pus may extend into the lids and break through, forming a fistula. These cases are frequently misnamed orbital abscesses. There were forty-six cases that belonged to the second group. In nine of these the pus was confined between the bone and the periosteum and in thirty-seven the pus involved the lids. All recovered after surgical treatment, which will be discussed shortly.

In the third group the infection spreads into the orbital tissue proper either through the orbital wall and fascia or through the venous circulation. There is a very pronounced exophthalmos, an extreme chemosis of the conjunctiva, an immobility of the eyeball,

and interference with vision. The pus may spread to the lid or the conjunctiva and break through. When this does not occur, and it frequently does not, it is impossible to distinguish clinically an orbital abscess from an orbital cellulitis. The diagnosis is then made at the time of the operation. There were twenty-two cases of orbital abscesses. Two of these died of meningitis and one of a brain abscess.

In the fourth group the infection extends into the orbital tissues through the venous circulation, causing a phlebitis of the ophthalmic veins. These patients are extremely ill, have a very high temperature, 105 to 106° F, an extreme exophthalmos and chemosis of the conjunctiva, a fixation of the bulb, and disturbance of vision. Macroscopically there is no evidence of pus at the time of the operation, but microscopically there are found small areas of purulent inflammation and necrosis scattered in various places of the retrobulbar tissue, especially in the vicinity of the veins, also evidence of periphlebitis and phlebitis. There were nine cases of severe orbital cellulitis, six of which died of meningitis.

Quite frequently patients are seen, especially in the eye clinics of the hospital, that present a picture of a mild orbital cellulitis following a nasal infection. They do not appear very sick and are treated in the clinic. Two of them were admitted to the hospital and discharged cured after a few days of local treatment. These patients also present an exophthalmos, a chemosis of the conjunctiva, an immobility of the eyeball, but instead of getting worse as the cases with severe orbital cellulitis do, they improve daily, showing that the infection is mild and can be taken care of by the natural defenses of the body.

In the fifth group the infection has extended from the ophthalmic veins or directly from the sphenoid sinus into the cavernous sinus. These patients present a picture of a severe orbital cellulitis. It is almost impossible to distinguish clinically such an orbital cellulitis from a cavernous sinus thrombosis, unless it is accompanied by an edema over the mastoid emissary. The diagnosis is also

In the fifth group, the treatment should be preventive. I doubt very much if anything can be done when we are confronted with an acute fulminating cavernous sinus thrombosis. However, inasmuch as the diagnosis is usually difficult to make, it is advisable to treat these cases the same way as those suffering from severe orbital cellulitis, in the hope

that the trouble is still confined to the orbital tissues.

It is my firm belief that if the plan of treatment outlined in this paper is carried out, the number of cases of meningitis resulting from nasal sinusitis and orbital infections would be materially reduced.

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Discussion

DR. FRANK C. KEIL, *New York City*—Dr. Hubert has left very little to discuss in his excellent study of 114 cases of orbital infections due to nasal sinusitis. There are a few points in diagnosis and treatment which deserve special attention.

1. Differential diagnosis.
2. Fundus examination.
3. Some points in operative treatment to be emphasized.

Although various observers have found that over fifty per cent of orbital infections are secondary to sinus disease, it is well to remember other etiological factors and that a coexisting sinus infection might not be the causative factor. Although serological and x-ray examinations along with local signs in the nose will aid in eliminating tuberculous, leucic, and neoplastic conditions in the orbit, other conditions must be eliminated. The spread of infections from neighboring parts such as an acute dacryoadenitis, acute dacryocystitis, hordeolum, and a panophthalmia must be considered. Infected wounds of the face, erysipelas, infections secondary to septic pharyngitis, abscessed teeth, and metastatic infections from a septicemia or a septic venous thrombosis in the extremities should be noted. The latter conditions might also be responsible for a tenonitis which must be differentiated.

Exophthalmus, redness, and swelling of the lid in a bottle-fed infant from four to nine months of age should arouse a suspicion of infantile scurvy. Cases have been reported of subperiosteal orbital hemorrhages in scorbutic infants who have been operated upon for orbital abscesses. A temperature of 102° or 103° F frequently found in infantile scurvy is often very misleading.

Edema and redness of the lid, a frequent sign of an acute sinusitis must not be confused with an exophthalmos. The former does not indicate orbital involvement. The positive signs of orbital involvement are chemosis of the conjunctiva, exophthalmos or ptosis of the globe, along with loss of mobility. Subjective symptoms of pain

in the eyeball and orbit or pain on moving the eyeball, blurring of vision, and tenderness of the globe on pressure frequently present, might be absent. It is also possible for an orbital infection of nasal origin to occur with negative nasal findings. The original nasal infection might have cleared before the orbital signs became manifest.

The fundus signs are frequently conspicuous by their absence. The edema of the corneal epithelium usually present renders an ophthalmoscopic examination exceedingly difficult and unsatisfactory.

With thrombosis of the ophthalmic veins or central vein of the retina often found associated with cellulitis of the orbit and cavernous sinus thrombosis extensive retinal hemorrhages, optic neuritis, papilledema and venous engorgement are noted early in the disease.

Dr. Hubert has given a very concise pathological classification of orbital infections. It is frequently impossible to assign a case to one of a group as the conditions frequently overlap. It is only after the incision has been made that the case can be properly classified.

As to treatment conservative measures might be followed a longer time with adults than with children. The small size of the parts concerned in the latter might lead to immediate extension of the infection to the meninges and other complications.

The old treatment of a puncture with a cataract knife through the conjunctiva into the orbit has been condemned for some time. This procedure gave no drainage and only scattered the infection throughout the non-infected orbital fat. Unfortunately one can find this treatment recommended in some of the not-so-old textbooks in ophthalmology.

The curvilinear incision is the accepted incision. If pus is not found on separating the periosteum incisions should be made through the fascia into the cone of ocular muscles. Until this has been done, one cannot be sure that an abscess within the muscle cone has not been overlooked.

DR. FRANCIS W. WHITE, *New York City*—The comprehensive paper of Dr. Hubert

After the subsidence of the acute symptoms, a radical operation on the involved sinuses is done. In two of the cases this was unnecessary, as there probably was only a mild involvement of the bony orbit, with little bone destruction.

In the third group, the orbital wall and orbital fascia are exposed as in the second group. If both are intact an incision is made into the orbital fascia and if an abscess is present, pus will escape. In these cases the infection has extended into the orbital tissue by the venous circulation leaving the bony wall and periosteum uninvolved. No radical operation on the sinuses is necessary in such cases. A few rubber drainage tubes are passed through the incised orbital fascia into the retrobulbar tissue, where the abscess is, and allowed to come out through another incision made in the lower lid. To illustrate these points the following case is briefly reported.

CASE 2 A two months old baby was admitted to the hospital on October 26, 1936. A week previous to admission the child had a nasal cold. Then the right eye became enormously swollen. On admission the right eye was ptosed, and the chemosis of the conjunctiva was so marked that the cornea could scarcely be seen. There was complete fixation of the eyeball. After making the usual curvilinear incision, I exposed the orbital plate and fascia, which appeared normal, indicating that the infection had travelled through the veins. The orbital fascia was incised and a large amount of pus exuded. The orbital plate was not removed, and no operation on the sinuses was done. The recovery was uneventful.

There were ten other cases of orbital abscesses in this series, which recovered after drainage without radical operations on the sinuses. However, if the bony orbital wall is diseased, a radical operation on the nasal sinuses is essential. It is recommended to do this after the subsidence of the acute symptoms. In eleven cases of orbital abscesses, a radical operation on the sinuses was necessary. The importance of investigating the orbital contents is shown by the following case.

CASE 3 A girl, eight years old, was admitted to the hospital on July 28, 1935.

The left eyeball was ptosed, immobile, and the chemosis of the conjunctiva was so marked that the cornea could not be seen. On July 29, the usual external radical operation on the sinuses was performed by one of the assistant surgeons of the hospital. The next day the condition of the child was worse. It seemed that the eye would be lost because of the increasing proptosis and chemosis. The temperature was very high and there were signs of meningeal irritation. The child was re-operated and a large collection of pus was found in the retrobulbar tissue. On August 17 the patient was discharged cured.

The fourth group gives us the greatest amount of trouble. In these cases there is no visible pus present in the orbital contents. As the infection has travelled through the venous circulation the orbital bony wall may be intact. The orbital fascia, although not involved, is under extreme tension. Incising the orbital fascia is not sufficient. A radical operation on the sinuses must be done to decompress the orbital contents, to relieve the pressure on the optic nerve, and to prevent the extension of the infection to the cavernous sinus and to the meninges. A radical operation on the sinuses alone, as is usually done, without drainage of the orbital contents, results often in fatalities. For the purpose of illustration the following case is briefly reported.

CASE 4 A man, thirty-five years old, was admitted to the hospital on June 14, 1935. He had an extreme proptosis and fixation of the right eyeball, marked chemosis of the conjunctiva, and excruciating pain. The vision was reduced to light perception in that eye, with a choking of the disk of three diopters. It appeared to be a case of cavernous sinus thrombosis. He was operated upon by me on June 19. The orbital plate, when exposed, appeared normal. The orbital fascia was intact, but very tense. When incised, the orbital fat came out under pressure, but no pus was present. The orbital bony wall was then completely removed, including the floor of the frontal sinus. There was no pus present in any of the sinuses. Three rubber tubes were inserted into the orbital contents through the incised fascia. When the patient regained consciousness the first thing he noted was the complete relief from pain. He was discharged cured on July 28, with 20/70 vision in the affected eye.

THE POLYCYSTIC KIDNEY

With Special Reference to Complications and Treatment

JOSEPH A. LAZARUS, M.D., *New York City*

A brief summary of the outstanding features of the polycystic renal disease would help to explain the underlying causes of some of the complications occasionally encountered in this disease.

Polycystic disease of the kidney is characterized by the formation of cysts within the renal parenchyma due to congenital occlusion of portions of the renal tubular system. Kidneys so involved have been known to grow to enormous size. Although the pathological process is most apparent in the kidney, cystic changes have been noted in other organs, such as the liver, ovary, uterus, bladder, and epididymis. Although one occasionally reads of a case of so-called unilateral polycystic kidney, it can be stated as a rule that polycystic disease involves both kidneys, either equally or one more than the other. Removal of one polycystic kidney under the assumption that its mate is normal will, within a few months after operation, disclose the typical pyelographic deformity characteristic of this disease in the remaining kidney. Occasionally, a kidney, the seat of a group of multilocular cysts due to acquired occlusion of renal tubules and having nothing at all in common with polycystic disease clinically or embryologically, will be mistaken for a polycystic kidney, leading to the erroneous assumption that the condition is one of unilateral polycystic kidney.

Polycystic disease is frequently encountered in several members of the same family, thus lending additional evidence to the congenital nature of this entity. Yet, in spite of the fact that this disease is congenital, symptoms rarely appear before the fourth decade, the greatest incidence occurring between the ages of fifty and sixty, with both sexes equally affected.

About thirty per cent of patients with polycystic disease succumb within two years after the onset of symptoms, about fifteen per cent live between two and four years, while the remainder (55 per cent) have been known to live five to twenty

years after the diagnosis has been established. Fifty years appears to be the average age at the time of death. The amount of destruction of renal parenchyma by pressure of the cysts upon renal substance, either due to atrophy or resulting from a superimposed complication, seems to be the predominating factor influencing the span of life in these patients.

Whether the onset of symptoms be acute or insidious, death as a rule results most frequently from uremia or from a vascular accident. Pain, which may be dull or colicky in character and usually localized to one side, constitutes a not infrequent symptom. At times the pain is so severe that it simulates an attack of renal colic due to the passage of a ureteral calculus, and is usually due to the passage of small blood clots or, as occurred in the case about to be described, to the pressure of a cyst upon the ureter. Chills, fever, and dysuria are symptoms which denote a superimposed renal infection. Hematuria is a frequent symptom, and when bleeding occurs from one kidney particularly in the presence of pyelographic distortion of that kidney with only incipient changes in its mate, one is extremely apt to look upon the lesion as a true renal neoplasm. Depending upon the degree of parenchymal destruction and its consequent blood nitrogenous retention, one obtains a history of nausea, vomiting, asthenia, and loss of weight.

Physical examination usually reveals the presence of an enlarged kidney on one or both sides, and in cases with unusual enlargement of the left kidney, one may note the presence of a varicocele. Elevation of blood pressure is rarely lacking, and when accompanied by fixation of specific gravity of the urine with or without a trace of albumin, is extremely suspicious of polycystic disease. An interesting feature in the early stages of the disease is a delay in the appearance of the dye, although there is no decrease in the total two hour 'phthlein output.

on orbital infections leaves but little for discussion. Dr Keil has very carefully elaborated upon the ophthalmological aspects of orbital infections caused by or only incidentally associated with acute suppurative sinusitis. Therefore, it devolves upon me only to stress some of the points concerning classification and treatment that an analysis of the 114 case reports revealed, plus the knowledge gained by the application of these deductions.

Those of us, however, who have been observing, having noted a lessening of the very radical sinus surgery, and the beginning of a more conservative surgery are no doubt in accord that the latter is the logical method of treatment. Not alone is the improvement in procedure due to a change in the attitude of the rhinologist, but rather to the teamwork of the rhinologist, ophthalmologist, and roentgenologist. The latter, particularly, is a most important ally.

You will find the classification of acute sinus diseases, as given here, of the greatest help. The treatment is predicated upon results that cannot be doubted. Probably, the type most frequently complicated by surgery is the first, namely, edema of the eyelids and orbit. Too great haste in operating only prolongs a condition that under conservative treatment would recover. The second type, subperiosteal ab-

cess, is self-explanatory, and the treatment is logical. It is in the third type, or orbital abscess, that grave consequences may arise if the surgeon does not seek pus by boldly incising the orbital fascia and employ two of the surgical triad of pioneer surgeons, which was, "open, disinfect, and drain." We do not resort to disinfection, however, as heretofore. In the fourth type, namely, orbital cellulitis, although the condition may clear up under conservative treatment, still, if no improvement is seen or the reverse occurs, then open and drain by incising the orbital fascia. Do not be disappointed if macroscopic evidence of pus is lacking—it is there, and free drainage is your best friend. By removing the adjacent bony wall, a decompression of the orbit is obtained. By successfully treating types 3 and 4, type 5—namely, cavernous sinus thrombosis, may be prevented—which is the best form of treatment.

In concluding, may I suggest that you look upon acute suppurative involvements of the nasal accessory sinuses as being somewhat similar to pyogenic conditions in the soft tissues of the body. The indications would then be early free drainage of the accumulating pus and with the recession of the acute symptoms a radical removal of all diseased tissue.

DOCTORS BLAMED FOR INJURED ATHLETES

Physicians engaged in the examination of school children should be interested in the proposal to place the control of interscholastic athletics under the State Board of Regents—to better safeguard the health of the student athletes, observes the *Onondaga Medical Society Bulletin*.

In an address before the American Physical Education Association at Hotel Pennsylvania, in New York, F. R. Wagner, secretary of the New York State Public High School Athletic Association, held physician and coaches responsible for the numerous injuries to football players in permitting them to enter games with past records of fractures and other physical defects. He said:

"While at the present time it is generally conceded that boards of education

in the state are not directly responsible for injuries to boys engaged in athletics, I believe this is partly due to the fact that no one has seen fit to press certain types of cases legally.

"If a lawyer could show that a coach was negligent in placing some partially injured boy in a football game, the parent could prove a clear case against an agent of the board (the doctor or coach or both) and thus against the board itself."

Mr. Wegner said the large number of injuries to high school football players could be avoided by systematic physical examinations and rejection of those unfit to participate, "instead of the present haphazard methods so often used by high school doctors."

The Doctor was visiting Rastus' wife to deliver her twelfth offspring. While riding along with Rastus he saw a duck in the road.

Doctor "What kind of a duck is that?"
Rastus "That ain't no duck. Dass de stork wid 'is legs wore off."

—Exchange

ney is not hopelessly destroyed. In the latter event, providing the other kidney has previously been found sufficiently competent to sustain life, nephrectomy should be carried out.

3 Hemorrhage

Although hematuria is not an infrequent symptom of polycystic disease of the kidneys and can easily be controlled by rest and pelvic lavage with strong silver nitrate, at times hemorrhage from such a kidney may be sufficiently severe to require prompt radical measures for its control. In other cases, however, hemorrhage may be entirely confined to one or more large cysts not communicating with the pelvis, in which event there is no hematuria, instead the patient complains of severe lumbar pain and presents the typical picture of shock. Attacks of renal colic due to the passage of clots through the ureter are not infrequent in the presence of hemorrhage. The treatment of cases of severe bleeding consists in performing Rovsing's multiple punctures of the cysts.

4 Attacks of Renal Colic Due to Occlusion of the Ureter by an Adjacent Cyst

To illustrate such a possibility, the following interesting case is presented.

A man, forty-three years of age, presented himself with a history of attacks of left renal colic of eight years' duration. Two months previously he passed a small calculus. Save for several attacks of hematuria there were no other symptoms.

Physical examination revealed a large, hard, irregularly shaped, movable mass in the left loin which was considered to be the left kidney. The right kidney could not be palpated. Blood pressure 156/100. *Urinalysis* Faint trace of albumin with several RBCs and an occasional leukocyte. Specific gravity 1.012.

Cystoscopic examination failed to reveal an obstruction in either ureter. Urine from the right kidney was negative, while that from the left contained numerous red blood cells. Phthalein given intravenously appeared in good concentration from the right side in three minutes and from the left in four minutes.

The shadowgraph film showed the right kidney of normal size, shape, and position, with the tip of the catheter lying in the renal pelvis. The left renal shadow was markedly enlarged and presented a stag-

horn shadow in the region of the lower calyx. The upper third of the catheter made a complete outward arc. A retrograde left pyelogram showed the pelvis rotated anteriorly and the calices broadened and clubbed. The intravenous pyelograms confirmed the findings of the retrograde pyelogram of the left kidney, and revealed the right pelvis normal (Fig 1). A nega-



Fig 3 Pyelogram of right kidney four months after nephrectomy. Note large cyst pressing on ureter, causing attack of renal colic.



Fig 4 Right shadowgraphy of kidney after evacuation of cyst.

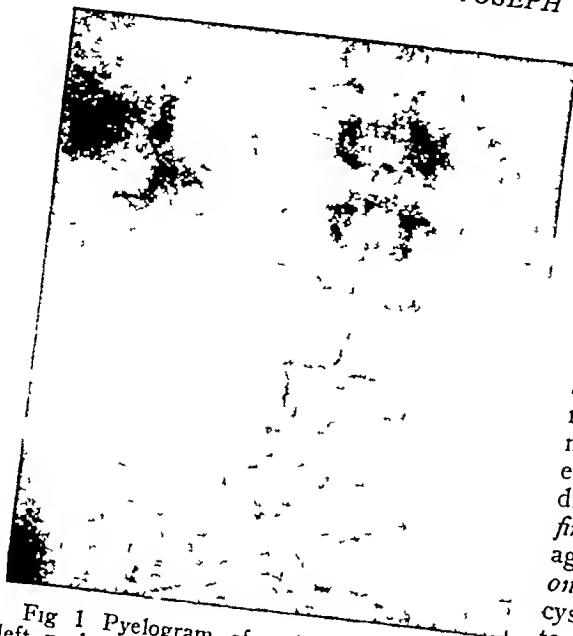


Fig 1 Pyelogram of right kidney prior to left nephrectomy



Fig 2 Surface view of left kidney following extirpation. Note large cyst pressing upon ureter

Roentgenologically one can usually discern enlargement of the renal silhouette and on good films it is also, at times, possible to actually visualize the projections of the individual cysts beyond the

limits of the renal cortex. However, it is by means of pyelographic studies that the diagnosis is usually confirmed, the outstanding features of the pyelogram being elongation, bowing, and broadening of the calices. Occasionally the calices may be shortened or entirely obliterated

Complications and Their Treatment

Just as happens in other types of anomalous kidneys, polycystic kidneys are more prone to complications than are normally formed kidneys. It is the writer's belief that the chief underlying predisposing causes of complications are, *first*, an interference with natural drainage due to pressure of cysts, and *second*, an increase in tension within the cysts which exposes the intrarenal vessels to the danger of laceration

1 Calculi

Calculi situated in the renal pelvis or ureter are extremely hazardous in the presence of polycystic disease due to their ability to hasten the destruction of secreting parenchyma by interference with drainage. Only in rare instances of small nonimpacted ureteral calculi is it advisable to employ cystoscopic catheter manipulation to aid in the expulsion of the calculus. In such cases, however, this procedure must be promptly abandoned at the first indication of infection. The procedure of choice in such cases is pyelotomy or ureterolithotomy supplemented by the evacuation of the contents of the renal cysts by multiple punctures

2 Infection

While in normally developed kidneys the vast majority of infections occur as pyelitis or pyelonephritis, we find in polycystic kidneys infections more frequently resulting in infected hydronephrosis or in pyonephrosis, and this difference is due to the marked incidence of obstruction by cysts in polycystic disease. Owing to the difficulty encountered in introducing a large ureteral catheter into the pelvis of an infected polycystic kidney, the treatment of such cases is usually surgical. Nephrostomy combined with Rovsing's multiple punctures of the larger cysts and decapsulation constitutes the procedure of choice in cases where the kid-

a congenital anomaly involving both kidneys, in which renal destruction results from pressure of the distended cysts upon the renal parenchyma

2 Calculi, infection, hemorrhage, ureteral colic due to compression of ureter by cysts, severe lumbar pain, and impending uremia constitute a group of complications of sufficient gravity to warrant prompt treatment.

3 Owing to the nature of the underlying pathology, the treatment of such complications is usually surgical. The outstanding features in such treatment consist in the evacuation of the large cysts with or without nephrotomy depending upon the presence or absence of infection. Nephrectomy is indicated only in cases where the offending kidney is hopelessly destroyed and the other kidney is capable of sustaining life. Decapsulation is a valuable adjuvant to cyst evacuation.

4 The conservative management of ureteral calculi in these cases is fraught with great danger and should only be employed in cases showing no evidence of

infection, and where the calculi are sufficiently small and smooth to offer a fair chance that they may be expelled after a few manipulative treatments. In doubtful cases it is far safer to perform ureterolithotomy.

5 The author has found the use of short-wave diathermy of great aid in treatment of cases of severe lumbar pain due to a complicating perinephritis.

6 Free and thorough exposure of the kidney is essential in order to expose all cysts, and the use of the electric cutting current passed through a bistoury electrode, using preferably a spark gap machine, in evacuating cysts causes much less bleeding than does the use of the scalpel.

7 Removal of one polycystic kidney promptly brings out the inherent defects in its supposedly uninvolved mate, proving the fact that polycystic disease involves both kidneys.

8 Save for the management of complications, the treatment of polycystic disease is primarily medical.

875 PARK AVE.

NEW YORK TO LEAD IN MEDICAL EDUCATION

Definite progress in a plan which should place New York City in the forefront of all centers of medical education was marked on May 10, when the cornerstone of the Kips Bay-Yorkville Health and Teaching Center building at 411 E 69th St. was laid.

In announcing the ceremonies, Mayor LaGuardia revealed that Health Commissioner John L. Rice has completed negotiations with five of New York's medical schools for the world's largest program in the training of medical students in preventive medicine and public health administration.

The program involves the joint use by the Department of Health and the medical schools of five new health center buildings costing \$1,599,580 on a co-operative basis "which will insure unprecedented training facilities for medical students, nurses and other public health workers."

Two other centers under construction are the Washington Heights Center at West 168th St. and Broadway, and the Lower East Side Center at 21st St. and First Av. The remaining two, on which work will start soon, are the East Harlem Center, on East 115th St. and the Red Hook-Gowanus Center, on Baltic St., in Brooklyn.

The five new teaching centers are part of Commr Rice's district health center program which envisions the erection of thirty district health centers throughout the city.

In announcing details of the plan by which the Department of Health and the five medical schools will interchange services and facilities, Mayor LaGuardia said:

"This program means the enlargement of public health teaching facilities for five of New York City's medical schools. The result will be that these schools will be able to make available the most comprehensive educational program in preventive medicine and public health practice in the world.

"It is my hope that these new facilities will make possible the training of enough men and women in public health administration not only to supply leadership for this great city, but also for others which may need it."

Commissioner Rice, in a report to the Mayor, said the program should place New York City in the forefront of all centers of medical education and described it as the product of the best thought of leaders in the fields of medicine and public health administration.

tive shadow could be made out in the lower pole of the left kidney which occupied the position of the staghorn shadow in the flat film. Extending from the lower pole of the kidney there was an ovoid shadow the size of a tangerine, the lower edge of which reached below the crest of the ileum. A second, large, globular shadow was noted in the region of the upper pole of that kidney.

Operation revealed an enormously enlarged, completely destroyed left polycystic kidney (Fig 2) extending from the diaphragm down into the pelvis. The kidney was removed, and when opened disclosed a large coral calculus in the renal pelvis.

On the fortieth day after the operation, intravenous pyelography disclosed marked enlargement of the right kidney with the typical deformity of the calices characteristic of polycystic kidney.

Fifteen months later he returned complaining of an attack of right renal colic of two days' duration, and accompanied by fever and vomiting, but no chills. There was complete anuria during the past twenty-four hours.

Examination revealed the abdomen distended. Temperature 100.8° F. Upon introducing the cystoscope into the bladder no urine was obtained. The right kidney was easily catheterized and twenty ounces of urine were obtained from that kidney after 1½ hours' drainage. Phthalein given intravenously returned from the kidney in fair concentration after 3½ minutes and in good concentration after six minutes.

Right shadowgraphy revealed the tip of the catheter lying in the region of the renal pelvis, there was no visible shadow of calculus along the ureter course, but the catheter appeared superimposed over the vertebral column, evidently due to pressure by the kidney. Intravenous pyelographic studies disclosed an enormously enlarged kidney with a clearly defined large cyst arising from the lower pole of the kidney and pressing upon the ureter (Fig 3). The first appearance of the dye in the renal pelvis was noted on the twenty-five minute film, and the pyelogram revealed the characteristic deformity of polycystic disease. No dye was noted in the ureter or bladder at any time during this series of x-rays.

At operation the kidney, after being freely exposed, was found enormously enlarged and polycystic, disclosing an extremely large cyst in the mesal aspect of the lower pole of the kidney which completely dislocated the pelvis and upper portion of the ureter mesally. There were in addition many large cysts situated over the body of the kidney and upper pole. The cysts were

evacuated with the electric cutting current, following which the kidney was decapsulated and nephrotomy performed.

Convalescence was uneventful and the patient was discharged on the fourteenth day after operation. There was no recurrence of attacks (Fig 4).

5 Severe Lumbar Pain

Severe lumbar pain may be due, in addition to calculi and hemorrhage, to pressure from an enormously enlarged kidney or from a superimposed perinephritic inflammation. In the latter event the writer has found short-wave diathermy of great value and believes that this procedure should be tried for a reasonable period before instituting surgical intervention. Surgery is indicated in cases where pain is due to pressure and depending upon the degree of parenchymal destruction, nephrectomy being reserved for the hopelessly compromised kidneys, and Rovsing punctures as the procedure of choice in all other cases.

6 Impending Uremia

Since destruction of renal parenchyma in polycystic disease is due to atrophy resulting from pressure of large cysts, one may occasionally retard this process by evacuating the cysts in both kidneys.

Method of Performing Cyst Evacuation

While the scalpel has been the instrument most frequently employed in incising cysts, the writer has found the use of the electric cutting current passed through a bistoury electrode, using preferably a spark gap machine, much more advantageous, since it causes infinitely less bleeding than when using the knife. The operation is best performed under spinal anesthesia. Before evacuating the cysts, the kidney should be freely mobilized in order to visualize both poles and the anterior and posterior surfaces, and the kidney thoroughly packed off from the renal fossa. Following the evacuation of as many of the cysts as can be visualized, it is advisable to thoroughly decapsulate the kidney and drain the perirenal space.

Summary and Conclusions

- 1 Polycystic disease of the kidney is

held his head forward, one had bow legs, and one child held his right shoulder higher than the left.

Twice weekly, exercises based on the some standard series we had worked out for my office were given by Mrs. Just. Usually it was feasible to conduct the exercise with groups of children having the same postural defects. All were children of working mothers, and it was impossible to obtain adequate cooperation at home, so the other three days of the week the children were at the nursery school, they were given the exercises by the kindergarten and the nursery school

teacher, who were kind enough to cooperate. The older school children were supposed to do the exercises at home. Their attendance at the exercise class was the worst, and the results with them the poorest.

All the children were examined by the pediatricist weekly, and their posture especially observed and noted. At the end of five months, a study was made of the entire experience, and Table I is an analysis of the results. Corresponding figures obtained in the private practice group of the children are placed along side for comparison.

TABLE I—WINFRED WHEELER DAY NURSERY
PRIVATE CASES

Flat feet 5	Flat feet 13
2 cures	3 cures
1 moderate improvement	8 marked improvement
2 slight improvement	1 mod improvement
Shoulders forward 8	1 no improvement
1 cured	Shoulders forward 5
1 greatly improved	2 cures
2 moderate improvement	2 marked improvement
3 slight improvement	1 no improvement (only took exercises once)
1 no improvement (exercises only 2 months)	
Lordosis (Sway back) 5	Lordosis 5
2 cured	3 cures
3 moderate improvement	1 slight improvement
Bow-legs 1	1 no improvement (same as above)
cured	
Knock-knees 10	Knock-knees 8
2 cured	2 cures
2 greatly improved	5 marked improvement
3 moderate improvement	1 moderate improvement
2 slight improvement	
1 no improvement (ex. only two months)	Poor chest development 2
Poor Chest Development 2	1 cure (Laryngeal Stenosis)
1 greatly improved	1 marked improvement
1 moderate improvement	
Head forward 1	Head forward 3
greatly improved	3 cures
Curvature of spine 4	Curvature of Spine 3
1 cured	3 cures
1 greatly improved	
1 moderate improvement	Pot-belly 10
1 slight improvement	5 cures
Pot-belly 11	4 marked improvement
2 greatly improved	1 no improvement (no exercise)
4 moderate improvement	9 cured entirely of postural defects, 5 more
4 slight improvement	cured entirely of one or more postural defects
1 no improvement (Exercises only 2 months)	but still undergoing exercises for others, 13
Of the 26 children, 7 were entirely cured,	showing marked improvement (these include
8 greatly improved, that is, almost entirely	5 who were entirely cured of some post defects
cured, 8 showed moderate improvement, 6	as in above line) 1 patient showing only slight
only slight improvement, 1 unimproved. (Ex-	improvement, this boy's mother was a teacher
ercises only 2 months) It will be noted that	and did not do the exercises
best results were obtained with the Kinder-	
garten and Nursery group	

CORRECTIVE SUPERVISED EXERCISES FOR POSTURAL DEFECTS

EDWARD T. WILKES, M.D. and ELIZABETH JUST, *Long Island City*

From the Department of Pediatrics, New York Post Graduate Medical School and Hospital of Columbia University Dr. Adolph DeSanctis, Director

About two years ago the disappointment at the results I obtained in my patients with defective posture became acute. After diagnosing the deformity, I had followed the usual procedure in a pediatricist's office, that is, I had given the mother some corrective exercises to do with the child, perhaps demonstrated two or more of them myself in the office, and prescribed appropriate wedging of shoes when necessary. Possibly the mother or nurse did the exercises conscientiously that night and the next day, but only the exceptional parent continued with them daily and the results were poor and disheartening. Often I would see the same child some six months later, and detect no improvement, many times the condition would be aggravated. Then I thought that if I could get the cooperation of an expert in exercises for posture correction, together we might be able to get good results.

Fortunately I was able to obtain the help of Elizabeth Just, who had given corrective exercise for postural defects at the New York Babies Hospital and Temple University Hospital in Philadelphia. Together we worked out a series of standard, or routine exercises for the common postural defects—knock-knee, weak feet, lordosis, pot-belly, lateral curve of spine, and round shoulders. These are given later in this article. One afternoon each week, Mrs. Just came to my office, and in the presence of the parent, under my guidance worked with the children who had postural defects. The mother was then given a written copy of the exercises to be done daily with her child (the standard series having been modified to meet the individual child's needs). She was instructed to do them in the early morning or afternoon and not at bedtime when the child is usually fatigued, and its muscle elasticity diminished. In severe deformities, weekly visits to the office for a check-up and slight changes in the exercises were necessary, but in most

instances attendance every two weeks or at even less frequent intervals sufficed. These were continued for from two months to one and one-half years. Children with the same postural deformity were given the exercises as a group whenever possible. Any other defects found in these children under discussion, such as anemia, defective vision, excess activity, or malnutrition were corrected as far as possible. Many of the children had been under my care without improvement of their posture, for several years before we undertook to give them regular supervised exercises. Of the twenty-four children we followed twelve were less than four years old, six between three and six, and eight were over six and under eleven years of age. The defects in posture were divided as follows: Thirteen children had flat feet, ten protruding abdomens, eight knock-knees, five lordosis or sway back, five forward shoulders, three held their heads forward, three had lateral curvature of the spine, and two had poor chest development. Postural deformities seldom occur in only one part of the body at a time, and most of the children had more than one defect.

Our results were so good that I was encouraged to undertake a similar activity in behalf of the children with postural defects under my care at the Winifred Wheeler Day Nursery. All the nursery children had been under my observation weekly for from six months to several years previous, when no supervised exercises had been given them, and only rarely would a postural defect right itself. Twenty-six children were selected for the experiment. Five of these were less than two years old, fourteen were at kindergarten, between four and six years of age, and seven school children above six years were included. Of this group ten had knock-knees, eleven pot bellies, five round or forward shoulders, four lateral curvature of the spine, five sway back or lordosis, five flat feet, one

8 Hobby horse (1) Massage every morning and night. Forcibly straighten 10 minutes daily (2) Bicycle riding Horseback riding

Lordosis

- 1 Limbering-up exercises
- 2 Stand at "attention"
- 3 Stand against wall and try to touch wall with entire spine
- 4 Raise arms above head, bend forward (straight knees) touch floor with hands Touch knees with your nose
- 5 "March" bending knees way up
- 6 "High kick"
- 7 (a) Sit on floor, straight back, straight knees (b) Place hands behind neck, pulling elbows back and shoulder blades together (c) Rest, placing hands behind you on the floor Then repeat exercises (d) Repeat whole ten times
- 8 "Attention"

Exercises for Weak Feet

- 1 Toe raising
- 2 Toe raising, deep knee-bending, return to toe raising heels down (five times)
- 3 Walk in straight line for five minutes in such manner that when the heel strikes the floor, the rest of the foot pivots inward forty-five degrees
- 4 Turn feet on outer border, return (repeat ten times)
- 5 Raise toes off floor
- 6 Walk on tip-toes (feet turned slightly inwards) as much as possible.
- 7 Lie on back, place sole against sole, knees bent, stretch (repeat five times)
- 8 Ostrich step
- 9 Pick up a dozen marbles with toes and put into a cup

Curve

- 1 Place right hand behind neck, left hand on hip or higher Then bend to the left.
- 2 Make fists of hands, place right fist on top of your head, left behind your back, then bend to your left and push with your fists in different directions
- 3 Lie on right side, have someone hold your feet down, then place right hand behind neck, left hand on hip then raise off bed.
- 4 Sit on floor, straight legs, straight back. Have someone take hold of your hands and pull them up hard This is a left dorsal curve, chart. If patient has a curvature to the right, the exercise should be taken in the opposite direction.

Exercises for Round Shoulders

- 1 Arm swinging, head up
- 2 Fold hands together behind back, pull shoulder blades together
- 3 Sit with a wand or broomstick across back with arms pulled back by this
- 4 Place hands behind neck and pull elbows as far back and up as you can
- 5 Make fists of hands, cross hands across chest, then throw arms out-back-up (ten times)
- 6 Lie on stomach Have someone hold your feet down Then place hands behind neck and raise off bed (or floor), pulling elbows up and back as far as possible
- 7 Walk with palms of hands turned out. In order to get full benefit from these exercises, they should be done using effort so that the exerciser feels a strain at the end of each movement They should be done effortlessly

Abdominal Exercises for Pot-Belly

(Always start with a few limbering-up exercises)

- 1 Lying down (a) Pull abdomen in as much as you can (b) Expand it Watch breathing This exercise is more effective if a weight such as a book is placed on the abdomen (ten times)
 - 2 Bicycling in the air
 - 3 Lie on floor Sit up without assistance or elbows
 - 4 (a) Stand along side of wall Try to touch it with the entire spine (b) Take arms down Take step away from the wall Hold that posture.
 - 5 Swing down, touch floor with hands, without bending knees
 - 6 Deep-knee-bending Place hands between knees on floor Then with a quick jump, throw legs out and back holding stomach in and contract buttock muscles
- (Always finish with a few breathing exercises)

Summary

1 Twenty-six children with postural defects at a Day Nursery and twenty-four patients in private practice were given corrective exercises regularly by a posture worker under the supervision of a pediatricist The age varied between one and one-half years and eleven years Many of these children had these posture defects for several years without improvement before this treatment was started The exercises were conducted twice

Comment

It should be kept in mind that many of these children were under my observation for a long time before we started the supervised exercises, without any improvement in their posture. The cost of having a posture worker in the office once weekly is moderate, and more than offset by the fees received, as well as the tremendous satisfaction in rendering valuable service. Many orthopedists know the value of such an addition to the office staff, but the pediatrician and general practitioner has yet to learn it. Armin Klein¹⁻³ for many years has advocated posture clinics at the dispensaries and schools. In my own practice the posture worker was not only used to correct the postural deformities reported, as many children with Spastic paralysis, fractures, and tightened ligaments can be helped by supervised exercises. In one child with leg atrophy resulting from a hysterical contracture of the gastrocnemius, the muscle's size was restored and further atrophy prevented while his psychiatric treatment was pursued.

All the children, both in the private practice group and in the Day Nursery Group, received some benefit from the exercises, with the exception of one child at the nursery who did not have the exercises for more than two months. One child in the private practice series has only attended the exercise class once and really serves as a control. His mother was a school teacher and he did not do the exercises regularly. Of the twenty-four children treated at the office, nine were entirely cured of all their postural defects, thirteen other children showed marked improvement in posture, five of which were entirely cured of one or more defects, but still require exercises to correct others. Of the twenty-six Day Nursery children, seven were cured entirely, five others showed marked improvement or were almost cured, eight improved moderately, and six were only slightly benefited. The best results were obtained in the groups under six years of age, indicating that the earlier one starts exercising these children the easier it is to effect a quick cure. The children in the private practice group did better largely due to more individual

attention in the home. It will also be noted that lateral curvature of the spine and holding the head forward were readily cured, and that flat feet and knock-knees were almost entirely cured in about eighty-five percent of the cases. The mother of two children, who held their heads forward was certain that this was a hereditary trait as the father walked with his head forward ever since she could remember. However, within two months these children, six and eight years old respectively, had excellent posture, and have continued thus for the last year and a half. Pot-belly also responds well to exercises, over half were moderately or greatly improved in the Day Nursery group, and all of the private practice group showed improvement excepting the boy who did not take the exercises more than once. Half of this group were entirely cured. One of the boys who had poor chest development had a congenital stenosis of the larynx which caused the defect, his larynx is now normal. His chest is almost normal now, in contrast to the marked sternal retraction of two years ago, but he still has outward flaring of the lower ribs.

Undoubtedly, the above results could be improved upon with more frequent sessions. Also, it is well to remember that correcting the standing posture alone is not enough. We should try to improve the manner⁴ of walking. A good dancing master who has a knowledge of postural deformities can be of great service to these children.

Exercises for Knock-knee

- 1 (a) Massage and (b) Press knee out. Combine with exercises for weak feet.
- 2 Lie on back. Bend knee up and at the same time out aside from hipline. When stretching leg use resistance for strength.
- 3 Feet apart, toes pointed, knees stiff. Raise legs up slowly, return, repeat three times.
- 4 Put feet sole to sole, bend knees, return five times.
- 5 Lie on back, turn feet out from hip, then turn them back (repeat five times).
- 6 Standing—Place one foot on chair (hands on hips) keep knee straight, then bend forward, trying to touch knee with nose.
- 7 Stand and try to press calves of legs together.

8. Hobby horse. (1) Massage every morning and night. Forcibly straighten 10 minutes daily (2) Bicycle riding Horseback riding

Lordosis

- 1 Limbering-up exercises
2. Stand at "attention"
- 3 Stand against wall and try to touch wall with entire spine.
- 4 Raise arms above head, bend forward (straight knees) touch floor with hands Touch knees with your nose.
- 5 "March" bending knees way up
- 6 "High kick."
- 7 (a) Sit on floor, straight back, straight knees (b) Place hands behind neck, pulling elbows back and shoulder blades together (c) Rest, placing hands behind you on the floor Then repeat exercises (d) Repeat whole ten times
- 8 "Attention."

Exercises for Weak Feet

- 1 Toe raising
2. Toe raising, deep knee-bending, return to toe raising heels down (five times)
- 3 Walk in straight line for five minutes in such manner that when the heel strikes the floor, the rest of the foot pivots inward forty-five degrees
- 4 Turn feet on outer border, return (repeat ten times)
- 5 Raise toes off floor
- 6 Walk on tip-toes (feet turned slightly inwards) as much as possible.
- 7 Lie on back, place sole against sole, knees bent, stretch (repeat five times)
- 8 Ostrich step
- 9 Pick up a dozen marbles with toes and put into a cup

Curve

- 1 Place right hand behind neck, left hand on hip or higher Then bend to the left.
2. Make fists of hands, place right fist on top of your head, left behind your back then bend to your left and push with your fists in different directions
- 3 Lie on right side, have someone hold your feet down, then place right hand behind neck, left hand on hip then raise off bed.
- 4 Sit on floor, straight legs, straight back. Have someone take hold of your hands and pull them up hard This is a left dorsal curve, chart. If patient has a curvature to the right, the exercise should be taken in the opposite direction.

Exercises for Round Shoulders

- 1 Arm swinging, head up
- 2 Fold hands together behind back, pull shoulder blades together
- 3 Sit with a wand or broomstick across back with arms pulled back by this
- 4 Place hands behind neck and pull elbows as far back and up as you can.
- 5 Make fists of hands, cross hands across chest, then throw arms out-back-up (ten times).
- 6 Lie on stomach Have someone hold your feet down. Then place hands behind neck and raise off bed (or floor), pulling elbows up and back as far as possible.
- 7 Walk with palms of hands turned out. In order to get full benefit from these exercises, they should be done using effort so that the exerciser feels a strain at the end of each movement. They should be done effortlessly

Abdominal Exercises for Pot-Belly

(Always start with a few limbering-up exercises)

- 1 Lying down (a) Pull abdomen in as much as you can (b) Expand it. Watch breathing This exercise is more effective if a weight such as a book is placed on the abdomen (ten times)
 - 2 Bicycling in the air
 - 3 Lie on floor Sit up without assistance or elbows
 - 4 (a) Stand along side of wall Try to touch it with the entire spine. (b) Take arms down. Take step away from the wall Hold that posture.
 - 5 Swing down, touch floor with hands, without bending knees
 - 6 Deep-knee-bending Place hands between knees on floor Then with a quick jump, throw legs out and back holding stomach in and contract buttock muscles
- (Always finish with a few breathing exercises)

Summary

1 Twenty-six children with postural defects at a Day Nursery and twenty-four patients in private practice were given corrective exercises regularly by a posture worker under the supervision of a pediatricist The age varied between one and one-half years and eleven years Many of these children had these posture defects for several years without improvement before this treatment was started The exercises were conducted twice

weekly at the nursery for five months and weekly or at less frequent intervals at the office with the private practice group for from two months to one and one-half years

2 Over ninety per cent of the children were benefited to some degree by the exercises. About one-third were cured entirely of all postural defects and the majority of the others showed marked improvement

3 The best results were obtained in children under six years of age

4 Lateral curvature of spine and holding head forward were most readily cor-

rected. Knock-knees and flat feet were remarkably improved in about eighty-five per cent of the private practice group of children

5 The advisability and feasibility of having exercise classes for children with postural defects is pointed out

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References

- 1 Klein, Armin *Children's Bureau, U S Dept Pub #164*
- 2 Klein, Armin and Thomas, Leah *Ibid #219*
- 3 Good Posture in the Little Child *Ibid, #219*
- 4 Andy, Nicholas (Paris) *Eng Trans London, p. 224, 1743. Quoted in The Practitioner, #807, vol. 3, page 318 Philip Wilks, Postural Deformities in the Adolescent*

PICKING THE RIGHT OFFICE ATTENDANT

A doctor's practice may be helped or marred by his choice of an office attendant. To hire just a young lady for your office, who has no special qualifications beyond her good personal appearance, is a big mistake, declares Dr L R Effler, of Toledo, in the *Ohio State Medical Journal*. She must be a help to you in more ways than wearing a nice, white uniform if you expect to impress people of the right class and see your business go forward by leaps and bounds.

To take a young high school girl into your office just because you can hire her cheaply is no asset. She will cause you many gray hairs in her training-process. Naturally, of course, there are exceptions to this rule. This is especially so if such a young lady has promise far above the average. In general, your office attendant should be mature enough to be beyond the giddy stage.

It is much easier to hire a girl who is already trained. It becomes only a question then of whether she fits into your or your patients' personalities.

The nature of your business must decide whether you need a "trained nurse" or a "trained secretary."

If your work is mostly technical and demands both assistance and a large use of instruments, you need a nurse. This is especially true in ear, nose, and throat practice. In this field, both examination and treatment may be somewhat painful because you are dealing with organs of special sense. Steadying of the head by a competent attendant gives a patient a feeling of greater security. Moreover, the

sight of blood or pus or a fainting patient is "old stuff" to a trained nurse, whereas, to a trained secretary, they may be the cause of shudders and a weak stomach on her part when you need her most.

Lastly, a trained nurse will know instinctively not only the routine of instrument-sterilization but also the fine points of oiling and putting the instruments away in good condition for a future day.

If your work is mostly non-technical and entails only the routine of examination, you may not need a trained nurse but a trained secretary. In other words, her business with the patient may begin and end with ushering the patient in and out of your sanctum. For the rest, her duties are concerned largely with your dictation of letters and reports and the keeping of your books and accounts.

The more enterprising nurses have long since realized that their field is overcrowded, that they cannot stop with the mere winning of an R N degree, but that they must go on either into postgraduate work or fit themselves with stenography and typing for secretarial duties in doctors' offices. If a trained nurse has not shown enough enterprise and foresight to do these things, she will be of very little practical use to you.

All things considered, the trained nurse, who at one moment can assist you competently in your medico-surgical office needs and at the next moment can handle your secretarial wants efficiently, makes an ideal combination and wins first place as a doctor's office attendant.

EFFECTS OF SO-CALLED ENSOLS ON NORMAL THYROID AND TESTICULAR TISSUE

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Introduction

Enthusiasm over the use of various bacterial preparations in the treatment of malignant disease has experienced cyclic ascendancy and descendancy following the announcement, some forty years ago, by Coley¹ that certain tumors responded favorably to the use of these products. Recently Connell² resuscitated the concept that, after all, the problem of cancer therapy might lie in the realm of physiological bacteriology. About six years ago Connell became interested in the observation that needling the lens would in many cases cause disappearance of the cataract, presumably due to ferments present in the aqueous humor. The lytic effects of these ferments were not entirely specific however, since when they were injected into the lens of the living subject, they caused not only destruction of the lens, but also of other parts of the eye.

The thought of using a proteolytic organism which would generate different kinds of enzymes depending on the particular kind of media on which it grew presented itself. Specificity of action of the enzymes might then be expected to follow the need of the organism to cause breakdown of the precise type of protein present in the medium. Such a solution was prepared by inoculating with *B. histolyticus*, a medium containing only lens protein. A sterile filtrate of this solution was found to digest *in vitro* lens protein, but not casein or gelatin. It is easy to understand why the idea occurred to Connell that the same principle might be applied to the treatment of cancer, and in an early experiment he inoculated with *B. histolyticus* a piece of scirrhous carcinoma immersed in salt solution. After a period of incubation the cancer cells were observed to be digested. The sterile filtrate, obtained by passing the fluid through a Berkefeld candle was found to produce "much more rapid lysis of the cancer cells than took place in the con-

trol tubes undergoing sterile autolysis." The employment of these so-called "ensols" in the treatment of human cancer was a natural consequence of these experiments. Among the favorable results reported by Connell following this type of therapy were (1) disappearance of cachexia and gain in weight, (2) arrest, softening, and absorption of visible tumor growth, (3) decrease in the amount of pain with resultant diminution in the quantity of sedatives required.

The degree of amelioration which Connell claimed for ensol seemed distinctly encouraging and clearly demanded that this work be continued. If the premises on which this line of therapy be correct, would not theoretical considerations suggest the formulation of a more general principle along with a more extended biological application? If an effective ensol for lens substance and tumor tissue can be prepared, why not one for an over-active thyroid or adrenal gland, or against the acid secreting cells in the stomach, against leukemia, or even against specific bacteria?

Gye³ using filtrates prepared by Connell's method was able to observe no effect on the growth of mouse tumors. Pommerenke⁴ found that the injection of a sterile filtrate of *B. histolyticus* growing on the Brown-Pearce rabbit epithelioma had no apparent effect on the rate of growth of this tumor or upon its microscopic appearance. Even when the tumor was propagated through two generations of hosts, both of which had received injections of the filtrate before and after inoculation with the tumor, its highly malignant nature was not halted.

Hoping to gain further information concerning the application of ensols to different types of tissues, the following experiments were undertaken.

Experimental

Six healthy young adult male rabbits, weighing 3-3.5 kilograms each, underwent

right hemithyroidectomy. Because of the small size of the glands, the specimens were pooled. These were handled aseptically, placed in thirty-five c.c. of 85 per cent sodium chloride solution, inoculated with *B. histolyticus* (American type culture collection #611), incubated anaerobically under a layer of petrolatum at 37.5° C in a manner similar to that described by Connell. The sterile filtrate was then injected daily into three of these rabbits, each rabbit receiving thirty-two doses of three c.c. each by the intravenous route. Although no total energy exchange studies were undertaken, the animals remained in good health and vigor. Their weight remained quite constant and they were apparently possessed of enough functioning thyroid tissue to prevent the manifest symptom of myxedema. The experimental rabbits could not be grossly distinguished from the controls.

On the day of the last filtrate injection one of the three treated rabbits and one of the controls were killed and the remaining halves of the thyroid gland removed. A similar procedure was carried out on the four remaining rabbits five days later. The glands of the animals which had been injected were compared macroscopically and microscopically with those of the controls, but no significantly discernible difference could be recognized. This experiment therefore failed to demonstrate an antithyroid ensol.

Four healthy adult male rabbits whose fertility had been established underwent unilateral castration. From their testes, isoenols were prepared in the manner prescribed above. Each rabbit then received from thirty-five to forty-two daily intravenous injections of 3 c.c. each of the filtrate prepared from his own testis before again serving the same two does with which he previously demonstrated his fer-

tility. During this time the animals remained healthy, normally active, and sexually vigorous. Each of the eight does again became pregnant and bore normal appearing litters of three to seven young each. The young thrived and were weaned in due time. The fertile matings occurred on the first, second, third, seventh, eleventh, twelfth, eighteenth, and twenty-sixth days respectively after cessation of the injections. The remaining testis of each of the four rabbits was removed on the fourteenth, sixteenth, twentieth, and thirty-second day respectively after the last injection, and the stained section microscopically compared with the one from the other testis which had been removed earlier. All slides showed active spermatogenesis in thick-walled seminiferous tubules. Innumerable spermatozoa were noted within the lumina. No degenerative changes were recognized either in the germinal or interstitial tissues. Here again the experiment failed to demonstrate a bacterial filtrate specifically affecting the testis.

Summary

A saline solution containing thyroid gland and testicular tissue of the rabbit was inoculated with *B. histolyticus* and the sterile filtrate injected into the same animals which supplied these tissues. These injections produced no recognizable changes in the general physical condition of the animals or upon the microscopic appearance of the remaining thyroid gland or testicular tissue.

STRONG MEMORIAL HOSPITAL

References

1. Coley, W. B. *Ann. Surg.* 14: 199, 1891. *Am. J. M. Sc.* 105: 487, 1893. *Ann. Surg.* 97: 434, 1933.
2. Connell, H. C. *Canad. M. A. J.* 33: 364, 1935.
3. Gye, W. E. *Brit. M. J.*, 2: 760, 1935.
4. Pommerenke, W. T. *J. A. M. A.* 106: 1654, 1936.

WHERE TO PUT IT

Lena Svenstrum had worked for two years for a certain family of high social aspirations and had been kept quite busy. Finally it was decided that all members of the household must be vaccinated, but the question came up, where to vaccinate Lena so it would not interfere with her work.

"How about an arm?" asked the doctor.

"I'm afraid she would not be able to do the dusting and other housework," said the lady of the house.

"The leg should be the place then," sug-

gested the doctor.

"That would interfere too," objected the lady, "because she has to get down on her knees every day to do the scrubbing."

"Well," exclaimed the M.D., scratching his head, "I don't know, I'm sure, just where to vaccinate her so it won't interfere with some of her work. Have you any suggestions, Lena?"

"Vell," replied Lena, pondering deeply. "Ay don't get mooch time to sit down!"—*Ills. Med. Jour.*

DIABETES MELLITUS

Impotent Insulin a Factor in Supposed Insulin Fast Diabetes— Report of Cases

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Medicine Division

Over the past few years a number of instances have been reported where the previously adequately controlled diabetic showed marked fluctuations in the diabetic state with severe ketosis, coma, and in some cases, death

Through our diabetic clinic, we have had occasion to study the incidence of the so-called insulin fast group

Insulin Assay

A review of the literature indicates no reference to insulin assay in the insulin fast cases of diabetes reported

For the past year we have experimented with a number of insulin precipitants and have found that a simple colorimetric determination with precipitate of insulin could be readily utilized for accurate assay

A simple procedure for insulin assay for hospital and private practice is made as follows

Standard a solution of crystalline insulin U-40

1 c.c. unknown in colorimetric tube

Add 5 c.c. protamine solution

1 c.c. standard in second colorimetric tube

Add 5 c.c. protamine solution

Read in colorimeter

Hexamine B P 64% may be used instead of protamine.

If standard is set at ten, and unknown reads ten, unknown contains forty units of insulin per c.c. and is one hundred per cent potent. If unknown reads at twenty, insulin content is twenty units per c.c. and is fifty per cent potent

Any of the standard colorimeters may be used for this purpose. We have used, with equal accuracy, the Helge, the Duboscque, and the Electric Photometer

This precipitate test was made on fifty vials of fresh insulin taken from fifteen different lots. The minimum reading in this group of tests was ninety-seven per cent and the maximum reading was one hundred and ten per cent

Biological Check

Rabbit subjects Four rabbits, each weighing two kg. were given fifteen clinical units of the insulin subcutaneously. Blood sugars were examined before injection and showed an average of 138 mg. There was no appreciable fluctuation in the blood sugars examined one hour after injection of impotent insulin

One of the rabbits was given two additional doses of fifteen clinical units or a total of forty-five clinical units. After twelve hours, there were no symptoms

Twenty-four hours later the rabbits were each given fifteen clinical units of fresh insulin which showed a potency of between ninety-seven and one hundred and ten per cent. Shock and death resulted in an average of three and one-half hours

Human subject White male, age twenty-four, controlled by seventy units of insulin daily, showed an average morning blood sugar of 330 mg

On the first day, at 8 A.M., he received 170 grams carbohydrates with no insulin. At 11 A.M., blood sugar was 700 mg

On the second day, at 8 A.M., he received 170 grams carbohydrates and forty-five units of insulin (100% potent). At 11 A.M., blood sugar was 285 mg

On the third day, at 8 A.M., he received 170 grams carbohydrates and forty-five units insulin X. Blood sugar, at 11 A.M., was 715 mg

Thus insulin X was proven of 0% potency by the precipitate test, the rabbit test, and the human test

Case Reports

CASE 1 White male, age eighteen, height 62", weight eighty-five lb., has been a known diabetic for five years, and under our observation for the past year. During this time, he was sustained on C 150, P 70, F 90, Insulin 10-0-10, blood sugar approximated 235 mg

December 25, patient was admitted to hospital in coma with glycosuria and heavy ketonuria.

On examination, insulin used prior to coma showed a potency of thirty-seven per cent so that instead of 10-0-10 units, he was actually getting 37-0-37 units

December 27, patient was stabilized on original diet with 45-40-45 units of insulin. This dosage was maintained for a week. Morning blood sugars approximated 266 mg

On examination, this insulin showed a potency of twenty per cent so that instead of 45-40-45, he was actually getting 9-8-9 units

January 14, patient was given fresh standard insulin with a potency of 108%. He reluctantly agreed to take just 10-0-10 units instead of 45-40-45 and was adequately controlled. Blood sugar approximated 148 mg

January 18, patient began to take fifteen units protamine zinc insulin daily. Morning blood sugar approximated 105 mg. Patient felt well and was in good physical condition

CASE 2 White female, age forty, height 65", weight 164 lb, has been a known diabetic for seventeen years, and under our observation for the past two years. During this time she was sustained on C 110, P 70, F 50, Insulin 50-10-30, blood sugar approximated 290 mg

January 18, patient was admitted to hospital in coma with glycosuria and heavy ketonuria. On admittance she was given fifty units protamine zinc insulin. During the next twenty-four hours she received 160 units standard insulin. Twelve hours after admittance, glycosuria and ketonuria cleared

January 19, patient was stabilized on original diet with ninety units protamine zinc insulin daily

On examination, insulin used prior to coma showed a potency of 0%

It is interesting to note that patient, while at the hospital received 210 units of insulin, which is exactly the amount lacking before coma

CASE 3 White female, age fifteen, height 60", weight 110 lb, has been a known diabetic for five years, and under our observation for the past two years. During this time, she was sustained on C 250, P 70, F 70, blood sugar approximated 290 mg

Patient was admitted to hospital in coma. During the first twenty-four hours, she received 3000 cc fluid, 100 grams glucose, fifty units protamine zinc insulin, and 160 units standard insulin

On examination, insulin used prior to coma showed a potency of 0%

Patient was stabilized on original diet with ninety units protamine zinc insulin.

CASE 4 White male, age twenty-four, height 72", weight 160 lb, has been a known diabetic for twelve years, and under our observation for the past five years. During this time, he was sustained on C 420, P 90, F 80, Insulin 45-0-35, blood sugar ranged from 330 to 380 mg

January 25, patient complained of glycosuria and heavy ketonuria. On examination, insulin showed a potency of 0%

February 4, patient was stabilized on C 150, P 70, F 70, and fifty-five units protamine zinc insulin daily

CASE 5 White female, age fifty-nine, height 61", weight 100 lb, has been a known diabetic for four years. During this time, she was sustained on C 150, P 90, F 90, Insulin 25-0-20

January 25, patient was admitted to hospital in coma with glycosuria and ketonuria. She received 150 units insulin daily for three days

On examination, insulin used prior to coma showed a potency of 0%

Patient was stabilized on C 150, P 70, F 70, and fifty-five units protamine zinc insulin daily

CASE 6 White female, age seventeen, height 60", weight 115 lb, has been a known diabetic for three years, and under our observation for the past two years. During this time, she was sustained on C 234, P 83, F 98, Insulin 45-0-45, blood sugar approximated 625 mg

Numerous morning blood sugars were examined and showed levels of 500 mg or higher

On February 28, 1936, a blood sugar time curve was made. (Chart I)

September 13, patient was admitted to hospital in coma and was given 2500 c.c. fluid and 170 units insulin. Urine showed four plus sugar and heavy acetone. Patient died

Samples of insulin from vials of the same lot as used by patient showed a maximum potency of twenty per cent.

Autopsy was not obtained but assay of insulin potency would indicate that the patient died from diabetes and lack of insulin control

CASE 7 White female, age seventeen, height 60", weight 127 lb, has been a known diabetic for nine years, and under our observation for the past two years

For the first eight months of 1936, she

was sustained on C 160, P 60, F 30, and 135 units standard insulin daily. For the latter part of 1936 and the beginning of 1937 she was sustained on the same diet with 150 units protamine zinc insulin daily. Patient was going to school and carrying on normal activity.

During the past two years, she had four episodes of ketonuria and ketonemia followed by severe acidosis associated with either intense nausea or nausea and vomiting. A close investigation revealed no history of cyclic vomiting.

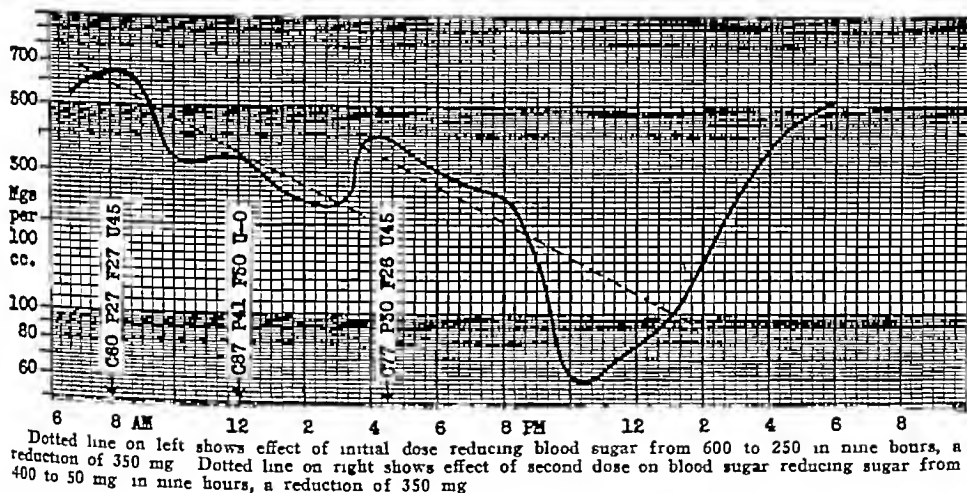
January 19, 1937 patient was admitted to hospital in coma with Kussmaul breathing,

CASE 8 White female, age fifty-six, height 62", weight 115 lb, has been a known diabetic for eighteen years, and under our observation for the past 1½ years. During this time, she was sustained on C 150, P 70, F 100, Insulin 65-0-40.

August 21, patient was admitted to hospital in coma. During the first sixty hours she was given 1850 units of insulin. Glycosuria and ketonuria persisted. She received from 200 to 400 units of insulin and hypodermoclysis daily but showed no sign of recovery.

On repeated examination, urine showed four plus acetone and twenty-five mg urea

CHART I—BLOOD SUGAR TIME CURVE
(CASE 6) DOSE U 45-0-45



nausea, and acetone breath. Urine showed four plus sugar and four plus acetone. Acidosis gradually increased before onset of coma and glycosuria.

During the first twenty-four hours, she was given 150 units protamine zinc insulin and 400 units crystalline insulin. Acetone and sugar cleared and patient showed full recovery.

February 20, patient was stabilized on original diet with 150 units protamine zinc insulin which was taken in one dose. Blood sugars were examined twenty-four hours after injection. Blood sugar was seventy-six mg.

February 21 blood sugar was ninety-six mg.

February 22 blood sugar was fifty-four mg.

On examination, insulin showed a potency of 100%.

nitrogen. Blood sugar ranged from 76 to 500 mg.

Patient died of B. Welchii infection of the thigh one month after admission to hospital.

On examination, samples of insulin from vials of the same lot as used by patient showed a maximum potency of twenty per cent.

CASE 9 White female, age fifty-nine, was brought to the hospital complaining of progressive asthenia, polyphagia, polydipsia, and loss of weight. She had been in the hospital one year before with the same complaints and responded to routine treatment.

While under observation, patient lost rapidly in her tolerance for food despite dietetic and insulin treatment.

On admittance to hospital, breath was strongly acetone, tongue parched, mucous

membranes dry and pale Thyroid palpable Chest was sunken Breasts were atrophied Heart was hypertrophic Abdomen was scaphoid with tenderness in the right upper quadrant Gall-bladder was full Extremities were poorly developed Tendon-jerks were absent Larger blood vessels were thickened and tortuous

Blood sugar was 375 mg, urea nitrogen forty-two Urine showed four plus sugar and ketone bodies

In the course of a day she was given 145 units of insulin but there was no change in sugar content of either the blood or the urine.

On the following day, she was given 265 units of insulin This dosage was maintained for a week and patient showed marked improvement in general physical condition Glycosuria was less severe

She was placed on C 180, P 70, F 90, Insulin 80-80-80 Blood sugar was 390 mg Urine showed three and one-half per cent sugar and ketone bodies

Diet was changed to C 120, P 50, F 50 and insulin dosage to 190 units daily Acidosis became more severe and insulin dosage was changed to 210 units daily This dosage was maintained for two weeks Blood sugar persisted between 250 and 350 mg Urine sugar ranged from two to three per cent

Repeated attempts to increase insulin dosage resulted in insulin shock, and in spite of treatment, hyperglycemia and acidosis persisted Patient died of pneumonia

Literature and Discussion

The terms insulin resistant, insulin fast, and diabetes resistant to insulin have been used by many writers^{2,3,8,12} without any agreement as to the definition of these terms

Our own experience with rabbit reaction to insulin corresponds to that reported by other workers^{1,8} We have observed marked variations in the effect of insulin on carbohydrate metabolism and glycemic responses in the individual human as in the individual rabbit

The commercial houses recognize this factor, and calculate an average of the reactions of each rabbit out of a group of 50 or 100 rabbits for each potency test

MacBryde³ calls attention to the incidence of relative resistance to insulin in uncomplicated diabetes mellitus and reports three cases which he so classifies

Altschuler and Gould² report, as insulin

resistant, a case which showed tumor of the pituitary on autopsy In the case they reported, a thirty per cent increase in insulin dosage resulted in a twenty per cent drop in blood sugar In this case, the carbohydrate insulin ratio was one gram carbohydrates per unit insulin

The writers have repeatedly emphasized the relationship between fatty liver and cyclic vomiting^{6,7,13} but we have never observed any relationship between fatty liver and impaired sugar tolerance

Ross⁵ describes thirteen cases of diminished sugar tolerance in alimentary diseases in infancy with rapid recovery on liver therapy He attributed the impaired sugar tolerance to the inability of the liver to produce insulin kinase

While it can readily be seen that a fatty liver would favor a nondiabetic ketosis, it is difficult to see how it would favor hyperglycemia

Out of a group of 500 insulin treated diabetics, 100 of which are of the juvenile type, Case 7 was the only inexplicable instance of acute exacerbation of the diabetic state

Case 9 was reported by Feinblatt⁴ and was included in this series because of the similarity of the clinical picture

Acromegaly

B K., white female, age fifty-four, height 60", weight 170 lb., was a progressive acromegalic Thyroidectomy was performed in 1936 While under observation for acromegaly, patient developed polyuria, loss of weight, thirst, hunger, glycosuria, and hyperglycemia

She was stabilized on C 200, P 70, F 70, and 20 units protamine zinc insulin daily Patient was adequately controlled on this regime Morning blood sugar, on several examinations, was eighty mg

Loss of Insulin Potency

Careful investigation was made of the factors that were pertinent to the loss of insulin potency in the above cases The only consistent factor was improper storage In all cases, the lack of proper refrigeration was the underlying factor in deterioration

Of the nine cases reported in this series, seven were admitted to the hos-

pital during acute exacerbation of the diabetic state due to the use of an impotent insulin

In Cases 6 and 8, the insulin was examined for potency after death. Samples from vials of the same lots as used by patients showed a maximum potency of twenty per cent.

In Case 6, (seventeen year old girl) autopsy was not performed but assay of insulin would indicate that patient died from diabetes and lack of insulin control.

In four of the other five cases where insulin assay was calculated, insulin showed potency of 0%, and in

the other case potency was twenty per cent. In these five cases, the use of crystalline insulin resulted in immediate and complete recovery.

Summary

1 Nine cases of diabetes mellitus with acute exacerbation of the diabetic state described. Insulin assay showed impotent insulin in seven of these cases.

2 Case of acromegaly, insulin sensitive.

3 A simple quantitative method for insulin assay presented.

616 CARLTON AVE.

References

- 1 Scott and Dotti *Arch Int Med* 50 511, 1932
- 2 Altschuler and Gould *Annals Int Med*, 9 1595, 1936
- 3 MacBryde *Arch Int Med* 52 932 1933
- 4 Feinblatt *Medical Clinics of North America* p 1077, 1928
- 5 Ross *The Lancet* 5897 556, 1936
- 6 Feinblatt and Ferguson *Journ Lab & Clin Med* 22 249 1936
- 7 Idem *Medical Record* p 67 1937

- 8 Zeckwer *Am J M Sc*, 182 153, 1931
- 9 Root *New Eng J of Med* 201 201, 1929
- 10 Rothery F, Rudolph, Villiere, T and Villiere H *Bull et mem Soc med d hop de Paris*, 53 1086, 1929
- 11 Labbe *Bull Acad de med Paris* 97 21, 1927, *Rev belge sc med*, 3 465, 1931
- 12 Falta *Klin Woch* 3 1375 1924
- 13 Feinblatt, Alpert, and Ferguson *Medical Record* in publication

Connecticut Clinical Congress

The annual Clinical Congress of the Connecticut State Medical Society, which was attended last year by 633 physicians from ten states, will be held this year in New Haven on Tuesday, Wednesday, and Thursday, September 21, 22, 23. The registration fee for the entire Congress will be \$2.00. The morning sessions, beginning at 9:30, will be held in the auditorium of the Sterling Law Buildings. The afternoon and evening sessions, beginning at 2:15 and 8:15 respectively, will be held in the buildings of the New Haven Hospital and the Yale School of Medicine. The evening meetings are section meetings which are open to all members of the Congress.

The complete program of the Congress was published on page 1522 of the September 1 issue of this JOURNAL.

Let us ask ourselves quite frankly, Has the medical service in the United States in the last twenty-five years been effective? The final test of medical service is the crude and gross mortality of the people, and we have in the United States a crude mortality less than in any country that has either socialized medicine or compulsory health insurance.

The next question is, Has the practice

The papers read before the Congress or complete abstracts of them will be published in subsequent issues of the *Journal of the Connecticut State Medical Society*.

On Tuesday and Wednesday afternoons members of the Congress will meet for a social hour at the New Haven Medical Association.

Section dinners will take place on the evening of the meeting of the respective sections.

The Women's Medical Society of Connecticut will hold a luncheon meeting in conjunction with the Congress. All women in medicine will be welcome.

Complete program and registration card can be obtained from the Chairman of the Committee of Publicity and Registration, Dr. Maurice J. Strauss, 41 Trumbull Street, New Haven, Conn.

of medicine in the last twenty-five years in the United States been scientific? A medical profession that has produced liver therapy, practically the entire structure of vitamin knowledge, all the information on bone transplantation, and modern orthopedic surgery certainly has a right to be proud of its scientific progress.

—Charles Gordon Heyd, M.D.

RUBIN TEST WITH FATALITY

CHARLES WEITZMAN, M D and MORRIS COHEN, M D, *Brooklyn*

The transuterine insufflation of air or gas has become one of the most useful units in our diagnostic and therapeutic armamentarium

Kelling in 1910 had first used the transperitoneal inflation of air through the abdominal cavity Rubin in 1913, first introduced air into the abdominal cavity through the cervical route¹

Previous to this procedure, if the state of the tubes in a sterile patient were not known, a laparotomy was indicated The value of this test is evident, glandular therapy, dilation and curettage, cervical dilation with stem pessary are futile if the tubes are sealed Practically eleven per cent of female sterility is due to tubal disease In women under twenty-five years it is higher—about fifteen per cent

The method is indicated in all cases of primary sterility, where all the contributing causes have been eliminated, following gonorrheal pelvic inflammations, and following a pelvic exudate where resolution has taken place It can also be used in cases of a previous peritonitis due to an abdominal disease (appendicitis) and in cases of pelvic infection following childbirth The procedure is also of value after operation for unilateral ectopic pregnancy to discover the patency of the other tube, and after salpingostomy for sterility to determine if the operation was successful

The contraindications to the use of the test are very important^{4 5}

1 The test should not be used in acute or subacute inflammations of the cervix and tubes A white blood count, vaginal smear, and sedimentation rate is indicated in case of uncertainty

2 The test should not be done in the menstrual or premenstrual phase, because of the theoretical possibility of endometrial dislocation and consequent formation of chocolate cysts

3 It should not be used in a patient with abnormal bleeding This condition is supposed in some way to favor embolization The test would be contraindicated in severe constitutional diseases, such as severe cardiovascular disease, severe diabetes, or active pulmonary tuberculosis¹

The Rubin Test should be performed three-four days following the menses The technic varies with the clinic, but the apparatus usually consists of a gas tank, usually CO₂, water bottle, cannula for the uterus, and a manometer The volume of gas entering the uterus and eventually the peritoneal cavity should be under 200 c.c. per minute When the patient has patent tubes the pressure goes from forty mm of mercury to about sixty or one hundred in fifteen to thirty seconds and then drops to forty again In non-patent tubes, the pressure rises rapidly to 200 in about thirty seconds, and does not fall rapidly The question of whether one or both tubes are occluded can be determined by the well-defined methods of skiography, auscultation over both sides of the abdomen, and the subjective feel of colicky pain on one or both lower quadrants by the subject³

That the test is not without its dangers has been recognized for a long time by many clinicians, although this is usually denied by Rubin Dr Gerald D Meench reported two cases from the Medical Examiner's office where fatalities resulted In one case after the tubes were found closed by the test, the operator did a dilation and curettage, the patient promptly went into collapse and died The necropsy demonstrated numerous gas bubbles in the femoral vein and the inferior vena cava²

Rubin in analyzing this case believes that the curettage was probably done first, or that it was done so soon after, that the tubes and uterus still contained air in large quantities In another case of sudden death, the gas flowed only when a pressure of 200 mm of mercury was registered The necropsy revealed gas and a turbid fluid when the abdomen was opened, a small tear in the small intestine, and a spot (not a tear) on the uterus The spot was not caused by the cannula and was interpreted as gas perforating the uterus as well as the intestine The official cause of death was surgical shock⁶

Severe syncopal reactions have been

reported in the literature many more times than death. Rongy had two cases which went into such severe collapse that the lives of the patients were in extreme danger. Rubin had one patient with a severe syncopal attack which he attributed to a traumatization of the cervix with a cannula and subsequent small air embolization. In Rongy's large series of cases several infections, several pelvic abscesses, and one case of parametritis occurred.⁷ That a jet of gas can take with it bacteria was experimentally proved by Volkmann who tried to copy as near as possible tubal conditions.⁹

Another interesting phenomenon reported was a case of paroxysmal tachycardia following a test, which was apparently due to pressure of a large gas bubble under the left diaphragm, because the tachycardia and the alarming syncopal symptoms subsided on putting the patient in a horizontal position.

Polak also had seen several alarming cases,⁸ and other observers, notably in the foreign literature have observed several deaths due to air embolization.^{9, 10}

To illustrate further that the tubal insufflation test is not entirely innocuous in spite of all due precautions taken, the following case is reported.

Case Report

M. C., middle-aged, obese, Italian female, complained of pain all over her body for one year, as well as weakness and choking sensation in her throat for six months. Spells came on once a month and lasted for ten minutes to one hour. She was obviously a hysterical but otherwise healthy individual.

Obstetrical History. She was married twelve years without having any children. She had had an abortion two months after marriage, with no sequellae. Her periods were irregular before an operation, which consisted of D & C and insertion of pessary two years ago, after which they became regular and lasted for five days. There was no history of genitourinary disease. Her Wassermann was negative and her husband's Wassermann was also negative. Spermatozoa were motile and abundant.

Pelvic Examination. Her uterus was small and adnexa were not palpated. There was no laceration of the cervix and no dis-

charge. The examination was essentially negative.

Five days after the last day of her period a Rubin test was done. The rate of flow of oxygen was 150 c.c. per minute and the pressure read 125 mm. of mercury. The patient suddenly complained of extreme pain, developed a convulsive seizure, and became cyanotic. It appeared as if the patient was having an epileptic attack. Breathing became stertorous, pulse became imperceptible, heart sounds were not heard, and the patient became comatose. The patient ceased to breathe, but under artificial respiration and stimulants, respiration was restored, although it was heavy and labored. Heart sounds became audible after three to four minutes. The condition of coma persisted and the following day a neurological consultation was deemed advisable.

Neurological Consultation. Patient is in deep coma. Pupils are at first contracted but later became more dilated. They react to light promptly. Fundi are negative. No neck rigidity or Kernig. Eyes opened, the right deviated outward and the left inward and down (Skew deviation?). Supraorbital pressure produces no grimacing. Breathing regular, pulse rapid. Upper extremities show no alteration of muscle tone. Tendon reflexes in upper extremities are not obtained. The fingers are partially flexed. Abdominal reflexes are not obtained. There is spasticity of both lower extremities. During the examination, the left leg becomes hypertonic and the foot inverted. Knee and ankle jerks are obtained. The left knee jerk is more active than the right. There is a definite left Babinski. There is a defense withdrawal of both legs to pin prick of soles.

The history of tetanoid type of seizures with at first retraction of head and pes-equinovarus posture of right foot, and the present findings indicate a clinical decerebrate rigidity syndrome, etiology of which is obscure. Further observation is indicated. Spinal tap was done, fluid allowed to escape drop by drop. There was slight pressure.

Test by Dr. Rabiner

Spinal Cell Count 9 cells per cu. mm.
Spinal Fluid Wassermann Negative
Blood Wassermann Negative
Blood Calcium 16 mg%
Blood Sugar 150%
Blood Urea-N 15 mg%

For the next three days the patient's coma deepened and she finally expired.

The blood and urinary findings as well as the blood count were not remarkable.

The necropsy revealed an old bilateral adnexitis, with tubal closure, a left dermoid cyst with the left tube sealed over the cyst and communicating with it by a pin-point opening. The cyst contained air and pale yellow fluid. No obvious opening from the tube wall into the peritoneal cavity on the left side could be found. The right tube showed no opening demonstrable into the peritoneal cavity. The uterine cavity, cervix, and vagina showed no points of injury which might be attributed to sharp instruments. Pelvic veins were not thrombosed or otherwise altered. The urinary bladder and rectum were negative.

Sections of the brain showed recent numerous petechial hemorrhages, all perivascular and limited strictly to the white matter. These were most pronounced in the frontal lobes and internal capsules. The vessels showed numerous ruptures of the wall, these being more pronounced in the more massive hemorrhages.

Aside from this finding the noninvolved vessels in both the gray and white matter showed a mononuclear infiltration of the perivascular spaces. There was no necrotic ring of tissue surrounding the vessel or separating the vessel from the hemorrhagic area, but the tissue peripheral to the hemorrhage was unusually necrotic and showed

a moderate Gitter cell reaction. Similar lesions were found in the white matter of the cerebellum and occasionally one in the medulla. The ventricles were not dilated and their walls showed no changes. There was no unusual sclerosis of the basilar vessels.

Findings Multiple Cerebral Hemorrhages.

Diagnosis Bilateral adnexitis. Dermoid cyst. There was air in both Fallopian tubes and in the dermoid cyst. Air embolism was present. There was no organic cause for embolic phenomenon, i.e. no thrombi, no fat, bacterial, or fibrinous emboli.

Thus we see a fatal result from a supposedly innocuous test, even though due respect was given to all precautions that were considered necessary. It would seem necessary to investigate this serious phenomenon by further study, as a diagnostic procedure should at all times be free from danger and work reliably well.

847 EASTERN PARKWAY

References

- 1 Rubin, I. C. *Symptoms in Gynecology*, D Appleton and Co., 1923.
- 2 Meench, Gerald L. *J A M A*, 89 522, 1927.
- 3 Rubin I. C. *J A M A*, 90 99, 1928.
- 4 Idem *Am J Obs and Gyn*, 24 729, 1932.
- 5 Idem *Am J Obs and Gyn*, 24 561, 1932.
- 6 Idem *J A M A*, 84 486, 1925.
- 7 Rongy, A. J. *Am J Obs and Gyn*, 11 616, 1926.
- 8 Polak J. O. Discussion of Rongy, a Paper.
- 9 Sellheim *Zentralbl f Gynak*, 48 2787, 1924.
- 10 Idem *Zentralbl f Gynak*, 48 2790, 1924.

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, DR P H, *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Ancient Beliefs

Generally the belief in the bad influence of some people through their inborn power or faculty to harm by their mere presence or nearness, or by the active use of this ability, is not a sign of mental abnormality. It is one of the old superstitions which constituted the hypothesis, the science of ignorance in ancient humanity. It is one of the explanations of undesired phenomena, like sickness or ill-luck in love or misfortune or death. Along with progressive and real scientific ideas men have dragged through the centuries all sorts of convictions and faiths which now live side by side with the highest and most modern thoughts and achievements.

Many of the most common and most popular superstitions are forms or symptoms of a mass psychoneurosis or give rise to a

psychoneurosis on a huge scale and are extremely contagious. Even some persons who flatter themselves of being above irrational credulity in the occult and immune to such beliefs may be affected by crowd influence, a phenomenon well-known in the study of behavior of the individual as a part of a mob or swept by mob psychology. It is easy to find, therefore, superstitions, religious and others—like so many cobwebs in a perfect palace—among some super-civilized people with the widest culture.

All ideas about life and the world, no matter how humble their origin, if they contain the element of popular appeal, are contagious. So are emotional states. But when such ideas combine with emotions the result is a sweeping epidemic—unless it is confined to endemic proportions.

People who say, as I have often heard, "That man passing there has an evil eye," or "that woman makes you sick only when she looks at your back," or those who cross themselves when seeing a black cat and so on indefinitely, are not mentally deranged. They are just afraid of the many dangers and threats which beset life and they have not discarded the teachings of their environment as to the causes of their insecurity.

But patients suffering from some psychosis employ such existing superstitions whenever their disturbed mental state demands it, just as they take a hold of everything that comes within their sphere of knowledge.

The following case recalled to my memory the first psychopathic case I ever saw. When I came to Vienna to study medicine, after a French preliminary education, I was a mere youth and less interested in anatomy, physiology, botany, etc., than in the courses of some famous professors of law, sociology, philosophy and literature. But I soon discovered *Krafft-Ebing's* sensational course on psychiatry. I was too young and although a special student card was required because of the many laymen who invaded it, I managed to smuggle myself in with somebody else's permit. Naturally I was fascinated both by the teacher and the material and not so much by the homosexual cases, which were rather rarely presented, as by the various forms of *paranoia*. Many of them had a background of superstition, probably because of their Balkanic, Polish, Russian, Galician, Bohemian and Hungarian provenience, and the professor seemed to be particularly fond of them.

A Yugoslav patient had all sorts of pains and they all dated back to the time, several years before, when "an old woman put some drops from a tiny bottle on his left lumbar region."

The story runs like this. He had an angelic heart and one day, pitying this old neighbor who was poor and lonely, called her to his room and let her have all the food she wanted. She came the next day and the next. Then she visited the patient and his cupboard regularly until her daily meal at his house had become an established right. But once he was away and his door was locked and another time he had nothing to give her and, therefore, according to the patient, she planned black revenge. She asked him to kindly fix her kitchen washtub, which he was well able to do. He went there and, while occupied with the work, lying on the floor face down and attentive to an ill-smelling outlet

pipe, he felt the fatal drops. While he never remonstrated and never spoke about it to her, he was certain that he was right.

This *paranoid* necessity, combined with a common and ancient belief, which is rooted in primitive humanity, is due, in this case to a dissatisfied life and to a contempt for his work. He expected to make a pile in this country and was sure to have been destined to better things than those that America was forcing him to do. So his "sickness," "made" by this witch-like person, kept him away from all work. Although he was financially badly off and he was quite unhappy to be "crippled"—"perhaps for life," he added—he evidently preferred this situation to the humiliating condition in which he would have been had he continued in his menial job. This was not only an explanation of his complaint, but the most apparent one.

His belief was not touched in the first interviews. It was taken for granted. Otherwise he would not have come back. But he was told about his inborn resistance to poison and accidents and hurts, about his possible revenge against his enemy by surviving and ignoring her dark magic. He, too, had hidden in himself, some of the same powers, if he were willing to appeal to them and, without going out of his way, he could make use of them to fight his sickness. She was happy to see him suffer. The best way to counteract was to make believe that he did not care, to use autosuggestion as a reply. In order to facilitate this, work was a necessity.

After many angry reactions and rebellions against me, he finally entered my scheme. I succeeded more by incessant reiteration than by actual persuasion. But as he began to improve, his conviction strengthened. Then the result of the analysis which was made while he was unaware, was shown to him and his co-operation became closer.

Meanwhile he actually joined a club of his people and became their secretary, which was both an additional therapy and the cause of a diminishing of his subjective symptoms.

This led to a cure, after a year's work.

But let me add that the reader may get the impression that the favorable results seem to come too easily. In appearance he may be right, but one must not forget that these descriptions are abbreviated and condensed and that each of them represents hard work full of opposition and temporary failure and that the successes only are offered here.

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EDITORIALS

Change for the Better

Physicians everywhere in the state are waiting to see whether the Welfare Department's bid for medical review of its proposed new rules governing dispensaries is more than a gesture. It is generally agreed that existing admitting systems are lax and inefficient. Dispensary abuse will not cease until the State Welfare Department prescribes stricter rules and insists that they be enforced.

The dispensary laws provide substantial fines for imposters, but penalties are never imposed, although offenses are common and widespread. As a matter of fact, many dispensaries encourage the visits of ineligible, by the direct method of unethical publicity as well as the indirect invitation of lax admitting systems.

A conscientious and efficient check on applicants for clinic service is essential to protect the taxpayers and physicians against exploitation. This demands the service of skilled, tactful investigators. An untrained clerk, appointed through nepotism or political pull, is not competent to discharge this important duty properly.

Dispensaries are intended for the use of those who cannot purchase private medical service. Overcrowded as they are, they cannot serve the needy properly when their facilities are usurped by patients well able to pay for private care.

If cornered, as occasionally happens, imposters usually plead ignorance of the law. To invalidate such excuses, every admission card should contain a summary of the statutes which the patient should be required to read and sign. This would furnish *prima facie* evidence of guilt in cases of misrepresentation.

Although the dispensary law is essential to the efficient distribution of clinic service to the poor, it is disregarded, not only by unscrupulous individuals but by the hospitals and law enforcement agencies themselves. Organized medicine is glad to cooperate with the State Welfare Department in the formulation of suitable rules for the admission of dispensary patients. This will be of little use, however, unless such rules are strictly enforced.

A Proper Deduction

From Senator Bone of Washington comes a proposal to exempt medical expenses from income taxation. This suggestion is both logical and humane.

Apart from humanitarian considerations, every man, woman, and child has an economic value. Good health is an essential condition of productive man. When sickness occurs, those dependent on earned income suffer a three-fold loss.

Their "plant" is impaired, earnings stop, and they must make an actual outlay for medical expense

Is it not fair to exempt the last from taxation as a necessary expense? The personal exemption now allowed presupposes a minimum essential outlay for food, clothing, and shelter, the budgetary constants. Without these the citizen could not earn the wherewithal to pay taxes. While not as regular, medical costs are equally indispensable—a fundamental business expense if anything is.

In a pithy editorial on this question, the *New York World-Telegram* says, "The Senator sees something queer in present federal income-tax law which allows a man to deduct veterinary expenses for a cow and the cow's value if it dies, but permits no deduction of the medical expenses of a sick wife or even the funeral expenses if she dies." Senator Bone is not alone in finding such an attitude "queer."

Prolonged or serious illness, with its demands on the family purse, is a heavy financial drain on all but the rich. A law which subjects money so expended to income taxation displays a heartless indifference to the people's welfare.

The burden of illness would be considerably lightened, for the low income classes at any rate, if medical expenses were exempt from income tax. Such a provision would give a strong boost to preventive medicine by encouraging periodic health examinations and early recourse to treatment.

Epidemic Diarrhea of the Newborn

Of special interest, within recent years, is the report of outbreaks of epidemic diarrhea which solely involve groups of newborn babies resident in the nurseries of maternity hospitals. The disease carries with it a high mortality (46%). It occurs within the first three weeks of life and has particularly been observed in cities located in the north temperate zone. The onset is usually acute. An appar-

ently thriving infant becomes unusually drowsy and shows a slight elevation in temperature. A watery, yellow stool is noted and vomiting coupled with abdominal distention may occur. This is followed by signs of dehydration and marasmus, the child losing a pound or more in a day. Death is the result of secondary infections in the severe cases, whereas recovery in the milder ones is soon evident in the improvement in the clinical picture. As to postmortem findings, it can at present be said that no lesions of particular significance were found.

In a preliminary consideration of the epidemiology of this condition, Rice at al¹ feel that at present, immediate isolation of the sick infant, closure of the infected nursery, and suspension of maternity service should be carried out until it can be definitely ascertained that there will be no further outbreak. These observers feel that they are dealing with a well-defined clinical entity separate from the other diarrheal disturbances of infancy. Attention is directed to this epidemic disease in order to stimulate the interest of others in contributing to its eradication.

Keto-Acid Treatment of Pyuria

The frequency of *B. coli* infections of the urinary bladder and pelvis, particularly among female children, has led to an intensive search for a specific bacteriostatic agent. It had been demonstrated by Shohl and Janny¹ that when the hydrogen ion concentration of the urine was on the acid side of pH5, a significant inhibition of bacterial growth resulted.

The utilization of this knowledge in the treatment of pyuria was first proposed by Clark and Helmholtz² who

¹ Rice, J. L., Best, W. H., Frant, S. and Abramson, H. *J.A.M.A.*, 109: 475, 1937.

² Shohl, A. T. and Janny, J. H. *J. Urol.* 1: 211, 1917.

³ Clark, A. L. and Helmholtz, H. F. *Proc. Staff Meet. Mayo Clinic* 6: 605, 69, 1931.

succeeded in producing a physiological aciduria by feeding patients a ketogenic diet. The potent factor in this means of therapy is beta-oxybutyric acid. However, when this compound is administered orally, it is broken up into H_2O and CO_2 and hence is rendered ineffective in acidifying the urine. Rosenheim³ suggested the use of mandelic acid and was able to manifest its nontoxicity even when large doses were used.

Since the introduction of mandelic acid as an aid in the management of urinary infections, numerous reports of its efficacy have appeared. The acid itself was used in conjunction with ammonium chloride, but of late the ammonium salt of mandelic acid, ammonium mandelate, has proved of equal value. In employing this drug, careful attention must be given to the daily intake of fluids, the daily dosage, and the acidity of the urine. No more than one liter of water should be taken and the daily dose of ammonium mandelate should be limited to twelve grams daily. The urine acidity should be kept below or at pH5. Contraindications to its use are hematuria, impairment of renal function, and gonorrhea.

CURRENT COMMENT

"THIS NATION HAS HAD ITS DICTATORS and they served their country well. They did it by being dictators in the original and genuine sense, as it was understood by the ancient Romans, who invented the thing and the word.

"Whenever the Romans of the republican period found themselves in an exceptionally uncomfortable jam, they suspended the normal processes of government and invested one outstanding ancient Roman with plenary powers. By prescribed formula the Roman Senate instructed him to see to it 'that the republic suffers no detriment.' But when the emergency was over, the dictator handed in his commission and retired to his farm and his oxen, if his name happened to be Cincinnatus, and the due processes of Roman law came back. There is all the difference in the world between the emergency dicta-

tor, set up by a free people for the very purpose of preserving their liberties, and the permanent dictatorships of the new European models. And it does not make things any better because virtually all these new autocracies love to describe themselves as planned and co-ordinated social systems.

"The original dictator, as the Romans invented him, and as we have used him in this country, without the actual name, was strong medicine, but good medicine. He was a strychnine pill in a cardiac attack. What many of us find it hard to understand, is why people should want to make strychnine pills a part of the regular national dietary, why a nation which has shown a genius for combining freedom in normal times with self-imposed discipline in an emergency should be asked to reorganize its life on a permanent emergency basis. Yet there are well-meaning Americans who have got themselves into this frame of mind, with the best intentions in the world.

"They see social and economic injustice and they want it eliminated, right away. They find clutter and waste in our industries and they want to substitute order and efficiency, at once. In place of an imperfectly balanced and inadequately lubricated nation they want a country that purrs, and hums, and sings, and glistens, like a beautifully tended dynamo in a powerhouse. To get that kind of a country without loss of time, they think we ought to declare a permanent emergency. They think we ought to bring Cincinnatus from his farm and give him a life job.

"The most perfectly planned society that one can think of is a hospital, with the thermometers, and the milligrams, and the charts, and the half slice of dry toast, and the good-looking, soft-voiced nurses moving noiselessly on their appointed rounds. But, despite all the planning and co-ordination and synchronization, who wants to live regularly in a hospital? It offers peace and planning, but it is the peace and planning of a receivership."—From an editorial in *The Saturday Evening Post* of August 28.

"OUR STATISTICIANS DISCUSS the saturation point for population in the same fatalistic vein that bankers used in prophesying a saturation point for automobiles thirty years ago. At any given moment the bankers could prove they were right, but before the period of prophecy drew to a close the situation changed. Someone invented a self-starter, someone built more and better roads.

"Of course, you can't buy babies ready-

³ Rosenheim, M. L. *Lancet*, 1 1032, 1935

made. Nevertheless, the pains and dangers of childbirth seem to be decreasing. Obstetrical science keeps reducing the hazards and saving more of the prospective customers for existence. Also, it is just possible that social evolution may produce a better world with a future so rosy that adults will want many children to share in its blessings. A falling birthrate is to some extent a critique on bad management in high places, passive rebellion against regimes grown too expensive and deadly to inspire complete faith in the national future.

"If political management improves sufficiently to reassure parents that their children will be something more than debt-

bearers and arms-toters, the baby business may again boom in America."—From the column entitled "Progress" in *The Digest* of August 21

"HOW DID THE LEGISLATORS from your district vote on medical bills which were introduced during the past year? If they voted for compulsory sickness insurance you should become acquainted with them. Learn their views before the next election. Let them know that how they vote speaks more eloquently than what they say"—Sound advice from "An Observer" in the August Supplement to the *Saint Louis County Medical Society Bulletin*

1938 Annual Meeting

Scientific Exhibits

New York City, May 9-12

Application blanks for Scientific Exhibits may be secured by medical colleges and hospitals in New York State by writing to the Chairman of the Committee on Scientific Exhibits, Dr William A. Krieger, 103 Hooker Ave., Poughkeepsie.

The plan this year is to have all these

exhibits furnished by hospitals and medical schools instead of by individuals

Motion pictures will not be shown in the same room as the scientific exhibits at the Waldorf-Astoria Hotel, but in a special room of large size allocated for that purpose

DISTRICT BRANCH MEETINGS

The Annual Meetings in 1937 will be held this fall on the following schedule

Sept 21	Sixth District Branch	at Owego
" 22	Seventh " "	" Geneva
" 23	Fifth " "	" Lowville
" 30	Third " "	" Kingston
Oct. 1-2	Fourth " "	" Glens Falls
" 5	First " "	" New York City
" 7	Eighth " "	" Olean
Nov 17	Second " "	" Garden City

HERE COMES THE DRUNKOMETER

If your breath turns a purple fluid blue, then you are drunk, according to a court ruling in Indianapolis as reported by the Associated Press. If your breath will take the paint off the front door, or bend a crowbar, or make a mouse want to fight the cat, that would no doubt be evidence too, but so far the color test is the one accepted by the judge. The dispatch, dated August 11, runs

Readings taken by Dr Rollo N. Harger, state toxicologist, on his "drunkometer"

were accepted as evidence in Municipal Court Wednesday, and Mr and Mrs Ray Gordon, of Denver, were fined \$5 each for intoxication.

The Gordons were subjected to the test following an automobile accident last week.

Dr Harger, inventor of the apparatus, testified the breath of each was blown into toy balloons. The air from the balloons was then expelled into a purple fluid, which turned blue, proving, Dr Harger said, that the couple were intoxicated.

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private". All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

531 Bronx River Road
Yonkers

To the Editor

The law states that all welfare cases must get "adequate medical care." For hundreds of years the medical profession has been the judge of what constituted adequate medical care until recently when bureau officials made their own regulations. The physicians had organized into medical societies and promulgated and generally enforced a code of ethics for the practice of medicine, which for decency and fairness to the patient has found scarcely a counterpart in other professions. Accordingly, the medical societies should still retain the right to decide whether welfare patients are getting adequate medical care, and it is their duty to do so. It works a hardship for a welfare patient to be "yanked out" from the hands of his own doctor into those of an indifferent underpaid salaried physician, or of an indifferent clinic physician, not that there are not many conscientious clinic physicians, but very often they have not the time to work up a case completely. According to ethical practice a patient should be able to see his own physician, who is paid a just fee, as is now being done in compensation cases so successfully, and this should be done in all welfare cases.

In this manner we can still maintain our tradition of good medical care for all. Indifferent medical care of the welfare cases by any physician will only besmirch the good name of our profession. This statement holds true even when the physicians are under governmental control.

Neglect to take action now will result in regimentation schemes by crackpots. Look at the ridiculous bill recently introduced by Senator Lewis providing for the regimentation and enslavement of all the physicians of the country by the federal government, forcing him to treat any welfare case at the latter's demand at a fee set by the government on pain of a huge fine and imprison-

ment. What a paradise for malingerers! If you don't make the call, you will find yourself in the jug, regardless of alibies. Shades of Hippocrates, what is this country coming to anyway! You don't see the lawyers, of whom Senator Lewis is a member, yelling for regimentation. So before it is too late, let the medical societies take action, otherwise we will all be regimented, and pawns of government clerks.

Yours very truly

E H ALLAR, M D

August 14, 1937

2270 Mott Avenue
Far Rockaway

To the Editor

In these modern times, when the race for the almighty dollar seems to have blunted the finer ethics of our professional life, it was indeed an unalloyed and unusual pleasure, to read in your last issue (August 15, page 1448) the sincere eulogy which was paid to the memory of Dr. John H. Wyckoff, former dean of New York University Medical College, by Dr. I. W. Held, who with clear, lucid insight analyzed the motives which actuated and influenced Dr. Wyckoff's life and his work as a teacher, which attracted and held the deep respect of all the medical men who had the privilege of coming into contact with him.

We older men, who have almost finished the struggle for daily sustenance, and who stand in amazement at the ultra-modern business methods which now seem to spell professional success, will certainly be heartened by this eloquent tribute to a past master of medicine who has gone into the Great Beyond and the JOURNAL is to be congratulated upon finding space in its columns for Dr. Held's inspiring letter.

JOSEPH BAUM M D

August 26, 1937

What a flight from reality to suppose that the profession can make any effective inroads on the recalcitrance of human nature when there are 16,000 chiropractors, 7,600 osteopaths, 2,500 naturopaths and 10,000

Christian Science healers taking \$125,000.-000 a year from the American people for unscientific or one track systems of healing

—Charles Gordon Heyd, M D

Society Activities

Proceedings of the Council

The Council of the Medical Society of the State of New York, as prescribed by the Constitution and By-Laws, 1937 revision, began its work immediately at the close of the 1937 meeting of the House of Delegates. It has arranged for the carrying out of the duties outlined in Chapter IV, Sections 9 and 10, of the By-Laws (July 15, 1937 issue of the JOURNAL) which read as follows:

Sec. 9 The duties of the Council shall also include the study and supervision of the following activities:

(a) All Scientific Work presented at each annual meeting

(b) Scientific Exhibits

(c) Medical Education

(d) Journal Management and Publication.

(e) Medical and related research

(f) Arrangements for annual meeting

(g) Preventive Medicine

(h) Public Health

(i) Legislation

(j) Economics

(k) Workmen's Compensation

(l) Health and Welfare Department of State.

(m) Medical Publicity

(n) Hospitals, Clinics and Welfare Agencies

(o) Cooperative relationships with Federal and State Governments, Foundations and other lay groups

(p) Malpractice Defense and Insurance

(q) Any activities not otherwise provided for

Sec. 10 Committees of the Council may include other members of the Society and shall be appointed by the President subject to the approval of the Council. Each committee shall include at least one member of the Council who shall be chairman, except that he need not be chairman for the committee or committees in charge of activities "A", "B" and "F", Chapter IV, Section 11 of the By-Laws. The Membership of committees shall not exceed three including the chairman, except the commit-

tee or committees in charge of activities "A", "B", "D" and "F", Chapter IV, Section 9 of the By-Laws

The Council as constituted for 1937-1938 under the Constitution, Article IV, is as follows:

Charles H. Goodrich, 280 Park Place, Brooklyn, President

William A. Groat, 713 E. Genesee St., Syracuse, President Elect

Floyd S. Winslow, 410 S. Plymouth Ave., Rochester, Past President

Peter Irving, 2 E. 103 Street, New York, Secretary

George W. Kosmah, 23 E. 93 Street, New York, Treasurer

Samuel J. Kopetzky, 71 E. 80 Street, New York, Speaker

Thomas P. Farmer, 206 Sedgwick Drive, Syracuse, Councilor 1937-40

James H. Borrell, 413 Brisbane Bldg., Buffalo, Councilor 1937-40

Augustus J. Hambrook, 40 State St., Troy, Councilor 1937-40

Edward T. Wentworth, 501 Professional Bldg., Rochester, Councilor 1937-39

Oliver W. H. Mitchell, Syracuse College of Medicine, Syracuse, Councilor 1937-39

Thomas H. Cunningham, Insurance Bldg., Glens Falls, Councilor, 1937-39

John J. Masterson, 401-76 St., Brooklyn, Councilor 1937-38

Guy S. Carpenter, Waverly, Councilor, 1937-38

Frederic E. Elliott, 122-76 St. Brooklyn, Councilor 1937-38

The Council re-employed Dr. Joseph S. Lawrence as Executive Officer, Mr. Lorenz J. Brosnan as Counsel, and Mr. Thomas H. Clearwater as Attorney for the ensuing year. The Secretary was employed as General Manager, with duties as outlined in the By-Laws, Chapter VIII.

Council Committees, and three Special Committees directed by the House of Delegates, were appointed by the President with the approval of the Council, as follows:

Scientific Exhibits

William A. Krieger, Chairman, 103 Hooker Ave.
Poughkeepsie
New York

John Henderson, 850 Park Ave.

Scientific Work

Albert F. R. Andresen, Chairman, 88 Sixth Ave.,
Brooklyn

Howard C. Taylor, Jr., 842 Park Ave., New York

Arrangements

Charles A. Anderson, Chairman, 32 Eighth Ave.,
Brooklyn

John L. Bauer, 984 Bushwick Pkwy., Brooklyn

Charles Gordon Heid, 116 E. 53 St., New York

Frederic E. Sondern, 24 W 55 St
 Ralph I. Lloyd, 14 Eighth Ave
 Augustus Harris, 306 Park Place
 Irving Gray, 41 Eastern Pkwy
 Herbert C. Fett, 54 Eighth Ave
 W. G. Frey, Jr., 140 Continental Ave.,
 Forest Hills Garden
 Arthur S. Driscoll, 100 Central Ave. St. George, S I
 Carl A. Hettesheimer
 Charles C. Murphy
 Emil Koffler, 306 E. Tremont Ave
 Clarence G. Bandler, 77 Park Ave.
 Leo F. Simpson, Advisory, 221 Alexander St.,
 Rochester

The General Manager was directed to act to coordinate the work of the Committees on Scientific Exhibits, Scientific Work, and Arrangements for the Annual Meeting

Medical and Related Research

Thomas H. Cunningham, Chairman, Insurance Bldg.,
 Glens Falls
 Frederic E. Sondern, 24 W 55 St
 Frederic C. Conway, 292 Madison Ave.
 New York
 Albany

Journal Management

George W. Kosmak, Chairman, 23 E 93 St,
 New York
 Peter Irving, Secretary, 2 E 103 St
 New York
 Thomas M. Brennan, 39 Eighth Ave
 Brooklyn
 Samuel J. Kopetzky, 71 E 80 St
 New York
 Nathan P. Sears, 505 Medical Arts Bldg
 Syracuse
 Warren Wooden, 39 S Goodman St
 Rochester

Medical Education

Thomas P. Farmer, Chairman, 206 Sedgwick Dr.,
 Syracuse
 O. W. H. Mitchell, Syracuse College of Medicine,
 Syracuse
 George Baehr, 110 E. 80 St.
 New York

Nursing Education

Peter Irving, Chairman, 2 E. 103 St
 New York
 Clayton W. Greene, 135 Linwood Ave.
 Buffalo

Preventive Medicine

William A. Groat, Chairman, 713 E. Genesee St.,
 Syracuse
 Cassius H. Watson, 195 Broadway
 New York
 C. Ward Crampton, 515 Park Ave
 New York

Matters Pertaining to Public Health

O. W. H. Mitchell, Chairman, Syracuse College of
 Medicine, Syracuse
 Thomas P. Farmer, 206 Sedgwick Dr
 Syracuse
 Thomas A. McGoldrick, 294 Clinton Ave.
 Brooklyn

Advisory Committees

Pneumonia Control
 Russell LaF. Cecil
 Clayton W. Greene
 Peter Irving
 New York
 Buffalo
 New York

Child Hygiene
 Philip Van Ingen
 Edward J. Wynkoop
 Marvin Israel
 New York
 Syracuse
 Buffalo

Defective Eye sight
 Arthur J. Bedell
 Joseph C. O'Gorman
 Conrad Berens
 Albany
 Buffalo
 New York

Deaf and Hard of Hearing

Augustus J. Hambrook, 40 State St
 Troy

Legislation

James H. Borrell, Chairman, 413 Brisbane Bldg.,
 Buffalo
 B. Wallace Hamilton, 52 E. 66 St.
 New York
 John L. Baner, 984 Bushwick Pkwy
 Brooklyn

Economics

Frederic E. Elliott, Chairman, 122-76 St., Brooklyn
 Walter W. Mott
 White Plains
 George C. Vogt, 140 Chapin St
 Binghamton

Workmen's Compensation Procedure

Frederic E. Elliott, Chairman, 122-76 St. Brooklyn
 David J. Kaliski, Director, 70 E. 83 St. New York
 Joseph C. O'Gorman, 1324 Jefferson Ave. Buffalo

Health and Welfare Departments of the State

Augustus J. Hambrook, Chairman, 40 State St. Troy
 Louis H. Bauer
 Hempstead
 Frederic E. Elliott, 122-76 St.
 Brooklyn

Medical Publicity

Guy S. Carpenter, Chairman
 Waverly
 Terry M. Townsend, Exec. Vice-Chairman,
 101 E. 74 St., New York
 Thurston S. Welton, 842 Union St.
 Brooklyn

Hospitals, Clinics and Welfare Agencies

Floyd S. Winslow, Chairman, 410 S. Plymouth Ave.,
 Rochester
 Robert F. Barber, 1257 Dean St.
 Brooklyn
 Adolph G. De Sanctus, 5 E. 84 St
 New York

Malpractice Defense and Insurance

John J. Masterson, Chairman, 401-76 St. Brooklyn
 Milton J. Goodfriend, 1882 Grand Concourse
 Bronx
 James M. Flynn, 277 Alexander St.
 Rochester
 Chas. Gordon Heyd, 116 E. 53 St.
 New York
 (Advisory)

Maternal Welfare (Special Committee)

Charles A. Gordon, Chairman, 256 Jefferson Ave.,
 Brooklyn
 James K. Quigley, 26 So. Goodman St.
 Rochester
 Ferdinand J. Schoeneck, 103 Medical Arts Bldg.,
 Syracuse

To Confer with State Hospital Association (Special Committee)

Floyd S. Winslow, Chairman, 410 S. Plymouth Ave.,
 Rochester
 David J. Kaliski, 70 E. 83 St
 New York
 Frederic E. Elliott, 122-76 St.
 Brooklyn
 Thomas P. Farmer, 206 Sedgwick Drive
 Syracuse
 Augustus J. Hambrook, 40 State St
 Troy
 Leo F. Simpson, 221 Alexander St
 Rochester
 Homer L. Nelms, 447 State St
 Albany
 William A. Groat, 713 E. Genesee St.
 Syracuse
 Peter Irving, (ex officio) 2 E. 103 St.
 New York

Advisory Committee to Woman's Auxiliary

John L. Bauer, Chairman, 984 Bushwick Pkwy
 Brooklyn
 William H. Ross
 Brentwood
 Herman W. Galster
 Scotia
 William A. Groat, 713 E. Genesee St.
 Syracuse
 Daniel J. Swan, 141-54 Northern Blvd
 Flushing

On Matters Pertaining to Medical Care (Special Committee)

Walter W. Mott
 White Plains
 Frederick M. Miller Sr., 293 Genesee St
 Utica
 David B. Jewett, 219 Alexander St.
 Rochester
 James A. Miller, 133 E. 64 St
 New York

Charles D Post, 608 E. Genesee St. Syracuse
 Louis A Van Kleeck Manhasset
 John E. Wattenberg, Savings Bank Bldg Cortland
 Homer L. Nelms, 447 State St Albany

Advisory Committee

Chas. Gordon Heyd New York
 Frederic E. Sondern New York
 Arthur W Booth Elmira
 Thomas A. McGoldrick Brooklyn
 Bertran W Gifford Sangerties

Constitution and By-laws

Samuel J Kopetzky, Chairman, 71 E. 80 St. New York
 Peter Irving, 2 E 103 St. New York
 Lorenz J Brosnan, Esq 15 Park Place New York

World's Fair

Thomas H Cunningham, Chairman, Insurance Bldg, Glens Falls
 James R. Reuling Jr., 217-07 40th Ave. Bayside
 Thomas A McGoldrick, 294 Clinton Ave. Brooklyn

Section and Session Officers 1937-38

Officers who had been elected by the Sections at their annual meetings were recorded with the Council and are here included for reference. The officers for the two new Sections on Orthopedic Surgery and on Pathology and Clinical Pathology, and the officers of the Sessions were appointed by the Council, as is customary

Section on Orthopedic Surgery

Chairman—Samuel Kleinberg, 1 W 85 St New York
 Secretary—Arthur Krida, 791 Park Ave., New York.

Section on Pathology and Clinical Pathology

Chairman—James Ewing Memorial Hospital New York.
 Vice-Chairman—N Chandler Foot 525 E 68 St New York.
 Secretary—M. J Fein, 50 Greene Ave., Brooklyn

Section on Medicine

Chairman—Ralph H Boots, 772 Park Ave., New York.
 Secretary—Byron D Bowen 100 High St, Buffalo

Section on Surgery

Chairman—Benjamin W Seaman, 131 Fulton Ave Hempstead.
 Secretary—Clarence V Costello, 258 Alexander St., Rochester

Section on Obstetrics and Gynecology

Chairman—Goode R. Cheatham, 618 High Ave. Endicott.
 Secretary—William T Kennedy, 79 E. 91 St., New York

Section on Pediatrics

Chairman—John Dorsey Craig 108 E. 68 St., New York.
 Vice-Chairman—Paul W Beaven, 26 So Goodman St., Rochester
 Secretary—Norman L. Hawkins Woolworth Bldg Watertown.

Section on Ophthalmology and Oto Laryngology
 Chairman—Marvin F Jones 121 E. 60 St., New York
 Secretary—Algernon B Reese, 73 E. 71 St., New York.

Section on Neurology and Psychiatry

Chairman—Charles A. McKendree, 140 E 54 St, New York.
 Secretary—Paul H. Garvey Strong Memorial Hosp, Rochester

Section on Dermatology and Syphilology

Chairman—Leo Spiegel 241 W 100 St, New York
 Secretary—Mark Heiman, 713 E. Genesee St Syracuse

Section on Public Health, Hygiene and Sanitation

Chairman—Burke Diefendorf, 51 Grant Ave., Glens Falls
 Vice-Chairman—Chalmer J Longstreet, 95 Oak St, Binghamton
 Secretary—Frank E. Conghlin, State Dept of Health Albany

Section on Urology

Chairman—Albert M Crance, 407 So Main St., Geneva
 Vice-Chairman—Francis N Kimball, 901 Lexington Ave New York.
 Secretary—John E. Heslin 248 State St., Albany

Section on Radiology

Chairman—Clifford R. Orr, 1093 Ellicott St. Buffalo
 Vice-Chairman—William P Howard, 46 Willett St., Albany
 Secretary—Henry K. Taylor 667 Madison Ave., New York.

Section on Industrial Medicine and Surgery

Chairman—William A Sawyer, 343 State St Rochester
 Secretary—Dan Mellen 305 No Washington St., Rome

Session on Physical Therapy

Chairman—Madge C L. McGuinness, 1211 Madison Ave. New York
 Secretary—Harold J Harris, Westport.

Session on Regional and General Anesthesia

Chairman—Robert B Hammond White Plains
 Secretary—S LeRoy Sahler, 194 Culver Road, Rochester

Significant action by the Council is here presented for the information of the membership

Medical Care of Those on Relief

It was decided that contact be made with the Health and Welfare Departments in the effort to bring the fees paid, "reimbursable fees," into line with the fee schedule for Workmen's Compensation

Annual Meeting

A fourth day was considered desirable for the Annual Meeting and it was directed

that all activities, including scientific programs, continue into this additional day

Workmen's Compensation

The Industrial Commissioner has arranged that a hearing be held on his proposition for certain percentage reductions in promulgating for the State generally the fee schedule now in operation in the Metropolitan area. Dr Kaliski reported that he had requested postponement of this hearing until September and asked that a large representation from the State Society be prepared to attend in order to oppose any reductions. It was Dr Kaliski's information that delegations from the other groups concerned—insurance carriers and employers' associations—would number about fifty. The Council undertook to provide for appropriate representation.

4-H Club Examinations

At the suggestion of Dr Farmer, the Chairman of the former Standing Committee on Public Health and Medical Education, the Council went on record as in favor of the efforts of the 4-H Clubs to increase the health consciousness of the citizens of the State by means of competitions in the Counties and in the State generally between children, looking to the choice of the healthiest child in each County and the healthiest child in the State. To achieve this end, the Council requested the County Societies to assist by appointing from their membership physicians who would make examinations of competing children.

District Branch Meetings

These have been scheduled as follows

Sept	21	— Sixth District Branch at	Owego
	22	— Seventh " " "	Geneva
"	23	— Fifth " " "	Lowville
"	30	— Third " " "	Kingston
			Glens Falls
Oct	1-2	— Fourth " " "	New York City
"	5	— First " " "	Olean
"	7	— Eighth " " "	Garden City
Nov	17	— Second " " "	

Financial

A budget was drawn up and recommended to the Board of Trustees in the usual fashion. It was also recommended that the fiscal year and the dues year be made to coincide in such a way as to permit the Treasurer to complete his report in time

for the Annual Meeting. Instead of July 1 of one year to June 30 of the next year, the new arrangement would make the fiscal year begin on April 1 to extend until March 31 of the following year.

Noise Abatement

The Council considered a resolution passed by the Section on Neurology and Psychiatry at its meeting on May 26, 1937. This Section resolved that

Whereas, the Medical Society of the County of Monroe and the Academy of Medicine of Rochester has been cooperating with the Mayor's Committee on Noise Abatement, and

Whereas, it is recognized by the medical profession that unnecessary noises are a factor in the production and the exaggeration of disease states,

Be it Resolved, by the members of the Section on Neurology and Psychiatry that they go on record as approving the efforts of Noise Abatement Commissions throughout the State of New York, and cooperating with them in their efforts directed toward noise abatement.

It was felt by the Council that this matter is of such importance as to deserve further study and the Council Committee on Preventive Medicine was directed to bring in recommendations.

Reports by Delegates to Their County Societies

It was brought to the attention of the Council that there exists no common practice of reporting back to their parent County Societies by the Delegates who attended the Annual Meeting. In Tioga County, the Council was informed, such reports have been made for some time and are considered very useful by that County Society. The Council went on record as commending such procedure to the County Societies.

Future Meetings of the Council

Regular monthly meetings to be held in the Society's offices, 2 E 103 Street, at 10 00 A.M. will begin in September, continuing through on the second Thursday of each month until the next Annual Meeting. The September meeting will occur on the third Thursday, the sixteenth.

CHARLES H. GOODRICH, *President*
PETER IRVING, *Secretary*

DISTRICT BRANCH MEETINGS

Third District Branch

The program for the annual meeting of the Third District Branch to be held in the Governor Clinton Hotel, Kingston, September 30, is as follows

Daylight Saving Time

10 00-10 15—Address of Welcome—Fred H Viss, M.D., President, Ulster County Medical Society

10 15-11 15—"Malignancy as Seen by the General Practitioner"—Louis C. Kress, M.D., State Institute for the Study of Malignant Disease, Buffalo, and Arthur M. Dickinson, M.D. A discussion of the methods of diagnosing and treating cancer of the various parts of the body that may be employed by the general practitioner. The discussion will deal especially with the etiology and early symptoms of cancer of the breast, uterus, stomach, and rectum. The symptoms, pathological picture and treatment of Hodgkin's disease will be included.

11 15-12 00—"The Pathology of Vascular Disease"—Milton C. Winternitz, M.D., Yale University School of Medicine, New Haven, Conn. Dissection, injection and clearing as preliminary to sectioning and staining indicate that vascularity of the walls of blood vessels plays an important role in the genesis of arteriosclerosis. Hemorrhages of varying magnitude are common findings in the walls of arteries at many stages in the arteriosclerotic

process. The fate of this extravasated blood and the role it plays in subsequent changes, leads to a broad correlation of diseases of the blood vessels with other growth and reaction processes.

12 00—"Presenting Symptoms and Diagnosis of Renal Tumor"—Lantern slide demonstration—George F. Cahill, M.D.

1 00—Luncheon and introduction of guests

Afternoon Session

2 00-2 15—Business meeting

2 15-2 40—"Preventive Medicine"—Charles H. Goodrich, M.D., President of the Medical Society of the State of New York.

2 40-3 15—"How to Analyze a Case of Bright's Disease"—Benjamin I. Ashe, M.D. Pathology, as evidenced by the living patient, edema, blood pressure changes, renal function, uremia, anemia.

3 15-4 00—"Dialogue on the Use of Protamine Zinc Insulin and Other Diabetic Problems"—Howard F. Root, M.D., Boston, Mass., and Stephen H. Curtis, M.D. Comparison of the results obtained in using regular insulin and protamine zinc insulin, selection of either as best fitted to use in individual cases. Relationship of the individual's carbohydrate and metabolic deficiencies and the role these play in the choice and dosage of insulin. Dietetic problems and the relationship of insulin administration.

Fourth District Branch

The program for the annual meeting of the Fourth District Branch to be held at the Hotel Queensbury, Glens Falls, October 1 and 2, is as follows

OCTOBER 1, 2 30 P.M.

"The New Constitution and By-Laws of the Medical Society of the State of New York. Why the Changes and What We Should Gain Thereby"—Thomas H. Cunningham, M.D.

"The Future of the Albany Medical College"—Robert S. Cunningham, M.D.

"Treatment of Fractures of the Hip"—William D. Johnson, M.D.

7 00 P.M.

Dinner at Queensbury Hotel.
Address by Charles H. Goodrich, M.D., President of the Medical Society of the State of New York.

"The Art of Prestidigitation"—Gordon C. Peck, M.D.

OCTOBER 2, 9 30 A.M.

"The Use of Sulphanilamide in the Treat-

ment of Infections of Childhood"—Benjamin W. Carey, Jr., M.D. Boston, Mass. The results of the use of para-aminobenzenesulfonamide and its derivatives in the treatment of infections in infants and children caused by the B hemolytic streptococcus, the meningococcus, the gonococcus and the colon bacillus, will be presented. Included will be a discussion of the dosage, methods of administration and toxic reactions encountered in the use of the drugs.

"The Prevention of Heart Disease"—Paul Dudley White, M.D. Boston, Mass. The study and treatment of heart disease have now progressed to the point of intensive thought and work on preventive measures. It is already becoming evident that certain kinds of heart disease can be prevented and we are steadily accumulating clues that may help us eventually in the prevention of heart disease in the majority of young and middle-aged individuals.

"A survey of the Latest Thought in the Treatment of Cancer"—Frank E. Adair, M.D.

NOTE. On Friday afternoon there will be a bridge tea at the Glens Falls Country Club for the visiting ladies.

Fifth District Branch

The program for the annual meeting of the Fifth District Branch to be held in the Masonic Temple, Lowville, September 23, is as follows

10 00 A M—Standard Time

"The Problem of Simple Goiter"—John C McClintock, M D, and George E Beilby, M D

The factors leading to the development of simple goiter are reviewed. The symptoms presented by these young patients are recorded, leading to a discussion of the prognosis with a review of a series of cases observed. The most important problem relating to simple goiter is its treatment which should relieve the symptoms and prevent if possible future thyroid disease. Careful and conservative observation is the keynote of success in dealing with this type of goiter. Not a small part of the treatment is the prevention of goiter which is discussed with a review of the methods accepted at the present time.

"Importance of Early Diagnosis in Affections of the Hip"—Lantern slide demonstration—Charles H Bladwin, M D. The number of cripples resulting from pathological processes occurring in and about the hip still remains unnecessarily large. Only by early recognition of the fact that the hip is the seat of disease or malformation and the institution of appropriate treatment can this number be lessened. Early diagnosis is always possible, and, for the most part, not difficult. If good results are to be obtained the family doctor must be depended upon. While a small percentage of cases should be hospitalized over fairly long periods, the average case may be treated at home, provided home conditions are good. The significance of limp pain, limited joint motion should be well understood, as well as the fact that a joint may receive irreparable damage in

a very short period. Prognosis depends on the nature of the affection as well as on early diagnosis.

"Diagnosis, Treatment and End Results of Malignant Neoplasm of the Female Genital Tract"—John A. Kelly, M D

2 00 P M—Standard Time

Business meeting Election of officers

"Preventive Medicine"—Charles H Goodrich, M D, President of the Medical Society of the State of New York.

"The Management of Peripheral Vascular Diseases"—Herman E. Pearse, M D. During the last decade vascular disturbances of the extremities have received unusual attention resulting in a clearer conception of the etiology, diagnosis and treatment of arterial obstructions. Many of these advances have been made by the use of laboratory methods in the clinic, so that the student or practitioner is often bewildered by the multiplicity of tests, methods and apparatus employed. This is undesirable and unnecessary because with the simplification of these procedures it should be possible to obtain all essential data with ordinary equipment. Hence an effort will be made to evaluate the newer methods of estimating vascular deficiency in terms of every-day use. The subject will be considered using the classification of peripheral vascular disorders into those due to the arterial diseases that cause spasm, occlusion and a combination of both, as well as the effects of trauma, thrombosis, and embolism.

"The Management of Urinary Lithiasis"—Roscoe C. Borst, M D. The writer discusses the recently accepted etiological factors, the dietary regimes, urinary antiseptics, their values and dangers, and the need for intensive, co-operative study of these cases by the bacteriologist, internist, physiological chemist, and the urologist, The Jeans Test.

Sixth District Branch

The program for the annual meeting of the Sixth District Branch to be held in Owego, September 21, is as follows

Westminster House—Presbyterian Church

10 00 A M—Standard Time

"Treatment of Vesicle Neck Obstruction and Prostatism"—Elliott T Bush, M D

"Tumors and Other Diseases of the Spinal Cord Amenable to Surgery"—William P Van Wagenen, M D

"Diagnosis and Practical Measures in the Treatment of Anemia"—John S Lawrence, M D

Luncheon and introduction of guests, Green Lantern Country Club

2 00 P M, Standard Time

Business meeting and election of officers

"Preventive Medicine"—Charles H Goodrich, M D, President of the Medical Society of the State of New York.

"Some Newer Aspects of the Treatment of Peripheral Vascular Diseases"—Irving S Wright, M D

"Diagnosis and Management of Cutaneous Cancer"—Anton W Sohrweide, M D

Provision will be made for the entertainment of the ladies

Seventh District Branch

The Joint Annual Meeting of the Seventh District Branch of the Medical and Dental Societies of the State of New York, will be

held September 22, in the State Armory, Geneva. The program scheduled is as follows

Morning Session (Standard Time)

10 00-10 30—"Observations on Obesity" by David A. Haller, M.D., Rochester. Obesity is largely untreated and is allowed to exist as a physical handicap and predisposing factor to chronic disease states. Glandular dystrophies associated with obesity may be relieved in part by diet, but obesity can rarely be relieved by administration of glandular products and these may be unsafe.

Discussion by Byron D. Bowen, M.D.

10 45-11 15—"Pneumonia Control" by Edward S. Rogers, M.D.

Discussion by Edward G. Whipple, M.D.

11 30-12 00—"Newer Aspects of the Etiology of Cancer" by Burton T. Simpson, M.D. In the last five years great advances have been made in the etiology of cancer. We are now able to produce both carcinoma and sarcoma by specific synthetic chemicals. A very strong carcinogenic agent can now be produced from bile acids. It has been shown that the sex hormones play an important part in carcinoma of the breast. Discussion by L. C. Kress, M.D.

12 15-12 55—Exhibit of specimens from the State Institute for the Study of Malignant Disease. Dr. Morton L. Levin.

1 00—Luncheon and introduction of guests—Hotel Seneca.

Afternoon Session

2 00—Business meeting and election of officers.

2 15—"Medico-Dental Cooperation in Preventive Medicine" by Charles H. Goodrich, M.D., President of the State Medical Society.

"Medico-Dental Cooperation in Clinical Medicine" by Edwin I. Harrington, D.D.S., President of the Dental Society of the State of New York.

"Medico-Dental Cooperation in Education" by Theodor Blum, D.D.S., M.D. Medico-Dental cooperation must be established for one purpose, namely, the improvement of health service. To achieve the above the physician must familiarize himself with the dental problem and the dentist with the medical, and meet each other on an equal basis in bordering fields. Criticizing either profession to the public increases the difficulty of our task.

For the Ladies

Luncheon for the ladies will be served at Belhurst. It will facilitate arrangements if those planning to attend will notify the Chairman, Mrs. Andrew D. Hubbs, 6 Delancey Drive, Geneva, by post-card or letter of their intention.

Boating, golf, and cards will be provided. Ladies are requested to register at the State Armory.

Dr. Burton T. Simpson, Director of the State Institute for the Study of Malignant Disease at Buffalo, has arranged an educational exhibit for the general public which will be open from 2 00 P.M. to 4 00 P.M. at the State Armory, Geneva. This exhibit will be in charge of Dr. Morton L. Levin of the State Institute staff. There will be no charge for admission and the public is urged to attend.

At 5 15 P.M. there will be an informal gathering of the ladies and members of the District Branch and guests at Belhurst, on Lochland Road.

POLLEN FILTERED OUT BY AIR CONDITIONING

Victims of hay fever and other respiratory affects are assured of a "high degree of benefit" from air conditioning today, as a result of a series of pollen tests by Professor F. H. Hodgson, department of allergy botanist at Roosevelt Hospital, New York City.

Professor Hodgson conducted his tests in a room where the air was heavily saturated with dust and pollen. The unit was a summer portable room cooler without special attachments.

Actual results in one of the main tests in a "room to be used by an allergic patient," Professor Hodgson said, showed the pollen count reduced in 10½ hours, from 1050 to 2 per square centimeter.

At regular intervals the amount of pol-

len remaining in the room was carefully counted on an exposed slide. Professor Hodgson reported. Four and a half hours after the experiment was begun, the pollen count had been reduced from 1050 to 70, three hours later, the count had dropped to five, and, ten and a half hours from the start of the experiment, the count was only two.

Summarizing the results of his various pollen tests, Professor Hodgson reported.

"From many experiments, it would seem that the efficiency of the air conditioning device is sufficiently good to assure a high degree of benefit to a patient suffering from exposure to air containing irritants, especially house dust and natural pollens."

A healthy man must feel unhappy when he listens to the medical ballyhoo on the radio and realizes how easily, surely and

pleasantly he could be cured of many interesting ailments, if he only had them—
Ills Med Jour

PNEUMONIA CONTROL PROGRAM

Post-Graduate Educational Institutes in Pneumonia for the General Practitioner

The New York State Medical Society in collaboration with the Bureau of Pneumonia Control of the New York State Department of Health and in cooperation with some of the large medical school hospitals of the State is sponsoring a series of one-day institutes on "The Diagnosis and Treatment of Pneumonia" with special emphasis on serum therapy. These institutes will be held in the five academic centers of the State Albany, Buffalo, New York City, Rochester, and Syracuse, and will accommodate physicians in the counties surrounding these cities. The educational facilities of these institutes will be extended to the general practitioner who is desirous of learning more in detail about the recent advances in the diagnosis and treatment of pneumonia and who is anxious to familiarize himself with the exact technic of serum therapy.

Each institute will accommodate fifty physicians in the counties surrounding the location of the institute. The number of physicians accepted from each county will depend on the medical population of that county. Applications will be accepted in the order in which they are received, with the exception that, an attempt will be made to distribute the quota evenly throughout the individual county whenever possible. It is therefore necessary that those who are interested send in their applications early, before the quota of their county is exhausted.

No fee will be charged to those attending the institutes. The New York State Department of Health will reimburse traveling and maintenance expenses of those attending up to a maximum limit of \$20 per physician.

The institutes will consist of the following

- 1 Talks by outstanding authorities on pneumonia, i.e. Doctors Bullowa, Cecil or Cole, on various aspects of the diagnosis and treatment of the disease with special reference to serum therapy

- 2 Small group demonstrations on blood donors of the actual technic used in the administration of serum, the taking of blood cultures and the performance of sensitivity tests

- 3 Lecture and demonstration on the use of oxygen

- 4 Informal discussions with the Speakers and other authoritative physicians regarding individual problems

- 5 Ward rounds by the Speakers on clinical material if cases are available at the time and place of the Institute

- 6 Sound moving-pictures illustrative of the technical aspects of serum treatment and nursing care in the home will also be shown.

The final schedule of the institutes and the place of meeting of each will be published in the next issue of the JOURNAL. A tentative schedule of the institutes with the counties served by each follows

Syracuse Institute, October 12

St Lawrence	Lewis	Onondaga	Broome
Herkimer	Jefferson	Cortland	Cayuga
Oneida	Oswego	Chenango	Madison

Rochester Institute, October 19

Wayne	Seneca	Schuyler	Tompkins
Tioga	Steuben	Ontario	Monroe
Livingston	Alleghany	Chemung	Yates

Buffalo Institute, October 25

Orleans	Genesee	Cattaraugus	Niagara
Chautauqua	Erie	Wyoming	

Albany Institute, November 9

Columbia	Albany	Warren
Schoharie	Saratoga	Hamilton
Schenectady	Washington	Franklin
Montgomery	Clinton	Otsego
Essex	Delaware	Fulton
Greene	Rensselaer	

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Suffolk	Nassau	Westchester
Rockland	Orange	Dutchess
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Applications are to be sent to Dr. Thomas P. Farmer, Chairman of the Council Committee on Medical Education of the New York State Medical Society, 608 E. Genesee St., Syracuse.

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Economics

Working for Nothing and Boarding One's Self

FLOYD BURROWS, M D, *Syracuse*

There is a strange psychology rampant in the public mind about medical fees and their payment.

In the first place most individuals erroneously regard them as usually exorbitant

In the second place, as a class they look upon doctors as wealthy mortals. Without any more analytical struggle than a bumblebee exerts when he lands on a clover blossom to gobble a mouthful of nectar they unconsciously assume that ninety-nine pennies out of every dollar a physician collects are rushed into a savings bank.

In the third place the average person who owes a bill ranging from one dollar to a hundred often negligently coasts along dodging its payment on the theory it is only a small amount, someone else is paying, so he should worry! If he himself had scores of such claims hanging fire and his expenses had to be met in cash each month like an M D's have to be, indeed he would worry—and how!—especially if in addition his neglected wife was pursuing him vigorously for warm silk hosiery or a couple of comfortable satin night gowns

Another amazing psychological quirk is the attitude so many hold that doctors should do a huge amount of work for nothing. Relatives of a doctor's family are deliberate spongers in this respect. Doctor's employees are another group who expect service without paying for it. Trained nurses he knows and acquaintances who work in hospitals are others who are transgressors. Practically all the clergy are distinguished offenders. Many patients who have destitute hangers-on or are interested remotely in destitute people expect their doctor if called upon to render service free of charge in such cases and grin like a Cheshire cat at the Christian opportunity.

Why should an employee of a doctor expect free medical service when an employee of a meat market has to pay for his steaks?

Why should a cousin, a sister-in-law, or an uncle expect a doctor-relative to take

care of their broken leg or dislocated shoulder—especially if they are financially more competent than he is—when another relation closer connected charges them well for repairing a clutch or replacing a crankshaft on their automobile?

Why should a clergyman who draws a fat salary for welding and hammering sermons on his pulpit-anvil for a flock of alert sinners expect an M D to run around in the night for nothing if his baby has the croup, when a prosperous merchant who is a sleepy member of his aristocratic congregation gets paid for each pair of the kid's shoes?

Why should a patient—who prides himself he is a good one just because he promptly pays his bills—run to the phone, summon his doctor for service to a pauper in the neighborhood and expect him as a favor to shoulder the situation free gratis? Why doesn't he call up a banker with whom he has a few hundred on deposit or a broker from whom he has purchased several shares of questionable stock and as boldly ask for a gratuitous five dollars to pay a medical fee? Or why doesn't he pay it himself?

Doctors are beginning to require a pertinent answer to these questions, even though lay persons regard such queries as highly impertinent. I think I know the answer—or a partial answer. An example or two will serve to illustrate it.

An anxious husband brings his wife to the physician because of a small bunch in her breast. The physician painstakingly examines the organ, makes a responsible diagnosis of cancer, and seriously advises an immediate operation for removal of the gland. The examining, diagnosing, and advising consume twenty minutes. The rapidity of the procedure is made possible by the expert knowledge which the doctor has painfully, laboriously acquired during an exacting period of years. This fact however is obscured behind the screen of immediate visibility, so when a fee of twenty-five dollars is asked the twain think they have been held up by a Dillinger, M D

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lic cries petulantly for such service. If refused, the public goes into a tantrum with a display of as little judgment, as the child.

Charity is a wonderful blessing to extend to those who are actually in need of it. I am not decrying a discriminating use of it, or advocating the transformation of one's cardiac muscle into a heart of flint. But personally I want to know my contribution is not wasted or bestowed upon unworthy people who can afford to pay for my services but who try to mulct me as an easy mark.

Recently a patient visited my office with her son who had contracted scabies. During the call I casually inquired, "When are you going to have little Abie's tonsils out?" The mother smiled and with visible embarrassment replied, "I have had them out already. I took him to the free dispensary and they did it for nothing."

Her husband is a railroad engineer earning a hundred-and-eighty dollars a month!

When I remonstrated because she deliberately had played a reprehensible trick on my profession she nonchalantly shrugged her shoulders remarking, "One of my neighbors took her boy there and told me about it. If I can get something for nothing, what's the harm?"

The harm is that thousands—yes, tens of thousands—of analogous examples and worse are wilfully, maliciously, perpetrated on lackadaisical doctors in the United States every year and nothing radical is devised to eliminate the evil. It is indeed a poor business system which permits it to exist.

Not so far distant, time was, when a doctor could visit the sick on foot, or travel to them by inexpensive horse locomotion. But with the advent of the automobile the days of the "gay nineties" and before vanished like a pleasant, transitory dream. Expenses then were practically nil compared with today. The overhead was a mere item and a physician if so disposed could utilize spare time in an eleemosynary way without serious drain on his pocketbook. Everything jogged at a slow and easy but safe gait. The currents of life ran less turbulently in that halcyon era.

But now autos have speeded the pace from less than ten miles an hour to sixty plus. Expenses have run swiftly ahead in corresponding proportion. The cost of practicing medicine in 1937 makes it well-nigh prohibitive to care for sick people without

pay except in a very limited way. One might as well maintain a clothier generously should hand a suit to every one in tatters who begs necessary raiment, or a shoe merchant gratuitously furnish foot gear to those who unfortunately are run down at the heel, as to demand medical attention from physicians free of charge.

Doctoring is the only business, except racketeering, where an utter stranger feels he can skip glibly in, grab something and not say, "I-yes-or-no" about paying for it. Even the churches pass a collection plate. The "butcher, the baker and the candlestick maker" have some well thought out ground rules as to how their games shall be played. Why also should not medical men have some business sense in marketing their brains, their hard won experience and often a precious part of their physical self?

If a man unknown to the proprietor of a meat market excitedly dashed in and exclaimed, "My God, mister, my family are starving. Give me ten pounds of your best roast beef and a couple of thick porter-houses, but I can't pay you!" the butcher, either would tell him to go where it is so reputed hot meat cooks in a jiffy, or else direct him to some welfare organization where his needs could be attested to, provided for, and the expense distributed equitably.

But how about a doctor? If it's ten below and the world as bleak and wind swept as a Greenland ice field, he is expected to jump blithely out of bed every time the phone rings or some dead beat sneaks up and pushes his night bell, all a-quiver with eagerness to dash in a humanitarian fashion to some destitute bedside. He is expected to enjoy the tune he whistles while waiting for his pay. He also must take care of his own chilblains.

It is estimated that there are a very large number of physicians in the United States. I have forgotten the exact statistics, but as Mark Twain says, "It is no matter, it is near enough."

Why should all these doctors annually year in, year out, give millions and millions worth of expense-exacting service for nothing? Why should they take care of all the indigent free of charge? Why should not the cost be distributed by taxation *pro rata* on the population at large and not all fall on the shoulders of one class? Why should they be good fellows like this and

A gay married blade—or a single one for that matter—steps out for a bat some night when his arch supporters are not as efficient as usual. A week later he nervously dashes into a doctor's office because a strange discharge has appeared in an organ which he doesn't ordinarily expose freely except on such hilarious occasions.

The doctor places a bit of offending pus on a slide, peeks at it with a microscope and informs the wild nighthawk—somewhat to his discomfiture—he has contracted that derogatory badge of he-manhood—that disease which frequently but mistakingly is considered “no worse than a cold in the head”—filthy, despicable gonorrhea. He makes a charge of ten dollars and the high stepper squeals like a rat—which many times he is. A week before he would have blown the same amount for a couple of magnums of champagne with an abandon only equalled by the ruthlessness he exhibited when he negligently left the deserted wife or sweetheart at home.

The trouble is, such individuals and many others without enough thoughtful reflection to agitate a dozen brain cells think a doctor puts into his efforts only his time. Furthermore they imagine doctors love their work like baseball players do their game and are as eager to dash in response to a sick call as a Babe Ruth was to bat another home run. They look upon medical work as if it were a musical inspiration and assume a doctor is as crazy to practice it as an indefatigable saxophone player is to toot such an infernal instrument morning, noon, and night—night especially.

When people go shopping and purchase various commodities they have something visible, something tangible, to represent their expenditures. But when people go medical shopping they do not put packages galore—which contain the proportionate cost of a doctor's education, his investment to establish himself on an earning basis ample to make both ends meet, his rent, secretarial hire, telephones, drugs, and the thousand-and-one other expenses which eat up his income like an elephant eats hay—into a market basket as they do parcels in a master food store, or have deliveries of diagnoses wrapped like merchandise arrive at home the next day.

I used to care for an old codger who was as close as the cutis is to the cuticle. He had never been ill until the last few months

of his life. I motored five rough miles to pay him a visit and charged him three dollars for the call. Every time he paid he howled as though I had drawn a molar.

“You doctors,” he would bitterly exclaim, “are highway robbers. No wonder you get rich. If I could make money as easy as you do I'd think I was working a gold mine.”

No amount of friendly argument could convince him he might be considerably in error. He could not understand how it actually cost me in overhead expense approximately one dollar to earn three dollars. He finally died believing a professional gangster had cared for him in his last illness. No doubt he is explaining to the angels how he was hurried on his celestial voyage by a medical pirate. He probably will celebrate eternally his escape to a heavenly region where it is reputed there are no doctors.

When such crass ignorance is encountered all one can do is stand by his weapons like an artillery gunner and fire his price straight from the shoulder.

Another thing which often makes doctors' bills assume outrageous proportions to the billed is the fact very few people keep an account themselves of the number of visits he makes at their homes or the number of times they, or members of their family, call at his office. When his statement—usually not itemized—finally arrives some gloomy morning they are disturbingly amazed at its size and—subsequent to an exhilarating household powwow—a considerable reduction is demanded forthwith in no uncertain terms.

I think the explanation I have given accounts in a large measure for the reason doctors have to continually adjust bills, and offer discounts to amicably settle many of them—thus being compelled to do a large amount of work which is unpaid for.

Trying to live up to a silly, exalted reputation for charitableness is another prime factor which enters into the complex problem of working for others without remuneration. From time immemorial doctors have been accustomed to donate their services lavishly and freely, often rushing forward in an enthusiastically zealous manner lest they be deemed inhumane, until now in this depression debacle the public has been taught to expect such voluntary benefactions in an exaggerated fashion. Like an infant who never has been curbed in its desires the pub-

Preventive Medicine

Practical Aspects of Public Mental Hygiene

B LIBER, M D, Dr P H, F A P H A, *New York City*

Lecturer on Mental Hygiene, New York Polyclinic Medical School and Hospital

Knowing that all public health work, including public mental hygiene, depends so much on prevailing social and economic conditions, I could easily describe an ideal state in which mental health work would be unhampered and at a high level, but that would be impractical and not in keeping with present circumstances and with the solving of our problems at hand. When I was asked to speak before this meeting I was told that we were concerned with the necessity of incorporating definite practices through existing health agencies for the prevention of mental disease on a large scale.

Interested in mental hygiene, which, even in therapy, consists more of prevention than of real treatment, I have departed somewhat from psychiatry, which is inclined to deal more with the developed psychotic cases. Both from my clinical work here and abroad and from my own private practice I have learned the need of a public and social approach in all mental health matters. We cannot separate the individual, his mind, his adjustment, or lack of adjustment, from his environment, past and present. It is impossible, therefore, and entirely useless to attempt to prevent mental diseases from the public or personal standpoint without taking into consideration the station in life of a given person or a group, the family relationship, the upbringing, the occupation, the intellect and education, the race and nationality, the near and remote past. None of us has fallen from the moon, each one of us is a tiny ring in a long chain, and our reciprocal interdependence is infinite.

That is why I believe that the theoretical, generality or pioneering or infancy, or groping, trend of mental health must give way to a more mature period and that it is about time that the health agencies study and understand mental hygiene from a public viewpoint and take over its problems. They have been ignored too long. So far

and on the whole public health men have failed to see their importance. Indeed these problems are just as momentous as those related to communicable diseases. It would certainly not be an exaggeration to maintain that mental diseases are sometimes even more contagious than the somatic ones.

In this country the mental hygiene movement was founded, at the dawn of this century, by a splendid man, who, after being hospitalized as a psychopath and having suffered much from mistreatment in institutions, managed to be cured and fight his way out of the insane asylum. He was helped in his work by psychiatrists. It was natural, then, that the mental hygiene movement should from its inception take the form of a struggle for the improvement of the hospitals for the insane and of the condition and treatment of the insane. He had had a great forerunner, Pinel, who, 100 years before, had taken, so to say, the part of the misunderstood and persecuted and tortured mental patient and, at the risk of being ridiculed, had given to the world a new idea about insanity.

The modern Frenchman, Dr Toulouse, who started his work at about the same time as Clifford Beers here, and who is still active along the same lines in Paris, has had another conception of mental hygiene, which he properly calls mental prophylaxy, that is, prevention of mental diseases or rather conservation of mental health.

There is a need for a re-definition of mental hygiene. It is not psychiatry proper and should not be regarded as such. It is not therapy, but prevention of mental diseases or, like all hygiene, treatment before or almost before the disease appears or develops. It has nothing to do with hospitals for the insane or with the manner in which the psychopaths are treated there. It is not a fight for the amelioration of such institutions, although this may be a necessary work also.

Mental hygiene is a part of general hygiene and public mental hygiene is a public

Reproduced by permission of the *American Journal of Public Health*, July 1937

Read at a Special Session of the American Public Health Association at the Sixty-Fifth Annual Meeting in New Orleans, La., October 20, 1936

in addition be expected to subscribe generously to every charity, church, hospital, bazaar, community chest, and what not? Why, after they have done all this, should they be obliged also to pay their proportionate taxation in support of every eleemosynary affair in our governmental set-up?

Why I ask you? Well, I'll tell you in plain words—*doctors head the sucker list!*

Personally I am disgusted with this asinine status. The medical profession needs more vocal dynamite and less verbal pussyfooting. It must breed more financial hounds that can follow a strong business scent and fewer highly trained poodles which would not get the smell of a dollar if they ran sniffing through a mint. It is high time to commence doing something constructive to abolish this absurd situation.

As a business individual I insist on paying everyone their price for what they do for me, whether it is tightening a nut on my car, brushing off my clothing, or giving me a road map, showing the straight and narrow pathway to heaven. I do not let some cheap clodhopper do a fifty-cent job, and say "That's all right, Doc, no charge", and then some day, do a ten dollar consultation for him, and have him expect me to make the same reply, I pay for what I get, and charge for what I give, if it is only headache tablets.

When I am employed by the clergy—Jewish, Catholic or Protestant—I render the same bill as to a sinner. When December 25th comes, and I send them a check, with "Merry Christmas" attached, everything is sweet and lovely between us, by the happy new year. This cuts down their night work surprisingly, and does away with two calls, when only one is needed. They never fully know, I might break my arm at holiday time.

I am not such a Shylock. I charge my wife or her mother for professional services. But uncles, cousins and "inlaws" bring a check or a bankroll when they come to my drug emporium to consume my time and carry away my miraculous remedies. I do my share of charitable work willingly and always have, but I am not doing it for those who can pay for it, leaving those who need it—but who cannot pay—to suffer.

Maybe I should flay myself and wear sackcloth and ashes. But I always have believed conscientiously a medical servant was

worthy of his hire. When I have moved a constipated person's bowels successfully, or accomplished some other laudable professional stunt, if asked to state a fee for my accomplishment, I never have turned white around the gills, given way to emotional tremors, or dampened my BVD's with the sweat of diffident meekness and blushing humility. Perhaps my system is not altruistic enough, or embued sufficiently with that old, sanctimonious, delusion of acquiring virtue and piety by working for nothing and boarding myself.

I always have liked overstuffed furniture, Simmons' beds, occasional drinks of Scotch "likker", and other sinful luxuries, too much, I fear, to defer my rewards until—like a glorified saint—I volplane with extended wings into paradise. Neither do I revel in having financial worries chase me like little devils through every tour of dreamland. I attempt—often a limited excursion because someone gets the belly ache while I am trying to snore my way peacefully on the trip.

I never have held ambitious desires to become a Croesus. But somehow I always have had the notion tucked away in my cranium that it was a legitimate aspiration to corral enough money from my practice to educate my youngsters, pay my life insurance premiums, buy my wife a new fur coat at least once during her troublous struggle as a doctor's mate, keep a roof over my humble head in such condition I would not have to raise an umbrella at mealtime, and run an auto which would go at least twenty miles an hour and bring me home safely without a tow car, when I journey out into the wide open spaces to hear the inspiring songs of the birds, smell the fragrant perfume of the wild flowers, and acquire a load of renewed courage to bring to my sick.

Perhaps my philosophy is all wet and surcharged with selfishness. Be that as it may, I always have fought vigorously for these privileges and perquisites, and always will so long as good red corpuscles continue to scam through my 130 blood pressure system, and I pursue the exhilarating sport of painting sick clouds with medical sunshine.

That is why, in behalf of my down-trodden brethren, I struggle to blaze a trail for them through the unremunerative realm of physic.

amined, and advised. As much as possible those originating from families in which insanity or feeble-mindedness prevails would be discouraged from mating with those born into similarly handicapped families—both in their own interest and that of the community, it would be explained to them. The existence of such bureaus would also have a salutary and educative effect upon the people at large. At the same time, cases of gonorrhea, syphilis, and tuberculosis would be discovered and treated in marriage candidates. Other bad and evident mismating might be avoided. The effect of such bureaus would amount to a sort of modified eugenics. They would also give birth control instructions in appropriate cases and where that would be absolutely necessary in order to prevent possible mental misfits.

Several years ago I observed the work of the highly efficient and free Heiratsberatungsstellen of Vienna founded by the late Professor Tandler and now all but wrecked. It was a worthwhile work that we should imitate and perfect.

As the various school authorities are rather reluctant to teach the necessary sexual facts to adolescents, public health agencies should undertake this work and open classes for young people where such instruction would be given. Dispelling the common fears and anxieties which are due to ignorance and misinformation, and lead to mental maladjustment and disorders, should be one of the greatest duties and one of the most useful functions of the health authorities. It would not only prevent mental troubles to a large extent, but it would prevent a good deal the spread of venereal diseases which are among the causes of mental disorders. It would also contribute toward a better life with fewer conflicts between married couples—and consequently again toward a diminution of mental disease.

All health departments have, sometimes on paper only sections on industrial hygiene. They should not only become generally more efficient than they have been in the past, but should be interested in the mental aspects of the workers as well. Public health agencies should enlighten the em-

ployers, large and small, that it is to their own advantage that the workers be clear-minded, alert, and calm, in order to avoid accidents, to produce more and do better quality work. That is, of course, connected with the avoidance of overwork, with the distribution of the work so that the number of the unemployed be diminished, with more time for leisure for those employed, with improving working conditions all around. Physical over-fatigue goes hand in hand with mental over-fatigue, and economic insecurity is one of the frequent causes, or predisposing causes, of psychosis.

On the other hand, public health agencies should also keep in contact with the trade unions and gain their cooperation so that some mental hygiene teaching might be possible through them in relation to industrial conditions.

Although alcoholism has its roots in social life, an intensive educational campaign against it should be inaugurated and waged unceasingly, as alcohol is one of the purveyors of mental diseases. This is easier to do now than it was during the prohibition years when it might have been suspected as of political or selfish significance.

Educational instructions and campaigns should not be of the "Don't Spit on the Floor" type or in the form of an order to be obeyed blindly. No one cooperates with such orders, because they are not convincing. Reasons must be given and the interest of the people, nay, even their enthusiasm must be aroused.

Mental hygiene should penetrate all our public health work. The more of mental disease we prevent the greater our help to humanity.

Let us get rid of as much as we can of the blighting, running mind troubles so disseminated that there is hardly a family entirely devoid of them. They make our people miserable, helpless, and unhappy and prepare further mental decay for the next generations. Let us get as close as possible to their causes. Let us free society from their strangle-hold and allow it to think more normally and rationally and work its way toward a greater happiness.

At the annual meeting of the New York State Association of School Physicians at Saratoga Springs, the following officers were elected:

President, Dr. Gilbert D. Forbes of Ken-
Vice-President, Dr. Dean F. Smiley

of Ithaca, Secretary-Treasurer, Dr. Marion Shepard of Batavia, Members of Executive Committee, Dr. Richard Weiser of Kenmore and Dr. C. A. Greene of Olean. Dr. Forbes presented a paper on "Problems of School Health Service."

health work—in the same sense as general personal hygiene is not private medicine and public health is not hospital treatment.

Mental health or the prevention of mental disease is closer to general public health than to psychiatry and medicine, although it is helped by both. And no public health work is complete or rounded out if mental hygiene, understood in a new fashion, is disregarded and excluded.

What, then, can public and official health agencies do for the prevention of mental diseases? Very much—and large and heavy programs might be detailed. But here I only wish to indicate as briefly and sketchily as possible a few of the feasible works as instances of what health authorities might undertake. These examples are meant to stimulate further practical suggestions by other workers.

To begin with, it is necessary to be informed about the worthwhileness of mental hygiene. Without being deeply convinced about its importance nothing can be done or it would be done half-heartedly. Then we must become interested in what I call the *transition cases*, those between mental health and mental disease, where prevention is still possible. As there is no definite boundary between health and disease of the mind, the cases of people who have begun to be unadjusted are to be found everywhere. They are extremely abundant and many are amenable to improvement if approached in the right manner and about 50 per cent of them, I claim from past experience with them, are curable. This is a broad and beautiful and fertile field, of much greater significance than that of the advanced cases. It has been comparatively neglected because it has been in the care of psychiatrists who are the greatest of medical men, but who usually are not health minded, who do not have the public health point of view, and are less interested in the transition cases than in the advanced ones.

I would advocate, therefore, preventive mental centers for adults conducted by health departments. I purposely would not call them clinics because they would really not correspond to what is commonly known by that word. They should be in the hands of special, or a novel type of, psychiatrists, who would be willing to work in a new spirit and with a new vision, that of prevention and that of having in mind the place of the individual in his group and in society. The function would create the organ. Naturally, they would have to be sympathetic and entirely absorbed in the study of these cases and their environment.

Of course, these centers would have to be connected with other public agencies whose object it is to solve or settle various individual problems, like courts, schools, parents' associations, trade unions, etc.

As child upbringing, sexual problems in all ages, but particularly in adolescence and youth, marital conflicts, industrial and economic difficulties, social frustrations contribute enormously to mental maladjustment or constitute its worst causes, every public health agency should turn its attention to these matters.

There should be a mental hygienist in each elementary or secondary public school of some appreciable size, one for a few smaller schools and several mental hygienists employed in each of the larger schools.

All pupils should be examined mentally once during their entrance year, reexamined if abnormalities are discovered, and a record kept about the findings. Irregularities should be discussed with the parents and the teachers. Behavior problems should be solved—or an attempt to solve them made—in cooperation with the parents, who would be instructed to report them. Very often it is their mistakes rather than those of the child that must be corrected and it is they who must be educated. Similar work is being done even now here and there, but insufficiently and not systematically.

The professional teachers' colleges should pay more attention to the study of child psychology and children's mental health. Health departments might be influential along such lines.

The child guidance clinics which were opened some years ago and functioned rather successfully in many places have been partly abandoned and partly shorn of their efficiency in the lean years. They should be revived, improved, and multiplied.

Easy courses in child upbringing for parents and future parents should be opened, preferably in public school buildings—always with a view of teaching possible mental disturbances and how to avoid conflicts which may lead to maladjustment.

Free marital consultation bureaus should be founded by health departments and all populated centers dotted with them. They should not be compulsory and should work in a rather friendly, sympathetic, and confidential way, trying to deal with the problems of young men and women who are willing to come for advice before marriage. These young people would be questioned, ex-

Medical News

Broome County

DR. CHARLES H. COLE, Superintendent and Medical Director of the Broome County Tuberculosis Hospital at Chenango Bridge, retires on Oct. 1 after sixteen years continuous service. Dr. Cole will reside in Binghamton.

TWO WINDSOR DOCTORS, Austin J. Stillson and William C. Armstrong, were honored by the Broome County Medical Society in August, at the opening of the centennial celebration of the founding of the Windsor township school. Scrolls which began as follows: "The people of Windsor township, with great affection and gratitude, tender this scroll to you as an expression of their sincere appreciation for your years of professional labor in their behalf," were presented to the two doctors by Dr. Samuel Allerton, president of the county association. Dr. Stillson has served thirty-six years and Dr. Armstrong, thirty-four years in Windsor.

Cayuga County

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Dr. John F. Lynch is president and Dr. F. S. Hassett secretary of the Society which last winter celebrated its 100th anniversary.

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and throat specialist for nearly twenty years. He was seventy-four. Dr. Brown practiced in Yonkers from 1890, when he was graduated from the College of Physicians and Surgeons, until 1897. He was associated with Dr. J. F. McLernan in New York until he went to Saranac in 1917. He belonged to many medical societies and was a member of the Medical Advisory Board during the World War.

Greene County

DR. B. W. GIFFORD addressed the members of the Greene County Medical Society in Haines Falls on July 20. Dr. Gifford is president of the third district branch of the New York State Medical Society.

Herkimer County

DR. FRED MORGAN BARNEY, who served in the United States Army as a medical officer in the Spanish War, the Philippine Insurrection, the Boxer Rebellion in China and the World War, died of a heart attack on Aug. 17. He was seventy-four years old and retired six years ago with the rank of captain in the Army Medical Corps.

Kings County

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Upholding the jurist's remarks from the bench that autoists suffering from "insulin shock" are potential killers, Dr. McGoldrick added the suggestion that the Motor Vehicle Bureau should submit all license applicants to thorough physical examinations instead of mere eyesight tests.

With dozens of his colleagues in Brooklyn who have told the press that the dangers are equally as great from those drivers afflicted with other ailments such as heart disease, paresis, advanced stages of tuberculosis, Dr. McGoldrick said he considered it wise to withhold licenses from all types suffering from ailments marked by sudden collapse, fainting spells and violent attacks.

Magistrate Solomon said he was elated by Dr. McGoldrick's remarks "especially since his position as Police Department surgeon gives added weight to this physician's statement."

Public Health News

Laboratory Aids in the Diagnosis of Infectious Mononucleosis

Infectious mononucleosis occurs chiefly as a sporadic disease of young adults, epidemics are rare. Glandular fever is a similar but probably different disease affecting children, epidemic outbreaks are not infrequent. Typical cases of infectious mononucleosis are characterized by fever, malaise, weakness, vomiting or nausea, enlarged and tender cervical or other groups of lymph nodes. Occasionally lymphadenitis is not observed. Sore throat and abdominal pain frequently occur. A diagnosis is established by the symptoms, a relative and absolute increase of large mononuclear cells in the blood—many of which are probably abnormal lymphocytes—and the demonstration of agglutinative properties for sheep red blood cells in the serum of the patient. Since the etiology of the disease is unknown, bacteriological studies are of no assistance except to exclude other infections. Although the acute attack is usually short, convalescence may be prolonged, in some cases extending over a period of several months. In its early stages the disease may be difficult to distinguish from acute lymphatic leukemia, but in the latter the patient's serum does not contain agglutinins for sheep red blood cells. The prognosis is always good.

Laboratory Findings

I Blood Count The blood picture is very

characteristic but not absolutely specific. Usually the total white blood cell count is between 12,000 and 20,000, occasionally there is a leukopenia, more than 50 per cent of the white blood cells are lymphocytes, many of which are of a type not normally found in the peripheral blood.

II Serological Test The blood of most patients with infectious mononucleosis agglutinates sheep red blood cells. From 5 to 10 cc of blood should be collected for the test. As is true in other diseases, these serological properties may not be demonstrated until a week or more after onset of symptoms. Also, the titer of the reaction has been found to diminish rapidly following recovery. In a consideration of the significance of agglutinative properties for sheep red blood cells, it should be borne in mind that blood of patients who have been injected with horse serum or certain other types of protein may also agglutinate sheep erythrocytes. The serum from children with glandular fever usually does not contain agglutinins for sheep red blood cells.

Although the incidence of infectious mononucleosis is relatively low in New York State, the disease is evidently more prevalent than is generally appreciated.—Leaflet issued by The New York State Association of Public Health Laboratories, May 1937.

Maternity Care Survey of Rural Relief Cases Now in Progress

A study of maternal care among rural relief cases is being conducted in Cayuga, Oneida, and Warren counties by social workers from the Children's Bureau of the United States Department of Labor working in cooperation with the New York State Departments of Health and Social Welfare.

The purpose of this investigation is to determine in selected rural areas of New

York State the number of women receiving prenatal, delivery, and postpartum care (medical and nursing) at public expense as well as the cost and available resources for obtaining such care. The study is being made under the supervision of Beatrice Hall with the assistance of Stella M. Perryman, Edna F. Clark, and Marguerite M. Eisenmann.—*Health News*, August 30, 1937.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces open competitive examinations for the positions of Associate Bacteriologist (\$3,200 per year) and Assistant Bacteriologist (\$2,600 per year). Optional branches are brucellosis, anaerobes, physiology of bacteria, and viruses.

The necessary application forms may be obtained from the Secretary of the Board

of U. S. Civil Service Examiners, at any first-class post office, from the U. S. Civil Service Commission, or from the U. S. Civil Service district office in the Federal Building, Christopher St., New York City. Applications must be on file with the U. S. Civil Service Commission at Washington, D. C. not later than September 20, 1937.

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Magistrate Solomon said he was elated by Dr. McGoldrick's remarks, "especially since his position as Police Department surgeon gives added weight to this physician's statement."

The judge declared he intends to seek a hearing before State Motor Vehicles Commissioner Charles A. Harnett to urge actual changes in the statutes regarding disease-stricken auto license applicants.

Magistrate Solomon said:

"All doctors are required by law to report to the police every case of gunshot wounds. Why shouldn't they be similarly required to file reports with the Motor Vehicle Bureau every case of serious disease or affliction so that the State may compare these with auto license lists. This method would save the bureau of examining thousands of applicants every year and keep its own records up to date."

New York County

DR. SAMUEL H. B. BASCH, ear, nose, and throat specialist and surgeon, died suddenly in his home of a heart attack on Aug. 5. Dr. Basch was chief surgeon at the Fordham Hospital, and chief of staff of the Manhattan Eye, Ear, Nose and Throat Hospital in New York.

DR. JAMES RAMSAY HUNT died on July 22 at his summer home in Katonah, aged sixty-three. He was Professor of Clinical Neurology at the College of Physicians and Surgeons, director of the New York Neurological Institute, consulting neurologist of the Psychiatric Institute, the Babies' Hospital, the New York Eye and Ear and the New York Hospital. He was consulting neuropathologist to the Craig Colony for epileptics and was consulting psychiatrist to the Lying-In Hospital and the Randall's Island Institution.

DR. N. PHILIP NORMAN, who makes a hobby of building miniature replicas of famous ships, won a round trip to France on the *Normandie* by his replica of the showboat *Cotton Palace* used in the filming of Edna Ferber's story, "Showboat" in a contest sponsored by Universal Pictures and the Model Builders Guild of Hempstead.

Ontario County

DR. CHARLES F. NIEDER is the Demo-

cratic candidate in the primaries for the nomination for mayor of Geneva. Local papers say his nomination "is practically a foregone conclusion."

Otsego County

DR. GEORGE H. BRINKMAN, one of the oldest and most prominent physicians and surgeons of Oneonta, died on Aug. 2 after a five weeks' illness. He was seventy-three years old and had been a resident of Oneonta for twenty-seven years. Next March would have marked fifty years of the practice of medicine and surgery for Dr. Brinkman, who had been located in Davenport, Franklin, Sidney and Denver, Colo., before locating in Oneonta.

Suffolk County

A TOTAL OF SEVENTY doctors and wives enjoyed a beef barbecue at Camp Baiting Hollow on July 28 at the dedication of the new Camp Infirmary presented by them to Mr. Harold R. Reeve of Mattituck, who as chairman of the camp committee, received the building in the name of the council.

Speakers at the infirmary dedication included Dr. George J. Fisher, deputy chief scout executive of the Boy Scouts of America, Dr. Stanley Jones of Mattituck and Mrs. Barnhardt.

A HOBBY PROGRAM for the handicapped children of Suffolk County will be the next project of the Women's Auxiliary to the Suffolk County Medical Society. The project just completed by the auxiliary was the furnishing of the new infirmary which was presented to the Boy Scouts' camp at Baiting Hollow by the medical society. The announcement was made by Mrs. William N. Barnhardt, president of the auxiliary, at a meeting held July 28, at the camp with the medical society to dedicate the infirmary building.

The executive board of the auxiliary met on Aug. 10 on board the yacht of Dr. Edward R. Hildreth of Bay Shore, to hear reports of work on the hobby program. Mrs. Hildreth was hostess.

It used to be thought that leprosy never developed in France, but was always contracted elsewhere. Within the past three years, however, it has been discovered that there are ninety-five lepers in Paris, living and moving about freely and without restraint. This has eventuated through a more friendly and considerate treatment,

which has encouraged the lepers to come forward and use hospital facilities provided for them. They are treated with considerable success with a new chaulmoogra oil and cholesterol preparation. Any compulsory measures or "dragooning" are opposed by the medical authorities as likely to send the lepers into hiding again.

Hospital News

Hospital Strike Barred by Injunction

SUPREME COURT JUSTICE ALBERT CONWAY issued a temporary injunction in Brooklyn on Aug 9, restraining members of Local 171, Hospital Employees Union of Greater New York, from calling a strike, picketing or interfering with the patients, the employes or visitors at the Jewish Hospital of Brooklyn. He directed the hospital to post a \$2,500 bond and prepare for an immediate trial after the answer was served.

"The affidavits establish that uninterrupted hospital service for the people of the city is so vital for the preservation of the general health of the community, and especially children, the sick and infirm, that any organized effort to interfere therewith must be regarded as an act of hostility to the common good, and such an unlawful object as to demand the exercise of the equity power of the court to the fullest extent," Justice Conway said.

The operation of a hospital in the community, Justice Conway wrote, affects the public welfare, lives, well-being and health of the people of the State. Moreover, he added, hospitals such as the plaintiff's have patients assigned by or coming through the jurisdiction of the city.

The Justice wrote

It may fairly be said that it is now the policy of the State that the various acts referring to labor disputes shall not apply to those employed by charitable, educational or religious associations or corporations. It is important to note that under the "little Wagner act" the other persons excluded from its application are employees of the State and subdivisions and agencies thereof.

This coupling of persons excluded from the application of the act by the Legislature was not done without reason and intent. The State the subdivisions and agencies thereof may not have their proper functions interfered with by strikes, and neither may charitable educational or religious associations or corporations. Chaos would result, and the public health and welfare would be materially affected.

In his decision Justice Conway incorporated the hospital complaint which recited the disorders that occurred in the hospital on March 15 when members of the union took possession of the kitchen and laundry. The complaint said there were 400 patients then housed in the hospital, forty-six of whom were dangerously ill. There were eighty-seven newly born babies also. Nineteen members of the union were arrested and convicted, but their sentences were suspended.

Social Security for Hospital Employees

THERE CAN BE LITTLE DOUBT that amendments will be made, from time to time, to the Social Security Act, when they seem necessary, and, when that time comes, there is a hospital superintendent out in Ohio who will favor bringing the hospital employees under the protection of its benefits. He is Mr. Harry H. Graef, and he gave his views, without any ifs or buts, at the meeting of the Ohio Hospital Association a few weeks ago. The editor of *The Modern Hospital* remarks that "You may agree or disagree with everything this superintendent says about social security legislation, but you will admire him for the honesty and sincerity of the convictions he expresses."

It is common knowledge, Mr. Graef declares, that hospital employees in general

are paid less for the same kind of work than similar employees in other lines of business or enterprise. Certainly no one would dispute the fact that the average hospital employee could not, on his earnings set aside enough to provide security for old age.

Briefly then, we have a group of employees who admittedly are unable from their own earnings to provide for themselves in old age or to protect themselves from the vicissitudes of employment. We have a federal law, which is to grant and provide for such protection to the employees of the nation. My first reason, then, for disapproving of this exemption is that if there is a need for such protection and we are assuming by virtue of the ex-

istence of the law itself that there is that need, then hospital employees are entitled to its benefits just as much as any other group and have the right to be permitted to participate

My second reason does not deal with the rights or privileges of employees or the fair administration of the Social Security Act, but it is of equal importance. It deals rather with certain basic principles and theories which apparently underlie the administration of many institutions, and which I feel are detrimental to the prestige of hospitals in general and are uneconomic.

It has been my observation that many hospitals for a long time have conducted certain phases of their business on a basis bordering on the practice of the professional mendicant. Whenever it appears there is an opportunity to obtain what looks like "something for nothing" they are the first to appear on the scene and their cries are the loudest for the first and the largest share. However, if there is an obligation to fulfill, and it is their turn to give rather than receive, they always offer a dozen reasons why they should be excused. This seems an unfair and undesirable policy to pursue.

I am completely sold on hospitals and hospital work. I have pride in the position they occupy in the community and the type of service they render. In fact, I am so thoroughly convinced of their worth and the value of their services that I resent seeing them asking concessions on the basis of favor, special privilege or plea of poverty.

They render inestimable service to any community and have the right to expect a fair reimbursement for services on the basis of merit, just as much as any other type of business.

If they expect to be rewarded on the basis of merit, it is illogical to avoid their

just obligations by sentimental pleas based on the character of their activities. If hospitals are justly and properly reimbursed for services, they can and should fulfill their duties.

The hospitals have a two-fold responsibility under our federal Social Security Act, the responsibility of fulfilling a share of our national life and bearing a share of the financial burden. They have the added duty of protecting the welfare of their employees and safeguarding them against unfair discrimination.

The policies and programs of hospitals are chiefly responsibilities of the superintendents. Certain duties and obligations are placed on our shoulders. We should be expected to operate not only an efficient, economic and professionally highgrade hospital, but should also see that our workers are happy and are accorded their rights.

I believe we, as superintendents, have a personal responsibility in this matter and that it is our duty to exert our best efforts that hospital exemption under the Social Security Act be annulled, because our employees have the right to expect benefits of protective legislation, and it is the duty of hospitals to bear their share of this national responsibility.

Let me add that no criticism is intended or implied with respect to the motives or sincerity of hospital representatives who worked to obtain exemption for charitable institutions under the act. My statements represent private opinions only. They are not indicative of the position taken by any organization with which I may be affiliated. I am not aware even if the board of trustees of my own hospital would agree with me. I do feel so strongly in the matter that I present my views to you in the hope that a sufficient number will agree with me making possible official action.

News Notes

PRIVATE AND VOLUNTARY HOSPITALS are not compelled to care for ill and injured patients without pay, even if they are emergency cases, under a ruling of Attorney General John J. Bennett. The opinion was given at the request of Assemblyman William M. Stuart, of Steuben County.

It is not expected that the ruling will have any great effect on New York City hospitals. Members of the United Hospital

Fund, which includes all the larger private institutions, would continue to give emergency service regardless of the ruling, according to David H. McAlpin Pyle, president of the Fund. A similar position is taken by voluntary hospitals in other parts of the State.

Mr. Pyle added:

But this service to auto accident victims is an increasing burden on hospitals and on the

medical profession. The American Hospital Association has just published figures showing that it cost the hospitals of the United States \$17,000,000 last year to care for 265,000 auto crash patients, and the hospitals were able to collect only 51 per cent of the sum. The net loss was \$8,330,000.

AN APPEAL HAS BEEN MADE to the city by the Voluntary Hospital Conference of Queens County for increased allowances for the support of emergency cases admitted to voluntary hospitals, and Dr S. S. Goldwater, Commissioner of Hospitals, has been unofficially informed that similar demands shortly will be made by voluntary hospitals throughout the city.

The city now pays \$3 a day for each medical and surgical patient admitted to a private hospital and approved as a "medical indigent," i. e., one who is unable to pay a hospital bill.

For cancer cases the city rate is likewise \$3 a day, but for the general run of chronics, the per capita *per diem* allowance is only \$1.15. If the current rates were raised only twenty-five per cent, the city's contribution to private hospital support would be increased by \$1,500,000.

NO MORE APPROPRIATE USE could be made of New York State's gasoline tax surplus than to reimburse hospitals for the expense and care of indigent persons injured in motor vehicle accidents. David H. McAlpin Pyle, president of the United Hospital Fund, said in an address over radio station WHN:

"If the state will pay the hospital bills for the poor victims of traffic accidents, the hospitals will be better able to care for the needy ill and injured," Mr. Pyle asserted. "Last year alone the United Hospital Fund's ninety-two member hospitals gave nearly 2,000,000 days of free hospital care. Needless to say, the hospitals could not have made this huge investment in the health of our neighbors and ourselves if they did not receive charitable contributions through the United Hospital Fund."

Mr. Pyle recalled that after the hospitals in Ohio had suffered a \$1,000,000 loss from traffic accident cases from 1931 to 1933, a temporary law was passed to reimburse hospitals from state funds. The law worked so well that it was made permanent, he

said. It would seem, he said, that New York and New Jersey could profit by Ohio's experience.

THERE MUST BE SOMETHING MORE than coincidence in the fact that Independence Hall is situated in Philadelphia, remarks the Rochester *Times Union*, as it notes that the County Medical Society there has sharply attacked the group hospitalization plan now operating in many cities. Even though the Philadelphians' argument seems to belong in the "everyone is out of step but me" category, it is interesting as an example of high-grade hair splitting.

They oppose the plan by which a member of a hospital service corporation secures a stated number of days' treatment by paying a small monthly fee, upon this basis "that it places the participating hospitals in the position of contracting to deliver, for a consideration, the services of certain physicians on the staffs of those hospitals."

In the opinion of the society this "is nothing more nor less than the corporate practice of medicine, illegal in Pennsylvania, where the practice of medicine is limited to duly licensed physicians."

It is too bad, adds the Rochester paper, that the doctors, hospitals and residents of so many cities where this plan is in satisfactory operation, should have been so misguided. What better plan do the Philadelphia physicians offer?

FOUR OUTSTANDING ITALIAN CLINIC PROFESSORS arrived on the Rer on Aug. 5 for a one-month study of leading American hospitals and clinics. They were Giorgio Ferreri, Cesar Frugoni and Guido Egidi, of the University of Rome, and Camillo Arturo Torrigiani, of the University of Florence.

THE ITALIAN HOSPITALIZATION SOCIETY INC., began to maintain free beds for indigent Italian patients in the Parkway Hospital in New York City on September 1 and a staff of Italian physicians will provide medical, surgical and obstetrical services. The members of the Italian staff appointed by the medical board of the Parkway Hospital, will also serve as the medical advisory committee of the society.

Improvements

LUCIUS N LITTAUER, philanthropist and retired glove manufacturer, has given the seven-story building on the southwest corner of Irving Place and Eighteenth Street New York City, to the National Hospital for Speech Disorders, it is announced by Dr James Sonnett Greene, medical director of the hospital

Expanding in its new home and endowed by Mr Littauer, the institution will become known as the Lucius N Littauer Institute for Speech Disorders

The building, formerly occupied by the New York Telephone Co, will be remodeled and equipped by Mr Littauer and will represent a gift estimated at from \$200,000 to \$225,000

The present location of the hospital, 126 East Thirtieth Street, will be used as executive offices for the time being, Dr Greene said, indicating it might be disposed of at some future date The board of directors, he announced, has been re-organized as follows Mr Littauer, president, Dr Bernard Sachs, vice-president, A J, Allis, secretary, Walter Seligman, treasurer, Miss E J Wells, assistant treasurer, Ira Skutch, counsel, and Dr Henry Sage Dunning and A Robert Munro, members

Dr Greene said that Mr Littauer, who is seventy-eight years old, became interested in the hospital through Dr Sachs who was his classmate at Harvard and was formerly president of the New York Academy of Medicine Mr Littauer, who

established the Lucius N Littauer Foundation in 1929, gave Harvard \$2,000,000 in 1935 to establish a graduate school of public administration

A FIVE-STORY HOSPITAL costing \$674,900 is to be constructed by the City of New York at 18-26 East End Avenue and 535-545 East Eightieth Street, northwest corner, from plans by Louis E Jallade, architect The building will have a base 82 9x139 The first floor will be given over to administration and waiting rooms and the upper floors developed for clinics A one-story Department of Sanitation building now stands on the site

A \$9,500 APPROPRIATION for the installation of 202 private cubicles for patients in the treatment room and the third and fourth floor wards of Lincoln Hospital in the Bronx has been approved by the Board of Estimate The expenditure was listed in 1935 when an issuance of \$152,000 in tax notes was authorized for the improvement of the hospital

THE DIRECTORS OF THE Dansville General Hospital have had plans drawn for the contemplated maternity addition and have asked contractors for bids The cost is figured at about \$25,000

At the Helm

FIRST APPOINTMENTS TO THE medical board and staff of Welfare Hospital for the chronic sick, which will be a teaching and research center for Columbia University College of Physicians and Surgeons, Cornell University Medical College and New York University College of Medicine, are announced by Dr S S Goldwater, Commissioner of Hospitals

In affiliation with the Department of Hospitals, the medical staff of the \$7,000,000 hospital under construction on Welfare Island will comprise three divisions of equal rank and each will be under the direction of one of the medical colleges

Dr Goldwater said the physicians nominated by the medical schools to take charge

of the divisions and approved by the department are

For the Columbia division the director of medicine will be Dr Randolph West, and the director of surgery will be Dr William Barclay Parsons

For the Cornell division the director of medicine will be Dr Irving Sherwood Wright, and the director of surgery will be Dr Ralph Firestone Bowers

For the New York University division the director of medicine will be Dr Norman Jolliffe, and the director of surgery will be Dr William Howard Barber Dr Wright is to be president of the medical board, with Dr West as vice president, and Dr Jolliffe as secretary

Medicolegal

LORENZ J. BROSVAN, ESQ

Counsel Medical Society of the State of New York

Claim of Foreign Body in Throat

A doctor specializing in ear, nose, and throat work was served with a summons and complaint in a malpractice action in which the charge in the complaint was that the defendant had treated a certain infection in the neck of the plaintiff negligently, in that he had inserted a rubber drain in the neck of the plaintiff and had failed to remove the same so that it lodged therein for many months, causing her great damages. The defendant, upon receipt of the said papers, had no recollection of ever having treated the plaintiff named in the summons and complaint at any time. Before the case came on for trial it was ascertained that the plaintiff's name, as specified in the legal papers, was a different name from the one she had been known by at the time she claimed to have been treated by the defendant. The defendant, upon checking over his records, ascertained that a girl about sixteen years of age, who apparently was the plaintiff under her earlier name, had, on one occasion five years before, come to him complaining of a large swelling on the left side of her neck, which had been previously opened and drained by another doctor. The defendant found that he had diagnosed the condition as cervical adenitis, and had dressed the wound and told her to return in a few days. The doctor was unable to ascertain from his records whether she did return to him at any time for any further treatment and he was unable to recall such facts, although he was certain that he did not operate upon her in any way.

A bill of particulars was obtained from the plaintiff for the purpose of ascertaining the number of times it was claimed that the defendant treated her and, according to the bill of particulars, the plaintiff was treated over a period of four months. She specifically claimed that the defendant had treated her about forty times in all and that he had on various occasions lanced pus pockets in her throat and had inserted various rubber drains in the incised regions. The claim specifically stated that on one occasion the defendant neglected the drain inserted by him on a previous occasion and that instead he inserted a second drain over the old drain and that the old drain was

permitted to remain in the neck for a long period of time until removed by another physician.

Investigation of the situation revealed that at a date after the last time it was claimed she was treated by the defendant, the plaintiff went to the clinic of a large hospital where she received treatment for a condition involving the glands of her throat. The records of that institution having been made some years before were difficult of interpretation. An entry appeared on one day stating that a rubber drain was removed, although no entry on a previous day showed that one had been inserted. The physicians who treated her at the clinic were unable to recall the matter at all.

When the case came up for trial without a jury the plaintiff undertook to build a case around the said entry in the clinic records and to claim that said entry indicated conclusively that the defendant had in fact permitted a rubber drain to remain in the throat for some months, causing her various injuries, which she undertook to describe. She testified that she had been cared for at the defendant's office on at least forty occasions, and was corroborated in such testimony by members of her family and by a taxi driver, who testified that he remembered the matter very well, since on each of the said forty occasions he had taken her and a member of her family to the defendant's office at a flat rate.

The turning point in the case, however, was when on cross-examination the plaintiff was asked if she was able to point out the defendant in the court-room. Although she was given ample time to pick out the defendant, and although he was sitting at the counsel table in full view she was unable to identify him. The defendant, of course, testified to treatment as outlined above.

At the conclusion of all the testimony the court directed a verdict in favor of the defendant and commented in so ruling upon the significance of the fact that the action was delayed for over five years, and upon the plaintiff's failure to identify the defendant.

Across the Desk

The Heart Disease Racket

THIS CONTINUOUS VAUDEVILLE, three-ring circus, or high jinks that we humorously call civilization is always putting on some new act to pop the eyes of the on-lookers. The latest amazing performance is what is known as "the heart-disease racket" in New York City. In this "racket," or scheme, dishonest lawyers, doctors, insurance agents, and policyholders conspire together to defraud the insurance companies by cooking up bogus cases of heart-ailments and collecting disability payments, which were divided up among the racketeers, probably much in the same way as the crews of Captain Kidd and Blackbeard shared the proceeds of their piracy.

Thirty-nine persons have been indicted for these frauds, including ten physicians, seven lawyers, two insurance agents, and twenty policy holders. More indictments are in prospect. Eight large insurance companies were the victims, and the swag is said in some cases to have run as high as \$12,000 a year, paid for illnesses that never existed.

Secret of What Won the War

This is exactly the sort of news that is cabled to Europe and appears in the papers over there to picture to Europeans the sort of country we have here. The "American news" in the transatlantic sheets is news of murders, robberies, kidnappings, racketeering, and every kind of crime in the calendar. Many European folks imagine that our population is made up largely of gangsters, gunmen, and sharpers. The movies displayed over there add wild western cowboys and handsome heroes who grab villains by the neck or feet and toss them lightly out the window or over the cliffs.

That is said to be the reason why the proud German army, hitherto unconquered, turned and put for home and fatherland when the American doughboys appeared on the battlefield. The German soldiers had all seen what American men could do in a fight in the movies, and they well knew in their own souls that they were not made of any such stuff. Wellington said that

Waterloo was won on the playing fields of Eton—perhaps the Great War was won on the movie lots of Hollywood.

Doctors in Topsy-Turvy Land

Well, now the American doctor is added to the "American news" in the papers of Great Britain, France, Germany, Italy, and other lands. A doctor is supposed to be somebody who makes sick people well, but here we have a group of physicians who made well people sick, or sick enough, anyway, to collect disability payments. That is what makes this racket a vaudeville or circus act, it is something contrary to nature, like the bearded lady or the two-headed calf. Imagine a doctor saying to a patient, "How would you like to have angina and a check for \$1,000?" It is a scene that belongs in Coney Island's house upside-down.

It must be confessed, however, that the medical men were not the "big shots" in this racket. It was run, it seems, by a number of gentlemen of the legal profession, whose "runners" or agents approached insurance policy holders and persuaded them to take advantage of the disability clauses in their insurance policies. The legal luminaries found struggling physicians who were having a tough job to keep their heads above water in the hard times, and tempted them into the scheme with promises of glittering rewards. One reward they overlooked was to have their names blazoned across the front pages of the newspapers as partners in a racket with an unsavory crew of scalawags. Worst of all, perfectly reputable and high-minded physicians, too, were victimized without knowing anything about it. Policy holders in the racket were sent to visit these doctors, coached to describe symptoms that would be jotted down on the doctors' records to indicate heart disorders. Sometimes drugs would be given before the visit to produce confirmatory symptoms. All this "built up" the evidence, so that if the insurance company refused payment, as often happened, a jury would enforce the claim.

The Moral of the Tale

After all, but ten physicians out of the many thousands in New York City and State are involved in this racket, and so far they have been only indicted, not proven guilty, or brought to trial. Under the law, they are presumed to be innocent until guilt is proven. No possible stigma attached to the medical profession. But, at the same time, this unfortunate affair carries a serious warning that the entire profession should heed. If the game worked so well for a time in New York City, is it unlikely that crooks, high and low, will try it out elsewhere? Insurance companies are perpetual targets of swindlers, and it would be strange indeed if this new device were overlooked. A few years ago a fat volume was published, called "Crimes of Insurance," and hundreds of pages were devoted to the fires, murders, and other kinds of mischief perpetrated by rascals trying to extract money from companies formed to aid widows, orphans and other victims of ill-fortune. It is an industry that never ends, and takes no holiday, except behind prison bars.

Physicians, then, should be on their guard. Dr O F Hedley, who served as medical adviser to the office of the United States attorney investigating this racket, wrote an article about it that came out in the *Journal* of the AMA a few weeks ago. He advises doctors to exercise the greatest caution if unknown patients are referred to them with "complaint of angina pectoris and no very sound objective evidence on which to base a diagnosis of cardiovascular disease." If the doctor innocently accepts the new patient's description of his symptoms, and writes them down in his case records, he may later be amazed to find himself called as a witness and used as a tool in some case that reeks of fraud.

A plan recommended by Dr Hedley is "the practice employed by some consultants of limiting prognoses in ambulatory patients to the relatively near future." This, he points out, makes it much more difficult to use the report subsequently as a basis for a claim of total and permanent disability. Furthermore, he advises that the consultant, if in any doubt, should obtain a written statement from the referring physician and patient concerning their intention of using the report for litigation or for insurance claims. No racketeers would be very likely to call a consultant into court if he could bring with him this evidence of their bad faith. Also, in examining a patient, remarks Dr Hedley, "the possibility of surreptitious digitalization should be borne in mind, especially in interpreting electrocardiograms showing tracings compatible with digitalis effects."

Turning to the less innocent doctors who figure in this shady business, it is undoubtedly true that every city has its physicians who have been hard hit by the depression, who have families to feed and shelter, and who do not know where to look for a way out of their desperate difficulties. It is to such men that the racketeers come, promising lucrative rewards for "a bit of deception that harms nobody except a big rich insurance company." It sounds like picking up money in the street. Before long, however, the doctor finds himself involved in a criminal conspiracy that makes him liable to a term in prison, if discovered, he finds that his part of the swag is very small indeed, and, when the district attorney is done, he finds his name blackened forever and his medical career finished. Taking it strictly on a dollars and cents basis, with all moral considerations left out, it is, as the saying goes, "a mug's game," and it is a thousand times better to realize it before than too late.

Why Editors Go Mad

A LAUGHABLE TYPOGRAPHICAL SLIP occurred in these pages on August 15, laughable because it was so evident that no one could possibly be deceived by it. An error in a scientific article might conceivably confuse somebody and do harm, though not so badly as in the old story of the man who treated his own ills with a "doctor book," and died of a typographical error.

In this case two passages on pages 1476 and 1477 were transposed, so that on one the reader was solemnly informed that the Delaware legislature had enacted a law providing

"That the Medical Association of Georgia establish at the office of the Association in Atlanta a Public Relations Bureau similar to that now operated by

the Medical Society of the State of New York."

And on the other was the amazing news that the Medical Association of Georgia was licensing chiropractors! Exchange the types, and you find Delaware licensing chiropractors and Georgia setting up a Medical Public Relations Bureau

The next paragraph began

Nor is that all," and went on to recommend sponsoring a doctor "for a legislative post," instead of "a legislative post," as written

All of which explains why editors are so rapidly filling the nation's best insane asylums

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

The Patient and the Weather By William F. Petersen, M.D. Volume I Part 2—Autonomic Integration, \$9.00 and Volume IV Part 1—Organic Disease Cardio-Vascular-Renal Disease Including a Chapter on Experimental Endocarditis by Alexander J. Nedzel, M.D., \$10.00. Quarto, illustrated. Ann Arbor, Edwards Brothers, Inc., 1937. Cloth.

Legal Medicine and Toxicology By Thomas A. Gonzales, M.D., Morgan Vance, M.D. and Milton Helpner, M.D. Quarto of 754 pages, illustrated. New York, D. Appleton-Century Company, 1937. Cloth, \$10.00.

The Larynx and Its Diseases By Chevalier Jackson, M.D. and Chevalier L. Jackson, M.D. Octavo of 555 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth, \$8.00.

Collected Papers of the Mayo Clinic and the Mayo Foundation Edited by Richard M. Hewitt, M.D., Lloyd G. Potter and A. B. Nevling, M.D. Volume XXVIII. Octavo of 1331 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth, \$12.00.

The Normal Encephalogram By Leo M. Davidoff, M.D. and Cornelius G. Dyke, M.D. Octavo of 224 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$5.50.

Personal Hygiene. By Clair E. Turner, Dr. P.H. Octavo of 335 pages, illustrated. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$2.25.

The Endocrines in Obstetrics and Gynecology By Raphael Kurzrok, M.D. Octavo of 488 pages, illustrated. Baltimore, Williams & Wilkins Company, 1937. Cloth, \$7.50.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Edited by H. Letheby Tidy, M.D. and A. Rendle Short, M.D. Octavo of 605 pages, illustrated. Baltimore, William Wood and Company, 1937. Cloth, \$6.00.

A Textbook of Applied Biochemistry for Pharmacists and Pharmaceutical Students. By Frank Wokes, B.Sc. Octavo of 522 pages, illustrated. Baltimore, William Wood and Company, 1937. Cloth, \$5.00.

Sex Life in Marriage By Oliver M. Butlerfield, M.A. Duodecimo of 192 pages, illustrated. New York, Emerson Books, Inc., 1937. Cloth, \$2.00.

Physical Diagnosis. The Art and Technique of History Taking and Physical Examination of the Patient in Health and in Disease By Don C. Sutton, M.D. Octavo of 495 pages, illustrated. St. Louis, C. V. Mosby Company, 1937. Cloth, \$5.00.

REVIEWED

The Thyroid and Its Diseases By J. H. Means, M.D. Being an account based in large measure on the experience gained in the Thyroid Clinic of the Massachusetts General Hospital. Octavo of 602 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1937. Cloth, \$6.00.

This book may be highly recommended to the specialist and general practitioner. While disclaiming to be encyclopedic in its scope, it comes very close to being such. The thyroid gland, its hormones, the relation of the thyroid to other endocrine glands, the pathology, symptomatology, ex-

aminations, medical and surgical treatment of simple goiter, myxedema, cretinism, toxic goiter, nodular goiter, malignancy, inflammation, and anomalies are splendidly discussed.

The author takes up the use of thyroid medication in other diseases than those of thyroid origin, such as obesity, hypometabolism, sterility, habitual abortion, skin diseases, heart block, deafness, vertigo, and diseases of the eye. Total thyroidectomy in diseases not of thyroid origin, such as congestive heart failure, angina pectoris, diabetes, and leukemia, receives proper atten-

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W. 42nd St., N. Y. C.) postage prepaid. Order must be accompanied by remittance covering published price.

tion Equally important is a fourteen page discussion of "fact and fancy in matters thyroid."

The book makes easy reading is practical, and on all controversial points gives the authors' conclusions and their reasons therefor. The printing is excellent, the charts are sufficient and very illustrative, the index good, and the bibliography provocative and happily not over exhaustive. Dr Means and the publishers are to be complimented on this splendid work.

MEYER A. RABINOWITZ

Light Therapy By Frank Hammond Krusen, M.D. Second edition, revised and enlarged. Octavo of 238 pages, illustrated. New York, Paul B. Hoeber, Inc., 1937. Cloth, \$3.50.

In this second edition of his book the author has gathered a valuable fund of information on light therapy. Because of excellent grouping and tabulation, the value of the work is even further enhanced. The review of mechanical equipment available is inclusive and thorough, with a totally unbiased description of the characteristics of each item. Convincing case reports and precise detail of technique add to the value of the work. Of particular interest are the notes on the treatment of erysipelas and the changing opinion of the value of actinotherapy in pulmonary tuberculosis. A most interesting historical sketch introduces the text which then continues to completely cover its subject in a truly fascinating manner. Adequately illustrated, clearly printed and well bound, the book may be highly recommended both to the student and the practitioner of light therapy.

JEROME WEISS

Endocrinology Clinical Application and Treatment. By August A. Werner, M.D. Octavo of 672 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$8.50.

The stupendous progress made by endocrine research in recent years has aroused the interest even of the more skeptical members of the medical profession. This interest is documented by the publication of several books dealing with the clinical application of endocrinology. Dr. Werner's treatise is among the more useful of this group. His approach shows the result of inspiration received from the late Dr. Engelbach whose clinically important subdivision of endocrinopathies according to age groups he has followed conscientiously. In favorable contrast to some other recent publications on the subject, the author shows familiarity with both the clinical aspects of endocrine disorders and the

physiology of the endocrine glands. His book is well illustrated and documented with a large number of interesting case histories. It is a valuable guide for the practitioner and also contains interesting information for the student of endocrine problems.

MAX A. GOIDZIEHER

Safe Childbirth The Three Essentials Round Brim, Flexible Joints, Natural Posture. By Kathleen O. Vaughan, M.B. Octavo of 154 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$3.00.

Another book by an author whose wealth of experience in India, Kashmir and Egypt has provided her with the interesting material which has been so clearly presented. An answer can be found here to that question so frequently asked: "Why is childbirth in the native woman so much easier than in her civilized sister?" One cannot help but be impressed if not entirely convinced by the author's logically presented data favoring round brim, flexible joints and normal posture as a means to safe childbirth.

There is contained in this brief volume much for deep consideration by anyone whose interests are directed towards obstetrics.

JAMES L. O'LEARY

Materia Medica, Toxicology and Pharmacognosy. By William Mansfield, A.M. Octavo of 707 pages, illustrated. St. Louis, The C. V. Mosby Company, 1937. Cloth, \$6.75.

Pharmacognosy means the science of drugs in all their relations: sources, description, preparation, action, dosage, etc." This study in recent years has been considerably neglected, largely because some other fields seem of more burning interest and of more importance in these days of simplification of drug administration and ready made combinations of drugs. It does seem though, that one should know the appearance of such drugs as the fog-glove about which we talk so much and do not even know it when we see it growing in the fields. The description of drugs from plants, barks, leaves, seeds, etc. makes one realize that he has forgotten most of what he knew about such things.

There is a very good section on poisons which is quite full and glossaries of therapeutic and botanical terms. Most physicians will find that this book covers some things out of the usual line of thought and very useful for reference.

WILLIAM E. MCCORMICK

Home Care of the Mental Patient By Arrie Querido 16mo of 93 pages New York, Oxford University Press, 1936 Cloth, \$1 00

The aim of this book is to convey in simple language the basis of the behavior of those who are mentally sick. In the Netherlands, mentally sick people are apt to be treated more in their homes than to be committed to mental hospitals. The effort is directed to educating the community to looking after the mentally sick in its own midst.

There are many valuable points mentioned in the book that will be a help not only in managing mentally sick people, but also in the detection of the early manifestations of mental disorder.

It is a practical and valuable little book.

IRVING J SANDS

International Clinics A quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. Edited by Louis Hamman, M.D. Volume 4, 46th Series, 1936 Octavo of 352 pages, illustrated Philadelphia, J. B. Lippincott Company, 1936 Cloth \$3 00

This issue contains articles by many well known writers on medical topics, and covers a wide field. Phases of pulmonary tuberculosis, lung abscess, and emphysema are among the lung conditions presented. Gastroscopy, gall bladder disease, nutritional edema, hypertension, essential thrombocytopenic purpura, bedside recognition and treatment of cardiac irregularities, and a clinic on cardiovascular diseases are other subjects treated in this volume. It contains also papers on acne and scabies. This issue of this quarterly is deserving of careful study, as much can be learned from its use.

HENRY M MOSES

Preoperative and Postoperative Treatment. By Robert L. Mason, M.D. Octavo of 495 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937 Cloth, \$6 00

This volume brings up to date the recognized preoperative and postoperative treatment in 467 pages of text and 123 photographs and black and white illustrations. It also contains contributions from twelve different Boston physicians and surgeons. The book itself is divided into two parts: the first containing chapters on general topics, such as, anesthesia, shock, acidosis, alkalosis, etc. The second part contains chapters on regional topics, such as care of the ears, nose, throat, diseases of the gall bladder, diseases of the stomach and duodenum, hernia and traumatic injuries. Throughout the entire work, the author

and his contributors have succeeded exceptionally well in including in their description the various methods of treatment which are definitely recognized, a fact that makes the volume exceptionally valuable as a desk reference book to the busy practitioner of surgery.

Some of the chapters in the book, however, could contain a little more detail in regard to the treatment of important conditions, such as shock. In general this work has treated the various topics in a very excellent manner, but it will not take long (as the past has proven) for many of the suggested forms of treatment to become obsolete, when that time arrives, let us hope that Dr. Mason can give us another edition.

HERBERT T WIKLE

Amino Acid and Ammonia Metabolism in Liver Diseases. By Esben Kirk. Octavo of 147 pages. Copenhagen, Levin & Munksgaard, Publishers 1936 Paper, Danish Kroner 10

This monograph is a compilation of the investigations which Dr. Kirk performed while resident physician in the Bispebjerg Hospital, Copenhagen. It includes studies both in dogs and human beings and is a very comprehensive summary of the role of the liver in protein metabolism. It takes up in great detail the physiology of deamination of the amino acids, the formation of urea in the liver and ammonia urea partition. There are many tables and charts showing the result of his work in the normal and a comparison of these findings with those occurring in various diseases of the liver. He places great stress on the blood ammonia concentration and has analyzed them, both in systemic venous blood and portal blood, showing especially, that in cirrhosis of the liver there are sufficient functional derangements to result in an increase in blood ammonia concentration. He finally describes an ammonia tolerance test for the diagnosis of liver cirrhosis. The author maintains however, that this test does not represent a functional test of liver tissue, but is a procedure for the detection of anatomical abnormality, represented by abnormally developed anastomoses between portal vein and vena cava. These increased ammonia values then are expected to be found in all cases of partial obstruction, besides those of liver cirrhosis. The ammonia tolerance test encompasses a difficult analytical technique and would hardly be suitable for routine use in hospital practice. The monograph closes with a summary of 57 cases.

WILLIAM S COLLENS

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HISTOGENESIS OF LAENNEC'S CIRRHOSIS

JAMES FINLAY HART, M D and JAMES R LISA, M D, *New York City*

This is a report of a study of thirty-six cases showing liver pathology that came to autopsy at the City and Midtown Hospitals in New York City from 1926 to 1937. The main object of this investigation was to determine, if possible, the histogenesis of Laennec's cirrhosis. We will give a brief review of the pertinent literature, report our findings, and then our conclusions. We will use the term Laennec's cirrhosis in preference to any of the other synonyms commonly employed for this condition because we think that Laennec's classical description completely covers this form of cirrhosis whereas other terms such as portal alcoholic, atrophic, etc., are incomplete and misleading.

Diagnostic Criteria

We realized at the start that some diagnostic criteria for Laennec's cirrhosis had to be established as there were variations due to degree and duration of involvement with many borderline and mixed types. The consensus of opinion, as shown by Moon,¹ seems to be that this form of cirrhosis is characterized by a change in the liver architecture. The normal lobules consisting of cords of cells, radiating spoke-like from the central vein to the periphery, have been supplanted, more or less, by adenomatous-like masses of hepatic cells that have lost their radiating arrangement and have been separated from their central veins.

These new formations, called nodules, may partially or completely fill the liver and there may usually be found, at the periphery, a parenchymal cell degeneration with a neighborhood leukocytic infiltration and a fibrous tissue proliferation.

It was further apparent that owing to the great amount of confusion regarding the pathologic processes involved under this term, it would be advisable to keep certain questions in mind during the study. The following queries were formulated for this purpose:

- 1 Is Laennec's cirrhosis a specific disease entity?
- 2 Is it the result of any one or any combination of lesions?
- 3 Is it the result of a new set of factors becoming active after liver damage?

A Specific Disease Entity?

The most commonly held belief is that Laennec's cirrhosis is a specific disease entity. This has been the general feeling for many years with the admission however, that it could not be proved. Because certain histologic changes closely associated with infection are present in the great majority of cases it is commonly held that some unrecognized low grade infection is the producing agent and because it usually progresses to a fatal stage it is thought that the infection is continuous.

Although we can distinguish the intermediate and late stages of this condition we are unable to recognize any characteristic early change. We find, after a perusal

Read at the Midtown Hospital Clinical Conference, January 18, 1937, St Elizabeth's Hospital Staff Meeting, March 2, 1937.

of the available literature, very little said about the early stage, only one investigator, Mallory² making any mention of it. He states that a fine-to-coarse acidophilic reticulum in the cytoplasm of the parenchymal cells is characteristic and diagnostic, that it may be found before evidence of cirrhosis is present, and that the degenerative changes occur throughout the lobule but are usually most marked, at least in the early stages, around the central vein. This acidophilic reticulum is found as well in the periphery of the nodules. This idea of its importance is shared by very few investigators, Moon believing that it simply represents activity of the process rather than a diagnostic feature.

All other references state or infer that the diagnosis is not made until the nodules of regeneration have formed and that the activity of the disease is determined by the condition of the cells in the periphery of the nodules. Therefore, because of the paucity of data relating to the incipient or prenodular stage and because of the abundance of references to the later or nodular form, we are suspicious that there is no specific early stage and that the condition is not recognizable until the liver is damaged enough to be nodular.

Hence without a recognizable early stage one hesitates to believe that Laennec's cirrhosis is a specific disease entity.

Result of Any One or Any Combination of Lesions?

A certain number of writers today believe that Laennec's disease may follow any one or any combination of lesions. Mallory² states that pigment and healed yellow atrophy (central necrosis) very frequently are indistinguishable from "alcoholic" cirrhosis. These types then are potential cases of Laennec's disease. Observing his table (see accompanying Table I) we note these classes stand second and third in order of frequency, and added to the frank "alcoholic" represent a total of 365 out of the 550 cases of cirrhosis. Making a further correction by dropping the 104 not classified cases we have 365 out of a possible 446 (82%) either definitely or potentially of the Laennec type. Again disregarding the 270 that are positive Laennec's and the 104 that cannot be classified, we find that the pigment and healed yellow atrophy varieties constitute fifty-four per cent of the remainder. According to Mallory then, "alcoholic" cirrhosis may follow two different forms of cirrhosis and these two forms constitute

over fifty per cent of the primary cirrhotic states as tabulated.

Chapman³ says that atrophic cirrhosis with ascites represents a common end stage of any type of diffuse chronic degenerative or inflammatory lesions of the liver in which its structure is greatly injured or disorganized. He does not believe that it is necessarily a specific disease entity and says that it is well-established that diffuse hepatitis of almost any type may progress to cause portal obstruction and ascites.

Moon¹ in an exhaustive review of experimental cirrhosis in relation to human cirrhosis, showed that a condition in animals, similar to Laennec's in man, could be produced by a number of inorganic chemicals, organic substances, serologic agents, and infections. Furthermore, in many instances combinations of agents were found more efficacious than either agent alone. He states it is admitted that congenital luetic cirrhosis may result in a form of cirrhosis resembling Laennec's.

Hence, from the opinion of several serious workers in this field, together with the evidence of experimental studies made on animals, we are led to believe that Laennec's cirrhosis can follow any liver lesion or any combination of liver lesions.

This was the belief of McCabe and Hart⁴ and our findings in the thirty-six cases here reported lead us to the same conclusions.

In Table II we have listed the cases as they were registered in the autopsy records. A perusal of this table brings out clearly the difficulties encountered in classifying any group of cirrhotic livers. As we have previously stated great confusion exists because of the degree and duration of the involvement and because of the large number of borderline and mixed types. It will also be noted that distinctions were not made on pathology alone, the clinical history assisting in many cases. This fact thereby favoring the multiple etiology of cirrhosis. It has been customary in our hospitals to use an arbitrary standard in registering Laennec's cirrhosis. Those livers that weigh over 1200 grams are called chronic hepatitis while those that fall below that figure are termed Laennec's disease.

Result of a New Set of Factors Becoming Active After Liver Damage?

The third consideration in our study involves the possibility that Laennec's disease is the result of new factors, primarily non-pathogenic, that have become perverted as the result of damage to the liver. If we

review the accepted diagnostic criteria for this form of cirrhosis we find a damaged liver is a necessary preliminary. This damage, however, must be of a certain type. It must be such to cause a change in the architecture of the lobule.

TABLE I—CASES OF CIRRHOSIS AT THE BOSTON CITY HOSPITAL

Total number of autopsies during the past 35 years	9346
Total number of cases of well marked cirrhosis of the liver	550 5 88%
They are classified as follows	No %
1 Alcoholic cirrhosis	270 48.90
2 Pigment cirrhosis	49 8.90
3 Healed acute yellow atrophy	46 8.36
4 Syphilitic cirrhosis	28 5.09
5 Colon bacillus cirrhosis	25 4.54
6 Obstructive cirrhosis	24 4.36
7 Obstructive and colon bacillus cirrhosis	3 0.54
8 Cancer cirrhosis	1 0.18
9 Not classified	104 18.90

From F. B. Mallory "Cirrhosis of the Liver," *New England Jour. of Medicine* 206 1231, 1932

TABLE II

Type	Name	Sex	Age	Weight of liver	Associated findings
CHRONIC	C. F.	F. W.	65	1325	Syphilis
	R. S.	F. W.	42	2800	Alcohol
	S. P.	M. W.	48	2900	Alcohol
	R. M.	F. W.	35	1750	Parasitic suppurative
	B. C.	M. W.	73	1350	Syphilis. Cardiac C. P.
	F. C.	F. W.	61	Large	C.
	A. K.	M. W.	54	"Large"	Syphilis
	G. R.	M. W.	65	1250	Syphilis
	T. L.	M. W.	49	1800	Alcohol. Diabetes
	S. S.	M. W.	55	1500	Gall-stones
SUBACUTE	P. G.	F. W.	39	2300	Alcohol
	E. C.	M. W.	40	1450	Alcohol. Drugs. Acute suppurative cholangitis
	J. C.	M. W.	45	"Large"	Acute toxic hepatitis. (epival)
	J. C.	W. M.	55	1800	
	C. W.	W. M.	42	1800	
	A. H.	M. W.	60	1750	
	R. D.	M. B.	48	1100	Tubo-pancreas. Salivand Hg.
	J. B.	M. W.	45	2100	
	W. S.	M. W.	46	2930	
	N. H.	F. W.	34	2000	Alcohol
LAENNEC'S	F. S.	M. W.	43		
	M. R.	F. W.	60	1600	Focal
	T. J.	M. W.	62	260	
	O. G.	M. B.	40	850	
	F. B.	M. W.	58	800	Syphilis. Chronic P. C.
	A. L.	F. B.	35	850	Syphilis. Chronic P. C.
	G. L.	M. W.	64	925	Syphilitic aortitis
	W. M.	W. M.	60	1100	
BILIARY	C. W.	M. B.	7 mo.		Structure of common duct (cong)
	H. F.	M. W.	57	2300	B. Coli septicaemia Gall stones
	H. B.	M. W.	34		Suppuration
	P. O.	M. W.	74	1100	Gall-stones
ACUTE	E. G.	F. W.	34	625	Chronic background
	B. F.	F. B.	35	2100	Drug?
PIGMENT	L. K.	M. W.	50	4200	Hemochromatosis
SYPHILITIC	M. C.	M. B.	37	2200	Gumma present

The Required Preliminary Liver Damage

We decided from our studies that central necrosis was the required preliminary liver damage. This necrosis would have to be severe enough, however, to embrace a sufficient number of cells about the central vein so that a collapse of the lobule occurred. There would then follow a permanent change in the architecture of the lobule which would correspond to the diagnostic criteria for Laennec's cirrhosis as previously stated.

Histologic Changes in Central Necrosis

It would be of interest at this time to trace the changes in the liver which are brought about by central necrosis. We note that damage to the liver is very largely a parenchymal cell injury. This cell, by far the most vulnerable structure in this organ, is especially susceptible to necrosis. Two forms of injury—pressure and toxins—are commonly followed by death of the cells. Pressure necrosis is found in cardiac decompensation, biliary obstruction, and infectious biliary hepatitis. The cardiac type is wholly central while the others are peripheral. The sum total of the three, however, is negligible when compared with the toxic group.

Toxic cirrhosis, on the other hand, is very commonly found. It constitutes all but a fraction of hepatic injuries and even then may be a complication of the remainder. It is almost exclusively a central necrosis. While the process may extend to include the midzone and the periphery, for all practical purposes it might be considered primarily central. Toxic necrosis, then, appears to be the main form of liver response to injury, and, being central, makes necrosis of the center of the lobule the commonest form of pathologic change in the liver.

We note that this form of necrosis varies with the strength of the toxins and with the duration of their influence. Mild doses may kill only one or two cells at a time while more severe ones may cause necrosis of the central area or even of the central and midzonal. Very large doses can be seen at times to poison every cell in the lobule. The duration of the toxic action varies considerably. We see many cases that are acute, for example, acute yellow atrophy with a sudden onset and a rapid course. Again we have what we feel is a longer action of the poison in the subacute variety of yellow atrophy. How long this necrotizing dose of toxin might continue to act is hard to say. Some infections

of the available literature, very little said about the early stage, only one investigator, Mallory² making any mention of it. He states that a fine-to-coarse acidophilic reticulum in the cytoplasm of the parenchymal cells is characteristic and diagnostic, that it may be found before evidence of cirrhosis is present, and that the degenerative changes occur throughout the lobule but are usually most marked, at least in the early stages, around the central vein. This acidophilic reticulum is found as well in the periphery of the nodules. This idea of its importance is shared by very few investigators, Moon believing that it simply represents activity of the process rather than a diagnostic feature.

All other references state or infer that the diagnosis is not made until the nodules of regeneration have formed and that the activity of the disease is determined by the condition of the cells in the periphery of the nodules. Therefore, because of the paucity of data relating to the incipient or prenodular stage and because of the abundance of references to the later or nodular form, we are suspicious that there is no specific early stage and that the condition is not recognizable until the liver is damaged enough to be nodular.

Hence without a recognizable early stage one hesitates to believe that Laennec's cirrhosis is a specific disease entity.

Result of Any One or Any Combination of Lesions?

A certain number of writers today believe that Laennec's disease may follow any one or any combination of lesions. Mallory² states that pigment and healed yellow atrophy (central necrosis) very frequently are indistinguishable from "alcoholic" cirrhosis. These types then are potential cases of Laennec's disease. Observing his table (see accompanying Table I) we note these classes stand second and third in order of frequency, and added to the frank "alcoholic" represent a total of 365 out of the 550 cases of cirrhosis. Making a further correction by dropping the 104 not classified cases we have 365 out of a possible 446 (82%) either definitely or potentially of the Laennec type. Again disregarding the 270 that are positive Laennec's and the 104 that cannot be classified, we find that the pigment and healed yellow atrophy varieties constitute fifty-four per cent of the remainder. According to Mallory then, "alcoholic" cirrhosis may follow two different forms of cirrhosis and these two forms constitute

over fifty per cent of the primary cirrhotic states as tabulated.

Chapman³ says that atrophic cirrhosis with ascites represents a common end stage of any type of diffuse chronic degenerative or inflammatory lesions of the liver in which its structure is greatly injured or disorganized. He does not believe that it is necessarily a specific disease entity and says that it is well-established that diffuse hepatitis of almost any type may progress to cause portal obstruction and ascites.

Moon⁴ in an exhaustive review of experimental cirrhosis in relation to human cirrhosis, showed that a condition in animals, similar to Laennec's in man, could be produced by a number of inorganic chemicals, organic substances, serologic agents, and infections. Furthermore, in many instances combinations of agents were found more efficacious than either agent alone. He states it is admitted that congenital luetic cirrhosis may result in a form of cirrhosis resembling Laennec's.

Hence, from the opinion of several serious workers in this field, together with the evidence of experimental studies made on animals, we are led to believe that Laennec's cirrhosis can follow any liver lesion or any combination of liver lesions.

This was the belief of McCabe and Hart⁵ and our findings in the thirty-six cases here reported lead us to the same conclusions.

In Table II we have listed the cases as they were registered in the autopsy records. A perusal of this table brings out clearly the difficulties encountered in classifying any group of cirrhotic livers. As we have previously stated great confusion exists because of the degree and duration of the involvement and because of the large number of borderline and mixed types. It will also be noted that distinctions were not made on pathology alone, the clinical history assisting in many cases. This fact thereby favoring the multiple etiology of cirrhosis. It has been customary in our hospitals to use an arbitrary standard in registering Laennec's cirrhosis. Those livers that weigh over 1200 grams are called chronic hepatitis while those that fall below that figure are termed Laennec's disease.

Result of a New Set of Factors Becoming Active After Liver Damage?

The third consideration in our study involves the possibility that Laennec's disease is the result of new factors, primarily non-pathogenic, that have become perverted as the result of damage to the liver. If we

the surviving cells press against the folded and matted stroma of the collapsed sinusoids and have so adjusted themselves that groups of them are parallel to each other rather than in the normal radial arrangement.

Liver cell regeneration Corresponding with the removal of the necrotic cells, liver cell regeneration begins. This regeneration occurs exclusively at the periphery of the cords, proceeds rapidly, and grows toward the center of the lobule, pressing the uninjured cells of the cord down the trabeculae. There is an urge on the part of the liver to replace the cells that are lost and it is this urge misdirected by the abnormal position of the cords and stroma that produces the bizarre grouping of cells called nodules.

Circulatory changes The circulation of the lobule has taken on marked changes. Due to the collapse of many sinusoids the portal blood supply is lowered. A compensatory increase in the hepatic blood flow occurs and we find the hepatic artery radicles becoming the main blood supply to the newly formed nodules.

Connective tissue growth There is a negligible amount of new connective tissue found in central necrosis even after the nodules are well-established. Studies by MacCallum⁶ and Beaver and Robertson⁶ showed that this existing tissue was with little exception the original stroma.

Healed Stage

We now have a damaged liver with formation of nodules and a consequent change in the circulation. This stage is usually classified as healed toxic cirrhosis or healed yellow atrophy. Mallory considered this an end process and felt that it differed from progressive "alcoholic" cirrhosis. According to our accepted diagnostic criteria, however, healed toxic cirrhosis is indistinguishable from Laennec's cirrhosis. Toxic cirrhosis produces nodules and a change of architecture while Laennec's disease depends for its diagnosis on the same structural changes. Our studies lead us to believe that healed central necrosis, sometimes designated healed toxic cirrhosis, is the required preliminary damage to the liver in Laennec's cirrhosis.

Chronic Progressive Stage

Nevertheless, even if we accept toxic cirrhosis as the required preliminary damage to the liver, we must offer some explanation for its metamorphosis into chronic progressive cirrhosis. We must show some factor or factors that become active after

the original toxin has disappeared. Accordingly we note that either one or two factors may now add further injury to the damaged liver. An additional insult such as a return of the original toxin or the appearance of a new toxin, may occur, or, if no further scarring from toxins ensues, the time factor can come into play.

Precipitating factors Let us first consider the possibility of *additional insults*. Continued use of arsenic or cinchophen after clinical signs of liver damage is evident

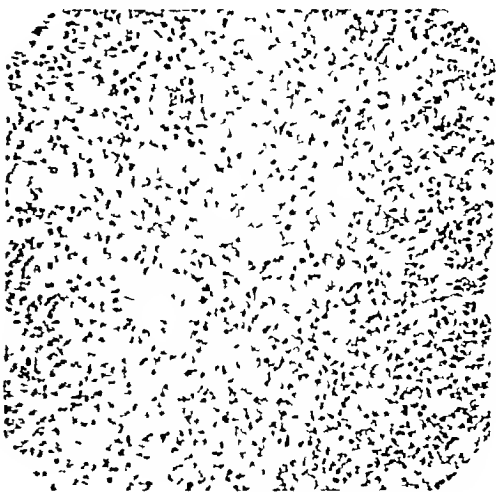


Fig 3 Early central degeneration of the lobule in a case of biliary cirrhosis. This shows the possibility of central necrosis occurring in cases of biliary cirrhosis.



Fig 4 Early peripheral degeneration of a nodule, showing parenchymatous degeneration of the hepatic cells with infiltration by polymuclear cells and fibroblasts.



Fig 1 Biliary cirrhosis

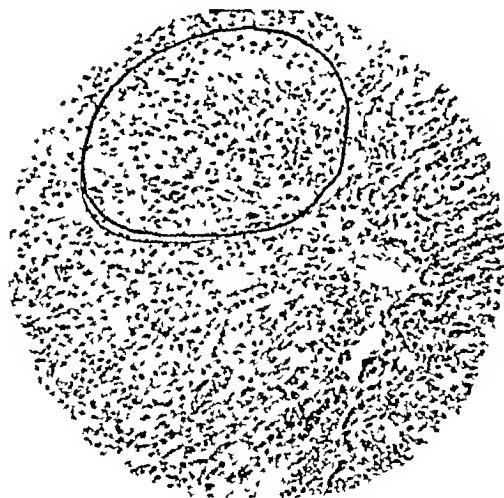


Fig 2. Early distortion of the architectural pattern of the lobule illustrating the transition of the lobule to nodule. The central vein is displaced towards the periphery and the radial arrangement of the cords is fairly well preserved. In the circle are two areas of the periphery showing a tendency to nodule formation in contrast to the radial arrangement seen in the remainder of the lobule

which at times are known to produce hepatic necrosis, such as scarlet fever, run three to four weeks of active infection. Arsenic and cinchophen at times may produce acute yellow atrophy and at others the subacute form with apparently the same dose. Even though these drugs may be given over a long period, there is great uncertainty when they will act on the liver, for they will cause the acute form as quickly as the subacute after long continued administra-

tion. Most hepatotoxic substances act with the same questionable outcome. Experimental work on rabbits however, shows a definite relationship between the size of the dose and the length of time it is given. It has been confirmed many times that sublethal doses of hepatotoxic substances, if repeated in rabbits, lead to subacute toxic hepatitis and then to full-blown cases of cirrhosis.

We further noted that the combination of two or more mild toxins acting in unison on the liver often produced hepatic necrosis. Likewise the combination of mild pressure and mild toxins as well as the superimposing of either mild pressure or a mild toxin on a previously damaged liver brought about central necrosis. Such combinations are well-known in experimental hepatitis and are frequently quoted in clinical literature, but it would seem that insufficient emphasis is given to them for the part they play in producing parenchymal cell death.

Repair Following Central Necrosis

Removal of dead cells About seven to ten days after the injury the dead cells are removed. The polymorphous and endothelial leukocytes acting as phagocytes clean up the debris. As the liver has peculiar healing methods, no new cells are found at the place of necrosis to replace the ones lost. Likewise a negligible amount of connective tissue is thrown out at this place to form scar tissue. Hence the space left by the removal of the necrosed cells makes little or no effort to fill up.

Collapse of the lobule After the debris is cleared away, especially where a group of cells is affected, the delicately supported lobule, unable to withstand the surrounding pressure, collapses. As toxic necrosis is primarily central, this collapse invariably occurs at the central vein. In the more severe cases, most of the lobule may be involved and even the whole structure may be disorganized. This collapse of the lobule marks an important step in the histogenesis of Laennec's cirrhosis. Such a collapsed lobule probably never straightens itself out. Instead it thereby initiates the change in architecture that is so essential to the diagnosis.

Let us briefly describe the appearance of the lobule after the collapse has occurred. It has become smaller than normal. The central vein is usually pushed to one side, the distance being greatest in the severe cases. All but a few sinusoids have collapsed, and these are quite engorged with blood. The remaining portions of the hepatic cords have moved centrally so that

the surviving cells press against the folded and matted stroma of the collapsed sinusoids and have so adjusted themselves that groups of them are parallel to each other rather than in the normal radial arrangement

Liver cell regeneration Corresponding with the removal of the necrotic cells, liver cell regeneration begins. This regeneration occurs exclusively at the periphery of the cords, proceeds rapidly, and grows toward the center of the lobule pressing the uninjured cells of the cord down the trabeculae. There is an urge on the part of the liver to replace the cells that are lost and it is this urge misdirected by the abnormal position of the cords and stroma that produces the bizarre grouping of cells called nodules.

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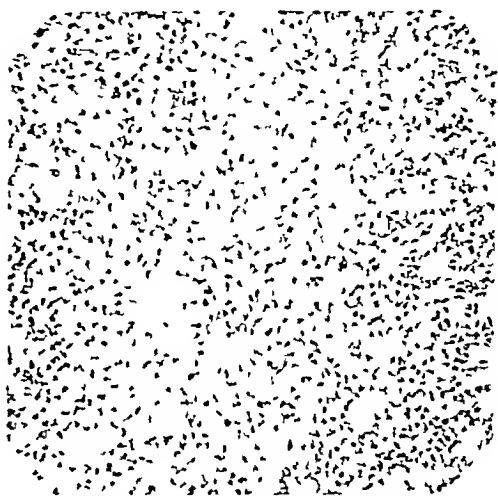


Fig 3 Early central degeneration of the lobule in a case of biliary cirrhosis. This shows the possibility of central necrosis occurring in cases of biliary cirrhosis.



Fig 4 Early peripheral degeneration of a nodule, showing parenchymatous degeneration of the hepatic cells with infiltration by polynuclear cells and fibroblasts.

has been frequently quoted in the literature as a reason for toxic cirrhosis. Likewise renewing treatment in susceptible subjects is a well-known cause of subacute yellow atrophy. Again a different type of insult may ensue such as infectious hepatitis or bile-duct obstruction or even cardiac decompensation. Respiratory infections undoubtedly play a part. Some of these insults may be quite mild and not recognizable clinically. One must remember however, that it is generally accepted that hepatic toxins act with unusual severity on damaged livers. These cases of healed toxic cirrhosis that have escaped additional insults must confront the *time factor*. This is a variable but makes its appearance in the liver as a rule in the late forties or in the early fifties. We believe that it brings about changes in the liver, ordinarily of little significance, but markedly exaggerated when damage is present.

Shrinkage of the connective tissue If we take notice of the liver in the progressive stage of Laennec's cirrhosis we become aware of the activity of a number of non-toxic factors. The primary factor of the group is undoubtedly the shrinkage of the abnormally placed connective tissue. We are fully aware that shrinkage of the connective tissue occurs in injured livers. It seems to us that the activity depends largely on the degree of injury sustained. The greater the injury the greater the size and number of the nodules, and the more pronounced are the bands of collapsed stroma. In a number of our cases, recognizable severe hepatitis was followed shortly by advanced pathologic changes. We found the disease to move rapidly in continued or repeated injuries. Moon⁷ showed that in children it advanced very rapidly. Otherwise the progress of the disease took on a slow course.

By the connective tissue shrinkage important changes in the liver are brought about. The long held belief that it contracted down on the lobules and by pressure caused necrosis of the peripheral cells is now being discarded. We feel the same as Kelly,⁸ MacCallum,⁹ and Moon⁹ that the peripheral cells of the lobules or nodules showed no evidence of pressure atrophy, rather they were frequently large young healthy cells. Most of the evidence at hand points to the contraction being about the interlobular branches of the portal vein.

Change in the circulation As the shrinking connective tissue shuts down on the portal veins, the portal blood supply becomes gradually shut off. The hepatic artery radicles, probably because of their

thicker walls, are not affected. So we find a change in the ratio between the portal and the arterial blood supply. Normally the ratio is about seven parts of venous to three parts of arterial blood. Following a moderate case of toxic cirrhosis the ratio may be five to five and in the late cases of Laennec's disease, the supply may be almost entirely from the artery.

Change in the detoxifying function The change in the circulation within the liver is an important contributor to the progressive activity of Laennec's cirrhosis. Normally the parenchymal cells are bathed by the highly nutritive portal vein blood. As times goes on, however, more and more of them lose their connection with the portal vein and become dependent on the less nutritive hepatic artery blood.

By this change the nutrition of the parenchymal cell is altered. From our knowledge of the structure of the cell we would thereby expect a change in its functional ability. This can be shown to be true. It is not noticeable, however until the change has been great enough to pass the large safety reserve of the liver. Mann and his associates by means of an Eck fistula have shown that impairment of the circulation of the liver increases the effectiveness of many hepatic poisons in animals. They found that in dogs with Eck fistulas carbon tetrachloride was ten times as effective as similar doses in normals.

At this point we must give due consideration to the detoxifying function of the liver. It is undoubtedly one of the main functions of this organ and normally takes care of a large number of poisons that are either collected from the portal area or that get into the general blood system. We have just shown the change that comes in the detoxifying ability of the dog's liver following an Ecks fistula. We can see that the shutting off of the portal vein in man in cases of cirrhosis is a parallel condition. We are justified, then, in assuming that in cirrhosis the detoxifying function of the liver is lowered because the portal blood supply is below normal.

There is further evidence that the detoxifying ability of the liver is lowered in Laennec's cirrhosis. This evidence points toward a lowering of this function in some of the peripheral cells of the nodules. Turnbull and Worthington¹⁰ made serial sections of the nodules in this condition and concluded that circulatory conditions in the nodules tended toward inadequate nutrition in consequence of which the cells are susceptible to degeneration and fatty metamorphosis. They found that the nodules consisted of concentric rings of cell strands,

one or two cells wide, with intervening capillaries having their centers near the portal areas. They also noted that in the larger nodules the peripheral cells lacked all order and were served by branching capillaries usually tortuous, narrow, and difficult for the flow of blood. They saw many large cells in the nodules that gave positive evidence of fatty degeneration with Sudan III. There were in addition many cells transformed into signet ring forms and they found the cells furthest away from the center undergoing the greatest fatty metamorphosis. From this they concluded that the tendency to degeneration is expressed by a deficiency of large vessels and a faulty arrangement of the cell columns and capillaries in relation to those vessels.

Peripheral cell necrosis. The cell necrosis that occurs at the periphery of the nodule commonly found in active cirrhosis, is held by many to be the result of some infection. Inability to demonstrate bacteria in the liver, however, weakens this theory, while the fact that the liver is the detoxifying organ of the body gives weight to the theory that some toxin may be the cause. Furthermore an excess of toxin is the commonest form of liver injury, and expresses itself as an hepatic cell necrosis.

Assuming a toxin to be at fault we can accuse, as we have in the undamaged liver, a large variety of irritants singly or in multiple. We can also, with some rights, give consideration to the customary daily supply of toxins derived from the body metabolism. These endogenous by-products continue to be elaborated in the same quantities and strengths as when the liver was normal. At the same time the detoxifying function of the liver has been reduced to one half, one quarter or even one tenth of the normal. Hence the endogenous toxins automatically take on an exaggerated hepatotoxic role. Proof of this was presented by Mann when he showed a natural substance as protein to be detrimental to a dog's liver after an Ecks fistula, especially when there was no carbohydrate food given at the same time.

We agree with Moon⁹ that the cell injury preceded that of the neighborhood connective tissue reaction by some time. We feel that the presence of leukocytes may very well be attributed to the common occurrence of them in the liver following necrosis, and that the proliferation of the connective tissue cells is more than likely due to the stretching action following the influx of the leukocytes.

Parenchymal cell regeneration. Another important factor in the progressive stage of Laennec's cirrhosis is the liver's per-

sistent urge to keep up the original number of parenchymal cells. This urge is primal. It occurs even under the poorest conditions in the liver. Large healthy new cells are found in acute yellow atrophy, in the subacute form, in all stages of cirrhosis, and even in cancer. New cells are found at the periphery of the nodules in cirrhosis. It is our belief that these new cells follow in the same fashion as the new cells in the normal lobule, that is, they occur at the peripheral end of the cords. We also believe that they push the older cells toward the central vein as in the normal. But because the architecture in the lobule is abnormal, the older cells are pushed in abnormal directions governed by the amount of resistance. Conditions at times allow very large lobules to be formed. As the disease progresses, however, and the connective tissue becomes more constricted the regeneration is hampered and we now see the shrunken banded liver of the late stage.

Summary and Conclusions

After studying our cases we feel that Laennec's cirrhosis is not a specific disease entity. It seems to us that it could follow any one or any combination of liver damages provided necrosis of groups of parenchymal cells was followed by collapse of the lobule.

Because toxic cirrhosis usually causes a central necrosis with collapse of the lobule and permanent changes in the architecture, we feel that it is the common preliminary stage of Laennec's cirrhosis. Further evidence for this is that toxic cirrhosis constitutes by far the greatest group of acute liver lesions while Laennec's makes up the great majority of the chronic cases.

Finally we conclude that a group of factors, ordinarily nonpathogenic, become active months or even years after the liver is damaged and produces the later chronic progressive stage of Laennec's disease. We feel that the shrinkage of the abnormally situated connective tissue stroma is the initial factor in changing the healed toxic cirrhosis into the active progressive type. This in turn is a variable and is subject to a number of factors, chief of which are, the degree of injury sustained by the liver, the number of repeated insults, and the time factor.

Other nonpathogenic factors follow which assist in the progress of the condition. The changes in the circulation

from portal vein to hepatic artery supply, in association with the poor capillary bed in the nodules, leads to a lowering of the detoxifying threshold. Thereby a relative rise in the toxicity of the end products of the endogenous metabolism occurs which is followed by parenchymal necrosis. These dead cells acting as foreign bodies attract leukocytes which infiltrate about the necrotic areas causing edema and considerable stretching of the connective tissue. This in turn stimulates the neighborhood fibroblasts and new connective tissue is formed.

We believe then that Laennec's cirrhosis is the result of a group of factors, primarily nonpathogenic, which become

perverted after the liver has received a damage that causes the architecture on the lobules to be changed.

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References

- 1 Moon V H *Arch Path*, 18 381, 1934
- 2 Mallory, F B *New England J Med*, 206 1231, 1932
- 3 Chapman, C B, Snell, A M, and Rowntree L G *J.A.M.A.*, 100 1735 1933
- 4 McCabe, J and Hart, J I *J A M.A.*, 105 859, 1935
- 5 MacCallum, W G *J A M.A.*, 53 649 1904
- 6 Beaver, D C and Robertson, H E. *Am J Path* 7 237, 1931
- 7 Moon V H *Am J Dis Children*, 46 375, 1933
- 8 Kelly A O J *Am J M Sc* Vol 130, 1905
- 9 Moon, V H *Arch Path*, 13 691 1932
- 10 Turnbull, H M and Worthington, R *Arch Path Inst London Hosp* Vol 37 1908

THE DREAM COME TRUE

An American dental surgeon, who has returned to this country after six years' practice in Palestine, tells a story that illustrates the mixed character of the Jewish population there. Some represent the highest education and culture, others the opposite. The doctor was a member of the dental staff of a hospital supported by the Hadassah. As told in the *Dental Outlook*, the account runs:

A middle-aged sun-bronzed Jew appeared at the clinic accompanied by an eight-year-old boy. The child presented a very swollen face on which at the site of the swelling was painted a vivid six-pointed Jewish star. Examination discovered a badly broken down upper first molar

The history disclosed that the child had had this condition of swelling for several months. Questioning further disclosed that the father believing that evil spirits had entered his son, had all this time offered up special prayers to drive them out. Failing in that, he had painted the star on the cheek, in the hope that that would exorcise them away. But the spirits persisted in dominating his son more and more completely. For the past few days the child had been in such pain, that nobody of the household could sleep. Then in a dream, an angel appeared to the father and told him that only at the hospital could the youngster again be purified. A forceps performed that sacred rite.

IF YE HAVE HEARTS, PREPARE TO PEEL THEM NOW

Peeling a patient's heart—removing inflamed portions of the membrane which surrounds it—is no longer a rare operation, though it is infrequently required.

This was the comment the other day of the medical information bureau, New York Academy of Medicine on the report from Milan, Italy, of a case in which the pericardium, or heart membrane, was peeled because it was hardened and swollen. The heart was bared by cutting the chest.

"In certain cases of pericarditis the membrane may become calcified, interfering with heart function," the medical bureau explained. Pericardial peeling has been done now for ten years or more."

The Milan operation was performed by Dr. Aldo Defrise and his patient was a fifty-two-year-old workman, who was able to return to his occupation after fifteen days.

Lifting out the heart, the surgeon found an inflamed and hardened membrane and a layer of fat an inch thick. In an eighty-minute operation under general anesthesia, he peeled off the diseased membrane.

The pericardium, or "sac" in which the heart lies, has a double layer of tissue, it was explained, with a lubricating fluid between. In case of inflammation, adhesions may result and sometimes calcium deposit, restricting the normal heart action.

PSYCHIC STATES ASSOCIATED WITH HYPERGLYCEMIA

EUGENE N BOUDREAU, M D, *Syracuse*

Thus far there is a dearth of literature upon the causative association of psychoses with hyperglycemia. Of course it has long been observed that sudden stupors occur in frank conditions of diabetes mellitus or since the discovery of insulin, with hypoglycemic states associated with hyper-insulinism. But thus far there have appeared in the literature few reports of cases of borderline diabetes or unsuspected cases of hyperglycemia and definite psychotic manifestations of either brief or prolonged duration which disappears with proper insulin-carbohydrate regime. My purpose in this contribution is to call attention to the probability of the fairly frequent occurrence of such states which may have a fatal issue unless recognized, which seem to be due to inadequate sugar metabolism or possibly combined with an inability of the kidneys to eliminate the products of a moderate inadequacy of sugar metabolism in some as yet unexplained pathological physiology.

For the present I can hope only to further arouse a medical interest and awareness of a problem by reporting three cases that have come under my observation, and by comments call attention perhaps to some aspects of them that need further understanding or definition. Additionally the prompt response of the conditions exemplified by these cases to insulin and regulated carbohydrate intake indicates a causative relation of the hyperglycemia and the psychotic state.

Let me, however, first refer briefly to the previous literature which has a relation to this matter. The first article which can be found bearing upon this subject was by Bond¹ in 1895. He noted the infrequency of glycosuria in older established cases of insanity. He gave results of urine studies in 175 recent admissions. Of these, twelve showed a glycosuria and most of these none of the chief signs of diabetes. Significantly he stated in this brief report, "In two melan-

cholia who recovered the improvement in their mental condition was coincident with the gradual disappearance of glycosuria." The next was by Hyslop² in 1907. In his article Hyslop refers to a paper read by Savage before the Medical Society of London in 1890, but apparently not published. Savage reported that in his observations, diabetes and insanity may alternate in families. One generation may be diabetic and the succeeding one insane and vice versa. He also reported that in individuals diabetes may give way to melancholia, to be again followed by diabetes. He referred to ten of his own patients who were diabetic and insane and confined at Bethlem.

Hyslop in his article also reported his own observations and then classified such related cases as follows:

- 1 Alternating types—cases of melancholia in which diabetes is an incident, and cases of diabetes in which melancholia is an incident

- 2 Dementia in relation to diabetes succeeding repeated psychic shocks, albuminuria, vascular degeneration, and renal disease

- 3 A type simulating general paralysis of the insane

- 4 Cases in which the metabolic defects are attended by confusion of the mental faculties and delusions

- 5 One case which presented a clinical picture of pseudotabes

- 6 Mania with temporary glycosuria

- 7 A psychopathic temperament in the offspring of a diabetic parent

- 8 Cases in which paralyzes are a prelude to diabetic uremia and coma.

Nothing further appeared in the literature until 1917 when Singer³ published his paper. He stated in substance that there is no characteristic mental picture associated with diabetes mellitus and also called attention to the fact that the type of mental state common to "brain intoxications" of all kinds is the so-called toxic hallucinosis "with which may be asso-

*Read at the Annual Meeting of the Medical Society of the State of New York
Rochester, May 26, 1937*

ciated clouding of consciousness" He also presented reports of two cases which tended to show that with a diminution of glycosuria there was an appearance of toxic symptoms He likewise noted increasing evidence of parenchymatous changes in the kidneys in one of his cases Apologetically he commented that no blood chemistry studies were made in his cases Parenthetically I may say here that these two cases may have been similar in type to the cases I am reporting

In 1921, Pike⁴ presented a case illustrating the etiological relation of glycosuria (he presented only urinary findings) to a case of depression

Katz⁵ (1934) presented a case before the New York Academy of Medicine in which a catatonic syndrome appeared in a young woman with diabetes which cleared away as the diabetes was controlled by a proper carbohydrate, fat, and insulin balance She was discharged as cured

At the same meeting Harris⁶ discussing the "Metabolic Considerations Regarding Diabetic Psychoses," pointed out the ability of the brain to utilize carbohydrates and that it used this source mainly for its needs On this basis he was disinclined to believe that a psychosis could be caused by mild conditions of diabetes or hyperglycemia although he was willing to admit that they might occur in longstanding diabetic states of severe character or degree In such instances his thought was that the by-products of the disturbed physiology in such a person accounted in part for the mental disorder

Dr Cheney in discussing both of the papers pointed out the possible relationship between the acute onset of the stuporous state and the emotional reactions of having seen an exciting movie a few hours before He stated also the belief in the infrequent appearance of mental disorders caused by hyperglycemia He said on that occasion that he did not think there is at present a characteristic diabetic psychosis

In 1935, Menninger⁷ presented a complete analysis of the subject with illustrative cases which has illuminated it more thoroughly than any discussion previously appearing in the literature In his series of cases, thirty were of mental

disorders associated with diabetes Of these, three were classed as mental disorders caused by diabetes and were similar to those here presented

Therefore, in summing up the literature published in English there appears, so far as I could find, nine previous cases in which there seems justifiable causal relationship between diabetes and abnormal psychic states To these I would add three

The first two have been previously reported between 1933 and 1934 before local medical groups The third has not been reported before This case, I regret, has inadequate data because of the difficulties surrounding its study

CASE 1 Mrs E M P, aged fifty-three, married Her father and mother both died of diabetes According to her statement, the members of her family were excessive eaters She was the only survivor of four children, the other three having died in childhood An uncle on her father's side died of paresis She was a pampered child, at the age of twelve she had acute chorea, and never returned to school She lived at home until her marriage at the age of thirty-one Relative to personality traits, she was happy, sunny, alert, and efficient Her married life was happy, but she had no children At the age of thirty-eight, in 1916, she had developed diabetes From 1929, it had been noticed that she was not mentally up to normal, this was most noticeable in a lack of ability to concentrate and a tendency to change abruptly from one task to another In July 1931, she had suffered from uterine hemorrhages, and had been sent to a general hospital in her home city for x-ray treatment to control the condition She had become extremely cross and irritable, so that it was difficult to keep nurses in attendance On August 3, after her return home, she suffered a spasm of the left face, and following this showed a mild paresis of the left arm and hand She became restless and confused, she was in bed three weeks, during which time she was depressed and developed delusional ideas relative to her husband and her nurse This state continued, with moderate remissions, to November, when there was a more pronounced remission, and she was again able to drive her car when accompanied by her husband On Thanksgiving Day, however, she again began to be more restless, depressed, and emotional, with no apparent reason, and was somewhat disoriented with regard to persons and places She was referred to Twin Elms by her physician, Dr

D D O'Brien, on December 1 The physicians certificate describes her condition at that time as follows

She is not acutely ill, is sitting restlessly in a chair. Eyes show slight irregularity of the pupils, both react normally, movements normal. Face normal, cranials negative, heart normal, blood pressure 185/90, lungs normal, abdomen, pronounced visceroptosis. Deep reflexes right normal, left hyperactive, slight ankle clonus, no Babinski. Suggestive weakness of left hand and leg, slight drag of the leg (cooperation poor). Pulse 98, temperature 98° F, respiration 24

Crying almost constantly, confused, apprehensive, clouded, very restless, depressed, disoriented, seems under great mental tension and fear, slight agitation. Inclined to be a little resistive and disturbed. Completely out of contact with reality. Answers questions incompletely, irrelevantly, and erroneously. Wanders aimlessly if not watched, needs constant supervision, misidentifies people, accuses people of being mean to her, claims that those about her are assaulting her.

She said in the presence of the physician "I may as well give up, I don't see any chance of getting well. Believe me, your daughter is an awfully impertinent girl. Dr O'Brien brought me here because he said I wasn't worried. I am crying because I want to. I don't know why I'll see Dr G just as soon as I possibly can. I am 36 years old. I was born in '36, my husband is 37. Doctor, I've certainly been very unhappy." [Report by] L.J.B.

After admission the patient continued in the same toxic, confused mental state. The physical signs were as noted above, except that the blood pressure once reached 210/98. Laboratory reports, under date of December 2, were as follows

N.P.N. 38 mgs per 100 c.c. of blood
Blood sugar 250 mgs per 100 c.c. of blood.
Urine clear, amber, acid, 1025, albumen 3, sugar 2, rare hyaline casts
Blood Wassermann negative with both antigens

As the ordinary dietary measures and the usual amount of insulin, which were employed at first, proved inadequate to correct the metabolic defect, Dr William A Groat was called in consultation (December 9). He increased the insulin to 110 units per twenty-four hours, and suggested an increase in carbohydrate intake. Under this regime the sugar, diacetic acid, and acetone disappeared from the urine in a predominant number of specimens (the urine was examined three times daily). The patient's mental state continued with little change until December 18, when there followed an improvement which progressed slowly for another period of three weeks. Finally after January 1, 1932, the improvement became more rapid, and the patient

was discharged on January 10. At that time she was entirely clear mentally, and had apparently nearly reached a normal level of mental state. The neurological signs had likewise disappeared. The patient returned to her home, accompanied by a nurse, and there her condition continued satisfactory.

To the time of her death from pneumonia, she remained in a normal state, by following the prescribed diet and using moderate amounts of insulin.

CASE 2 Mrs A.L., aged sixty-five, widow, was born in the United States of cultured parents. Married, widowed, no children. Fractured right arm twenty-three years ago. Had a lump removed from the left breast ten years ago. Had a "mild diabetes" for four years previous to the present illness. She had been an active, competent person, supporting herself during widowhood in a business position. For diversion, she continued an early interest in classic literature.

Family history. Father died at 63, collapsed during an operation for stone in the bladder. Mother, who had been diabetic for four years, died of pneumonia in 1931, aged eighty-four. Three brothers living and well, one of these, however, showed evidences of diabetes three years previously. One brother was murdered by highwaymen many years ago. One sister living, very deaf since a fall from a street car many years ago.

Present illness. On October 11, 1931, the patient fell upon the street, fracturing the neck of the left femur. She was taken immediately to the Syracuse Memorial Hospital, where a plaster-of-Paris cast was applied. She endured the misery of confinement serenely and optimistically for weeks, or until about time for removal of the cast, diverting herself by continual reading and embroidering.

At the beginning, because of the "mild diabetic state," she was cautiously dieted. After October 13, she excreted no sugar in the urine (Table I). On January 26, 1932, the nurses' notes state that she was "a little irrational," and on January 30, that she "was moving about restlessly, regardless of the injured leg." The cast was removed on February 1, the nurses noting that she was "crying, removing the bed clothes, asking for her mother, restless, and would not eat." The writer saw her, in consultation with Dr R L Leverton, on February 4. She was then in a deep stupor. The note made at that time in her hospital record reads as follows: "The history here obtained by close questioning is of the rapid onset of a mental clouding which has progressed

to complete stupor" There were no abnormal neurological findings. A toxic state was suspected, and further blood chemistry studies suggested. The subsequent laboratory picture also is shown in Table II. It will be noted that on February 4, although there was no sugar in the urine, the blood sugar was 234 mgs to 100 cc of blood. Five

again asked to see her, as the clouded mental state had recurred and she had become so stuporous that no food could be given in the ordinary manner. Gavage was resorted to, of a prescribed diet. With each feeding twenty units of insulin were administered. After this, consciousness returned shortly and she soon began taking food voluntarily. Insulin was then given as follows: February 25, units 20, 10, 20, increased on February 27 to 20, 15, 20.

On March 3, the patient was admitted to Twin Elms on voluntary application, on account of her physically crippled state and because an occasional moment of mild confusion had been noted. She also was in a very uncomfortable state of physical restlessness. This was soon relieved by hydrotherapy, and she rapidly returned to a normal state. In the weeks that intervened before her discharge on May 31, she learned to use first crutches and then a cane, and afterward made the journey to her brother's home in the South unaccompanied. After that time she had remained normal mentally, although she was obliged to undergo an operation, a breast amputation, on a moderate food and insulin regime. She finally died of carcinoma.

CASE 3 Mrs. R.A., aged sixty-two, Jewish, married, was first seen at Crouse Irving Hospital with Dr. Burton Doust, October 20, 1935.

Family history Negative for mental diseases.

Past history A hysterectomy done twenty years previously. Suffered a facial paralysis seven years previously, but fully recovered. Was always "nervous" and had a "bad throat." She had had sugar in the urine for three or four years.

Present illness began in April 1935. She became nervous, lost weight, had a cough that lasted three weeks, a heavy feeling in the lower axilla, pain in the back and neck, weak and tired all of the time, and mentally depressed. However, she continued at home until October 8, twelve days before I saw her. She had been admitted for physical checkup.

The physical examination by Dr. Doust on admission to the hospital was reported as follows:

Blood pressure 190/90 Temperature 99
Pulse 88 Weight 120 lbs Heart enlarged to the left. Sounds of fair quality. There were fine crackling rales at both apices. No dullness nor bronchial breathing. Abdomen negative.

I was requested to see her because of the recent onset of disordered behavior. She had become confused and hard to manage.

TABLE I—CASE 2

Date	React	Sp. Grav.	Alb.	Sug.	Acet.	Insulin used and remarks
Oct. 11, 1931	acid	35	1	5	0	Few pus cells.
" 13	acid	37	2	2	2	
" 15				2	0?	
" 16				2	1	
" 17				1	1	
" 18				0	1	
Nov 27				0	0	
" 27				1	0	
" 30				0	0	
Dec 3				0	0	
to Jan. 20, 1932				0	0	Patient a little ir- rational. Moves about regardless of leg.
Feb 1						Cries, removes bed- clothes, asks for mother, restless, not eating.

TABLE II—CASE 2

Date	Sp. Grav.	Alb.	Sug.	Acet.	Bl. Sug.	Insulin used and remarks
Feb. 4, 1932						
" 5			0	0	234	Units 5 t. i. d. First
" 6			0	0	215	seen by writer
" 8			0	0	256	Units 10, t. i. d.
" 9			0	0	167	
" 10					182	Relapse followed by rapid improvement on forced feeding and insulin.
" 11					175	
" 13					191	C 120, P 60 F 100
" 16					233	Units 10 a. c.
" 18					250	Units P C as needed.
" 19						Nasal feedings, units 1
" 22						20 with each one.
" 23						Units 20 — 10 — 20
" 25						Units 20 — 15 — 20
" 26 1 030	1	2	0			
" 27 1 016	1	1	0			
" 28 1 015	1	0	0			
" 29 1 018	1	1	0			
Mar 1 1 015	1	1	0			
Apr 2						
Apr 8					235	Units 20 — 15 — 20
Apr 17					165	
Apr 24						
to May 31						Sugar estimations made each week were within normal range.

units insulin, t i d was increased to ten units t i d. As the blood sugar decreased, there was a parallel improvement in the mental state, but the patient developed a moderate respiratory infection and showed elevation of temperature for several days. She was seen by Dr. W. A. Groat on February 17, who suggested a dietary regime of C-120, P-60 and F-100. On February 19, Dr. Groat and the writer were

in a general hospital. She had to be constantly attended because she continually tried to get out of the room, apparently seeking to get home, although she did not know where she was. Now and then she was noisy. On the 18th, two days previously, she showed slight elevation of temperature following a clysis, but this quickly subsided. Following this she had shown some moisture in her lungs for two days, but on the morning of my examination this had gone and her general physical signs were normal.

My neurological examination was negative. Mentally she showed no trends nor hallucinatory evidences, but was quite completely disoriented in all spheres. She was restless, talked of wanting to get out of the place and go home.

The laboratory findings up to that time and subsequently, showed abnormalities only in the urine and blood as follows:

Urine October 9 to 25 showed sugar reduction varying from 3+ to 5+. Specific gravity up to 1030. Frequently there was a trace of albumen. Acetone rare.

Blood Sugar October 9, 266, October 18, 266, October 21, 381.

After I saw her, Dr W A Groat was called in to advise upon dietary and insulin schedule. There was considerable difficulty in following this because she resisted food. However, this was managed sufficiently well so that by October 26 she was permitted to go home, improved but still clouded. At intervals from then she was cared for by Dr Leon Goldstein who was given charge in the absence of the other physicians. Her mental state rapidly cleared and remained so through the succeeding months to her death of pulmonary tuberculosis, November 2, 1936.

Laboratory reports continued to show presence of sugar in the urine from 1+ to 4+. Blood sugar on December 15, 1935, was 194 mgs. There were no laboratory reports after that date.

By way of comment, I would say that these three cases I believe carry further strong evidence that severe and prolonged psychotic states of potentially fatal outcome are associated with defects in sugar metabolism and hyperglycemia. These psychotic states may appear when there is no glycosuria present, and seem perhaps to be related to defects in the functioning of the kidneys. These abnormal mental states are toxic in type, and conclusively disappear with the removal of the hyperglycemia.

Aside from the positive conclusion just drawn there are additional unexplained

conditions that can be pointed out as we consider these cases. I can venture no explanations myself, but leave them for the physiologist or the physiological chemist.

Therefore, these questions can be raised to be later adequately explained.

1 Why should one person with only slight evidence of hyperglycemia or a hyperglycemia of a relatively moderate degree suddenly present toxic mental symptoms lasting over a protracted period and yet another person showing a hyperglycemia amounting to three, four, or even five hundred mgs of blood sugar in a hundred cc of blood show none?

2 Can we not raise the question of whether in some cases of hyperglycemia there are other associated toxic substances present, but not shown by present laboratory methods, or that are not present in all cases of hyperglycemia? Or perhaps it could be put in another way—may not other substances than sugars produce reduction in our present reducing method for the detection of sugars?

3 If so, what is the character of such substances that may so change the normal physiological cerebral processes as to produce the reactions exemplified in these three cases?

4 Can there be any correlation between the physiological conditions here exemplified and the physiological conditions of profound hyperinsulinism currently used to combat mental disorders?

5 Does the hyperglycemia produce a changed osmotic relationship and a hyperconcentration of water in the nervous elements?

6 In the study of future cases, should not these following relationships be correlated: intake of fluids and output of urine, blood concentration, ratio of sugar and NPN in the blood, blood cell relationship and character, and respiratory quotients?

Summary

Abnormal mental conditions have long been noted in connection with diabetic or hyperglycemic states. Nine cases apparently causally related to hyperglycemia have been collected from the literature. One of the writers has called attention to the appearance of a toxic mental state associated with a diminishing glycosuria, and observed some associated parenchymatous kidney damage in one of his cases.

The three cases here added illustrate a toxic mental state or state of mental confusion, associated with a hyperglycemia.

All of the cases recovered from the mental condition when the hyperglycemia was removed. Case 1 showed additionally delusions and focal neurological signs. This case also showed glycosuria during the psychosis, but in Case 2, glycosuria was rare. Each case showed kidney impairment.

Whatever the physiological explanation of these states may be, it is apparent that severe mental disorders, possibly progressing to a fatal outcome, may occur in moderate diabetic conditions without the presence of sugar in the urine. Careful laboratory investigations reveal the source of the disaster, and the administration of larger quantities of carbohydrates, together with the necessary amounts of insulin to assure their metabolism, removes the causative agents. It is therefore, important to be on the alert to recognize these conditions as otherwise many of them may escape detection with a resulting fatal issue.

Conclusions

1 Hyperglycemia over a comparatively short period may be followed by a prolonged clouded mental state, with or

without delusions. This state has the qualities of a psychosis.

2 Hyperglycemia and an associated acidosis or ketosis may be present and produce such mental states without the urinary findings giving evidence of the hyperglycemic condition. Blood sugar, however, is high. In such cases the other urinary findings suggest kidney damage, and possibly an elevated kidney threshold for sugar.

3 Such "toxic" mental states seem to be independent of personality traits or inherent family tendencies, and to be caused by a state of hyperglycemia.

4 These mental disorders promptly respond to removal of the hyperglycemia by the administration of insulin and a proper dietary regime.

PHYSICIANS' BLDG.

References

- 1 Bond, C. H. *British Med Jour*, 11, p 777, September 28, 1895.
- 2 Hyslop, Theo. B. *The Practitioner* 79 76, 1907.
- 3 Singer, H. Douglas. *Jour of Nerv and Ment Dis*, 46 421, 1917.
- 4 Pike, H. V. *J A M A* 76 1571, 1921.
- 5 Katz, S. E. *Arch of Neur and Psych*, 31 880, 1934.
- 6 Harris, M. M. *Ibid* 31 880, 1934.
- 7 Menninger, William C. *Jour of Ment Sci*, 81 332, 1935.

Discussion

DR A. G. ODELL, *Clifton Springs*—Dr Boudreau's paper sets before us some interesting questions and opens a field deserving of further study.

In the three cases presented, one common condition seems to be present—all were toxic from some cause. Dr Boudreau feels that a hyperglycemia was the sole cause of the toxicity in each. Yet in all three, there were evidences of damaged renal function, aside from the presence or absence of a glycosuria. One must keep in mind that glycosuria is not an evidence of damaged kidney structure, but rather an evidence that the sugar has risen above the threshold of the blood and is spilling over into the urine. It is an evidence of an inability of the body to utilize properly the amount of carbohydrate taken by the individual. It should also be kept in mind that the internist sees many persons with a marked hyperglycemia and no glycosuria.

In the first case a definite cerebral accident occurred and all three seem to show more or less arteriosclerosis. Does he feel that the relation of impaired renal function, damaged cerebral structure and arteriosclerosis were thoroughly ruled out in each case?

Again no note was made as to the bromide content of the blood. Was it measured? One of the first things given by many physicians in cases of restlessness is bromide. A symptom of bromide intoxication is mental confusion. An increasing number of patients with mild confusional state have been coming to my attention with blood bromide ranging from 78 to 175 or more. They promptly clear up when put on an adequate amount of sodium chloride. Had any bromide been given his patients before he saw them? If so, how much and for how long?

Another point is the rarity of such states when compared to the great number of pre-diabetic and diabetic patients we see each year. From January 1, 1933 to May 20, 1937, there were admitted to the Clinic with which I am associated, a total of 242 patients in whom a diagnosis of hyperglycemia was made. This means that in this group of patients there appeared a temporary hyperglycemia, not severe enough to be called a true diabetes and one which yielded readily to a rearrangement of diet. Of these, thirty-one (12.8%) showed a neurologic or psychiatric condition. And of this thirty-one, only two had a psychosis—manic-de-

pressive psychosis accounted for one and catatonic precox the other. None of the thirty-one showed any confusional state. Apparently no connection between the hyperglycemia, the anxieties, depression, encephalitis, etc. was noted. The increase in blood sugar was picked up incidentally in the course of an examination which included a study of the blood sugar, urea nitrogen, and Wassermann reaction. This study now includes the bromide content. Comparatively few showed any continued glycosuria or in fact any glycosuria at all.

Of the hyperglycemics severe enough to be diagnosed diabetes mellitus, a total of 361 were admitted from January 1, 1935 to May 20, 1937. Of these, only three showed enough to warrant a diagnosis of a psychiatric condition—anxiety neurosis, neuropathic personality, and an agitated depression in a senile individual. Again no confusional states. Of course, this may be due to the fact that we admit no frank psychoses, but is it not strange that no mild confusional states should appear in these 603 patients? It would seem then that a confusional state directly due to a hyperglycemia is very rare, to say the least. Before hyperglycemia is indicted as the sole cause, every other possible source of toxicity should be ruled out of the picture.

Dr Boudreau has raised some interesting questions. Anent his first one, what causes the toxic state in uremia? Why does one person with a badly damaged kidney develop this state and another with almost exactly the same damage not develop uremia? Why does one woman develop a postpartum mental state and hundreds of other women do not? Why does one cardiac patient have the added burden of mental symptoms while others with the same condition do not? His question and these similar ones may sometime be found to have the same answer.

Is there some other reducing substance in the blood beside sugar? A biochemist just this morning made the statement that the newer methods measure sugar only and that if there was any question, a fermentation test similar to the urine fermentation test would settle the question.

If there are other toxic substances present and if these cause the mental state Dr Boudreau describes, why do so very few (only at best twelve reported cases) of the large number of hyperglycemic patients develop this state?

Suggestions were given as to certain blood studies to be included in the examination of psychotic patients. Should not bromide be added to the list? This question is asked because of the very free use of bromide in proprietary preparations (Nervine, Bromo-Seltzer and the like). All these are easily

obtained and too freely used by the general public.

The absence of urine sugar in the presence of a high blood sugar has already been discussed.

Much as I should like to agree with my friend, Dr Boudreau, I cannot feel that the hyperglycemia was the sole cause of the states described.

He has, however, given us something to think about and for which we should be on the lookout.

DR GEORGE E DANIELS, *New York City*—It has been a privilege to read and study Dr Boudreau's interesting communication and to have the opportunity of discussing a few of the stimulating questions which it raises. The paper is not only timely in inquiring into the still little understood relationship between carbohydrate metabolism and mental disease, but also in calling the profession's attention to a clinical entity which, if not recognized and properly treated, is likely to end in lethal issue. As Dr Boudreau points out, the literature is all too sparse in such case reports.

My own experience with the problem of diabetes and psychic states comes chiefly from an approach other than that furnished by patients encountered in mental hospitals. For the last two years some of my colleagues and I have had the opportunity of examining psychiatrically routine admissions to the Metabolism Ward and Out-Patient Department of the Presbyterian Hospital, New York City. The results of the first year's study have been published in a recent issue of the *American Journal of Psychiatry* (November 1936). In addition, I have seen cases of diabetes referred for consultation on specific psychiatric problems. I do not remember having seen just the type reported by Dr Boudreau which is of particular interest on account of the special toxic features.

Dr Boudreau raises the question of a characteristic mental picture in hyperglycemia and quotes several authorities who question whether any such has been discovered. My own impression coincides with this, and I am still looking for a clinical case whose psychic symptoms can be explained entirely on the basis of a high blood sugar. Various clinicians, as well as patients whom I have questioned, mention depression as the most frequent manifestation. Dr Boudreau has quoted pertinent literature on the subject of diabetes and melancholia, and it is of interest that two of his own cases showed depression as a prodromal symptom.

In twenty-three cases reported by me, ten had shown noticeable depressions associated with their diabetes. A striking finding in

five was that diabetes had been discovered during depressions reactive to the loss of a person to whom they had had a strong emotional attachment, or such a loss had occurred just prior to appearance of sugar and was of apparent significance for the depressive picture appearing during the disease. Fluctuations in the sugar level of diabetics from emotional causes is an established fact. In relation to psychoses associated with hyperglycemia, one must ask how much of the picture appearing is of emotional or psychic origin and even question how much the high sugar level causing the toxic feature may not have its source in a disturbed emotional life.

The case reported by Dr Katz and cited by Dr Boudreau illustrates how complicated such a problem is. I saw this case shortly after she was admitted to the Presbyterian Hospital. She presented the picture of an acute schizophrenic episode. A note by the internist who had followed the case for three years previous to admission laid stress on her marked feelings of inferiority and severe depressions over the problem of masturbation. He repeated the familiar statement regarding the rarity of psychic changes encountered from high blood sugar alone and considered the case a striking example of how a psychosis can disturb carbohydrate metabolism. Dr Cheney's remarks regarding the movie which the patient had attended were particularly pertinent in view of the fact that the subject of the picture, "When Life Begins," mobilized her fears of pregnancy to which she had been recently exposed. Every psychiatrist is acquainted with psychoses which have been precipitated during or immediately after attendance at the theatre.

I could not entirely agree, therefore, that psychotic pictures appearing with hyperglycemia are independent of personality traits even though the clinical picture gave evidence of toxemia.

I can do little more than raise further speculations concerning the far-reaching question which Dr Boudreau raises at the end of his paper. The question why some hyperglycemics show psychic manifestations and others do not, is especially interesting. Physicians who see diabetics in practice are more acquainted with mental changes in hypoglycemia or insulin "shock," and there is a question whether even at high sugar levels some of these shock-like reactions do not occur. Dr Boudreau's question of some special toxic substance in certain cases and the need of careful checks on kidney function are pertinent. The whole relation of the subject to current hyperglycemic therapy in schizophrenia is an inviting topic, the explanation of which faces both Psychiatry and Medicine as a challenge to a further understanding of the biologic basis of neurosis.

DR NOBLE R CHAMBERS, *Syracuse*—Dr Boudreau's presentation impresses me as being particularly important at this time when we are hearing so much of hypoglycemia and dementia precox. It is interesting to note that epilepsy is extremely rare in diabetics, in which, of course, we are dealing with hyperglycemia. Dr Joslyn once told me that epilepsy is almost unheard of in diabetics. Are blood sugar, ketogenic diet, restriction of fluids, water balance related? I am wondering whether the hyperglycemia described by Dr Boudreau could possibly be attributed to the emotional status of the patient and perhaps be the result rather than the cause of the psychosis. Unless I am mistaken blood studies in the so-called functional psychoses have failed to reveal any marked deviation from the normal. I think Dr Boudreau is to be congratulated for his presentation of three interesting cases in which, whether cause or result, hyperglycemia was associated with psychosis and apparently improved following attention to their hypoglycemia.

A WORD TO THE YOUNG DOCTOR

The young physician's career, especially in a small community, may be blighted for many years by the unfortunate outcome of a prominent case. The moral is that it is wise for the young and inexperienced man, especially the young surgeon, to avoid the heavy responsibility of a case in which the outlook is definitely bad. It is better to show caution and call in a more experienced man whose reputation can better stand the strain of a fatality. Do not hesitate to call for consultations. It is

not a sign of weakness or lack of courage, but is a sign of prudence and wisdom and often moral courage, which is appreciated by the laity. Never object to the calling of a consultant when asked for by the family, even when it seems entirely superfluous. Objection on the part of the attending doctor leads to all kinds of suspicions, and if matters take a turn for the worse later on, the objector is put in a very unfavorable light—*Lincoln Davis, M D, Boston*

CONGENITAL SYPHILIS

A Three Year Survey in Syracuse

C GEORGE MURDOCK, M D, *Syracuse*

The recent attacks on syphilis made by Dr Thomas Parran of the United States Public Health Service and by the New York State Department of Health have been most ably supported by the press and public opinion. It would, therefore, seem timely for us, as pediatricians, to review and perhaps renew interest in the role we may play in the onslaught upon this dread disease. The pediatrician only too frequently sees the ravages of syphilis in the newborn or small child which could have been prevented or lessened by the cooperation of the mother or of the obstetrician at the time of the mother's pregnancy. For practitioners in a field of medicine which is largely aimed at prevention, congenital syphilis offers a golden opportunity because here is a disease which could be almost totally eradicated. Let us strive then not only to treat and attempt cure in the already blighted child, but also by our associations, both public and professional, to encourage the diagnosis and treatment of prenatal syphilis. We have laws in this State regulating the transmission of most infectious diseases such as scarlet fever and diphtheria. Why not a law requiring routine Wassermann tests early in pregnancy and enforced treatment of all positive reactors during pregnancy?

Investigation into the medical literature in the preparation of this paper reveals the regrettable fact that there have been very few surveys made regarding the incidence of congenital syphilis. No figures are available on the incidence of this disease in the United States or foreign countries for the country as a whole. The United States Public Health Service Statistics and those published by the League of Nations give no separate figures for congenital syphilis. The studies which

have been made deal only with various hospitals, clinics or geographic subdivisions. Because we do not know how much congenital and prenatal syphilis exists and has existed, we are unable to determine our progress in the eradication of this disease. Most previous surveys have also tended to be misleading because they have covered, with few exceptions, only the lower social classes where the incidence of congenital syphilis would obviously be higher. They have not shown the incidence of this disease in the middle and upper social classes.

Table I shows the incidence of positive Wassermann reactions in pregnant mothers seen in the prenatal clinics of Syracuse for the past seven years. It is of significance to note that the percentage for 1936 is appreciably higher than that of any preceding year. A Wassermann is taken routinely on all patients admitted to these clinics.

In Table II the cases for the past three years with positive Wassermanns have been classified as to the presence or absence of the disease in their offspring. Unfortunately no follow-up work was done on the babies born before 1934 so that an analysis of the cases prior to this time was impossible.

The Wassermann reactions referred to in this and the following tables were taken on the babies three and six months after birth. Without exception, the cases that aborted, delivered still-births or delivered babies with congenital syphilis, were mothers who either refused treatment entirely, were not treated regularly during their pregnancy, or were not seen at the clinic until very late in their pregnancy. The group whose babies showed negative Wassermanns were mothers who had come to the clinics early and had received treatment regularly throughout their pregnancy. The group described as syphilitic babies were those that showed positive signs of syphilitic in-

I wish to thank the Bureau of Social Hygiene of the Syracuse Department of Health and the various private practitioners of Syracuse who have made the preparation of this material possible.¹

TABLE I—WOMEN HAVING WASSERMANN TESTS (PRENATAL CLINICS)

Year	Total	Positive		Suspicious	
		No	Per cent	No	Per cent
1930	414	16	3.9		
1931	568	21	3.7	4	0.7
1932	873	30	3.4	5	0.6
1933	958	34	3.5	3	0.3
1934	922	33	3.6	6	0.7
1935	759	27	3.6	4	0.5
1936	739	32	4.3	6	0.8
Total	5,233	193	3.7	28	0.6

TABLE II—RESULTS OF SYPHILITIC PREGNANCIES IN CLINIC CASES

Year	Total cases	Syphilitic cases	Mis-carriages	Still births	Syphilitic babies
1934	922	33	0	1	6
1935	759	27	1	1	1
1936	739	32	1	1	6
Total	2,420	92	1	3	13

Year	Positive Wassermanns	Negative Wassermanns	Unknown
1934	6	15	5
1935	6	14	4
1936	9	14	2
Total	21	43	11

TABLE III—RESULTS OF SYPHILITIC PREGNANCIES IN SPECIALISTS' CASES

Dr.	Total cases	Syphilitic cases	Mis-carriages	Still births	Syphilitic babies
A	807	2	0	0	0
B	629	3	0	0	0
C	563	4	1	1	0
D	423	2	0	0	0
E	360	3	0	0	0
Total	2,782	14	1	1	0

Dr.	Positive Wassermanns	Negative Wassermanns	Routine Wassermanns on all maternity cases
A	2	0	Yes
B	0	3	Yes
C	1	1	Yes
D	0	2	Yes
E	3	0	Yes
Total	6	6	

fection, while the group described as having positive Wassermanns showed no positive physical signs but whose blood test was positive. The cases described as unknown were almost always the babies of mothers who either left the city before delivery or shortly afterward so that a check upon the babies was impossible.

Table III shows a similar analysis of cases treated by physicians specializing in obstetrics. This group necessarily comprises the upper social class. Since most

of these patients see their physicians early in pregnancy the syphilitic mothers were diagnosed early and treated thoroughly during their pregnancy. Consequently we find the babies at birth, with few exceptions, showing either negative

TABLE IV—RESULTS OF SYPHILITIC PREGNANCIES IN GENERAL PRACTITIONERS' CASES

Dr.	Total cases	Syphilitic cases	Mis-carriages	Still births	Syphilitic babies
A	125	2	0	0	0
B	297	3	0	1	1
C	150	3	0	0	1
D	252	12	1	2	1
E	298	0	0	0	0
F	160	3	0	1	1
G	270	1	0	0	0
H	268	6	0	1	1
I	360	4	0	0	0
J	47	0	0	0	0
Total	2,227	34	1	5	5

Dr.	Positive Wassermanns	Negative Wassermanns	Routine Wassermanns on all cases
A	0	2	Yes
B	0	2	Yes
C	1	1	Yes
D	2	6	Yes
E	0	0	Yes
F	0	1	Yes
G	0	1	No
H	4	0	No
I	1	3	No
J	0	0	No
Total	8	16	

TABLE V—PERCENTAGE OF SYPHILITIC PREGNANCIES IN VARIOUS GROUPS FOR THREE YEAR PERIOD (1934-1937)

Clinic	Total cases	Luetic cases	Per cent Luetic
General practitioner	2,420	92	3.8
Specialist	2,227	34	1.5
Total	7,429	140	1.8

TABLE VI—POSITIVE WASSERMANN TESTS IN OTHER CLINICS

Clinic	%
Munich Children's Clinic	2-3
Munich, Nuremberg Home	2
Breslau, University Children's Clinic	0.64
Berlin Nuremberg Home	1.2
Prague, Children's Clinic	2.2
Budapest University Children's Clinic	0.8
Zagreb, City Polyclinic	2.4
Paris Service de médecine de Maternité	2.5
Turin, Nuremberg Consultation Office	2.13
Chicago Memorial Hospital	3.3
St. Louis Hospitals and Polyclinics	
Lower strata of whites	2.0
Poorer strata of colored population	15.0
Upper social strata	
Kiel Pediatric Clinic	Below 1
New York City Sloan Hospital	1.96
Norfolk, Va. Children's Clinic	3.6
Lower strata of whites	7.04
Lower strata of colored population	15.47

Wassermanns or positive Wassermanns with no other signs or symptoms of syphilis. All the physicians in this group replied in the affirmative when asked if they took routine Wassermanns upon all their cases.

Table IV shows an analysis of maternity cases treated by general practitioners. It does not include all the general practitioners in Syracuse, but an effort was made to include those men doing the bulk of the obstetrical work. It is of interest to note here that four of the ten physicians reporting do not take routine Wassermanns upon their cases. We can surmise that more syphilitic cases might have been found if these physicians had taken routine Wassermanns.

Table V is an analysis of the percentage of syphilitic pregnancies in the various groups for a three year period from 1934 to 1937. As might be expected the clinic cases show the highest percentage. The incidence among the cases seen by the general practitioner is high enough to warrant the taking of routine Wassermanns, and the obstetrical specialist should not overlook the Wassermann test in the routine care of his patients.

Table VI is a compilation of studies made during the last two decades of the incidence of congenital syphilis in various

clinics and hospitals.²⁻⁵ It is again important to stress the fact that most of these figures were compiled from the lower strata and, with but few exceptions, no allowances made for miscarriages or stillbirths due to syphilis.

Summary

A survey of the City of Syracuse reveals a tendency to a higher incidence of congenital syphilis in the lower social strata.

Congenital syphilis is still to be found among the upper social strata.

Routine Wassermanns should be taken early on all pregnant mothers and vigorous antiluetic treatment instituted early by the attending obstetrician when indicated.

Infants born of syphilitic mothers should be frequently checked by physical examination and Wassermann tests for signs of the disease.

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References

- 1 Laurie, T. F. *NEW YORK STATE JOURNAL OF MEDICINE*, 37 280, 1937
- 2 Royster, L. T. *Am. Jour. of Syph* 5 131, 1921
- 3 Coler, E. S. *Ven. Dis. Inf.* 11 203, 1930
- 4 Rominger, E. and Szego, L. *Monatsschr. f. Kinderh.* 54 20, 1932
- 5 Macdonald, C. *Illinois Med Jour.*, 70 452, 1936

WARNING AGAINST MEDICAL STUDY IN EUROPE

American youths planning to study medicine in Europe were warned against enrolling in inferior continental schools by Dr. Lester Samuels, superintendent of the Van Wyck Hospital, Jamaica, upon his arrival home recently on the Queen Mary after a month in France and England.

Dr. Samuels was a delegate of the American Hospital Association to an international medical convention in Paris and also studied England's national health insurance plan in London, Manchester, and Leeds Hospitals.

Alarmed at the influx of Americans into her medical schools, England is cutting down the numbers of foreign students, Dr. Samuels declared.

"Many Americans, unable to gain admittance to American schools, have gone to England to study," the doctor said. "Now that English schools are closing their doors to foreigners, these students will go to inferior continental schools to study. This

is a grave error, for many of these schools do not give adequate training, approved by New York medical authorities, and as a result, graduates are barred from examination in this state."

As an example of England's new policy Dr. Samuels cited the Royal College of Surgeons, of which he is a graduate. The college in the past two years received 1,700 American applications, of which six were accepted. Other colleges have had an American enrollment of twenty to thirty per cent, he added.

The practice of established American doctors going to Europe to study also was deplored by Dr. Samuels, who holds American schools superior to any in Europe.

"We are ten years ahead of Europe in surgery," he said. "Many postgraduate schools in Europe are purely commercialized propositions. Our doctors will do better to stay at home and study at our excellent American schools."

CORONARY THROMBOSIS

Relationship to Thromboangitis Obliterans

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When one considers the fact that it is less than twenty years, since coronary thrombosis has been recognized as a distinct clinical and pathological entity, it is not surprising, that thromboangitis obliterans of the coronary arteries was not definitely proven histologically until 1936

It is true that in 1918 Levine and Tranter¹ published a report of two cases of coronary thrombosis, one of which, was diagnosed antemortem, and Pardee² in 1920 discovered the characteristic electrocardiographic changes following an attack of coronary closure, yet Sir James MacKenzie,³ in his last work on angina pectoris published in 1924, never made the clinical distinction between angina pectoris and coronary thrombosis

Buerger,⁴ in the same year, concluded that thromboangitis obliterans did not involve the blood vessels of the viscera, probably due to the fact that in all his five hundred cases, he had available only four autopsied—the remainder was largely limited to surgical specimens, either biopsies or amputations. These four autopsies revealed three with thrombosis of the visceral arteries—one with thrombosis of the left anterior descending coronary in a man, twenty-four years of age, in whom histologic studies established the presence of arteriosclerosis. It is an unusual age for arteriosclerosis and when one considers the fact that this young man suffered from thromboangitis obliterans of both lower extremities for four years, the association between both conditions takes on added significance

Perla,⁵ in 1925, reported a case of thrombosis of the left coronary artery in a forty-four year old male with an organized and canalized thrombus occluding this artery for a distance of 1.5 cm. Because these changes resembled those seen in thromboangitis obliterans of the extremities, he felt that the process must have been one and the same

In 1929, Allen and Willius,⁶ in a series of 225 patients with thromboangitis obliterans, at the Mayo Clinic, found only

seven of coronary artery disease, clinically diagnosed. They concluded the following "the incidence of disease of the coronary artery in this condition as it occurred in our experience is probably not materially greater than the association with other diseases in the same age group"

In the same year, Barron and Linenthal⁷ after a study of thirty-four cases of thromboangitis obliterans, twenty-seven of their own and seven from a review of the literature, arrived at the conclusion "that this disease is not confined to vessels of the extremities but is a generalized disease that may affect any part of the arterial tree, including the coronary arteries"

In 1930, Samuels and Feinberg,⁸ in a study of fifty cases of thromboangitis obliterans with reference to coronary artery involvement, found "that only five of these cases showed definite clinical and electrocardiographic evidence of myocardial damage—presumably due to coronary artery lesions"

In 1932, Brofeldt⁹ described a case of Buerger's disease in a man of sixty-five, where autopsy showed a thromboangitis obliterans of the abdominal aorta

In 1934, Averbruck and Silbert,¹⁰ while reporting the cause of death in forty-seven cases of thromboangitis obliterans, found that twenty-two died as a result of some visceral vascular accident. In thirteen, the diagnosis of disease, or thrombosis, of the coronary arteries was made during life, with five proven by autopsy. They conclude that "there is more than a casual association between sclerosis and thrombosis of the coronary artery, and thromboangitis obliterans of the vessels of the extremities". Yet, despite this observation, they go on to state "that as pathologic studies fail to establish the diagnosis of thromboangitis obliterans in the vessels of the thoracic and abdominal organs the acceptance of the occurrence of the disease in these organs for the time being must be presumptive". Therefore,

they find it difficult to agree with Barron and Linenthal's⁷ conclusions "that thromboangitis obliterans may involve any part of the arterial tree," contending that as yet there was no clear evidence for this view.

In 1935, Telford and Stopford¹¹ described thromboangitis obliterans of the coronaries in a twenty-six year old male. They did not, however, report sufficient histologic studies to make this diagnosis a certainty.

In 1936, Eppinger¹² reported a case of thromboangitis obliterans involving both lower extremities in a forty-three year old male with extensive distribution of the vascular lesions including the coronary arteries. Though he states "that on autopsy, the most unusual and remarkable finding was the thrombosis with canalization of the larger coronary arteries," he is nevertheless in doubt as to the true nature of the occluding process, because he subsequently states "that the tendency of these blood vessel lesions at certain stages of their development, to have histological as well as clinical similarities, makes the designation of a specific type a much mooted problem."

In the same year, Mallory¹³ published a case of acute thromboangitis obliterans of the coronary artery, proven histologically, in a fifty year old male, English-Irish parentage, with a history of Buerger's disease of two year's duration. He concludes "that thrombotic occlusion of visceral arteries occurs with too great frequency in this disease to be purely coincidental."

Some nine months later, Saphir,¹⁴ after detailed anatomic and histologic studies, reported a case of acute thromboangitis obliterans of the coronary arteries in a thirty-five year old male who was known to have the characteristic symptoms of Buerger's disease for a period of about six years.

Averbrück and Silbert¹⁰ found that 38.3 per cent of their series "died as a result of what can be suspected clinically to be disease of the coronary artery." The same authors also state that "Until the pathologic process of vascular disease in general receives more detailed description and classification, the diagnosis of thromboangitis obliterans in the visceral vessels will be a clinical achievement more

often than a pathologic one." This observation, I feel, justifies the recording of the following case of coronary thrombosis, proven clinically and electrocardiographically, in a man with thromboangitis obliterans of the vessels of the extremities of nine years duration.

Case Report

C S, a native born, chauffeur and mechanic, of Russian-Jewish parents, forty-three years of age entered the hospital complaining of a dull pain across the anterior chest with marked general asthenia, this pain was aggravated by exertion and was associated with a choking sensation with marked dyspnea. No cyanosis was present.

The family and marital history was irrelevant.

He smoked on the average of seventy to eighty cigarettes a day for a period of at least ten years prior to 1927, when he reduced the number to twenty-five to thirty a day. For the past five years he has been smoking only eight to ten cigarettes daily.

The patient's health was good until the Winter of 1927, when, on exposure, his feet were frostbitten. The left foot recovered quickly, but the right foot and leg remained rather cold, of a bluish color and the nails of the toes were turning dark, particularly the nail of the little toe, which became almost black. This process did not go to gangrene. At the same time he noticed cramps in the right leg on walking, intermittent claudication after one-quarter of a block, compelling him to stop and rest.

He sought relief in the various city hospitals and clinics, where his condition was diagnosed as rheumatism, and given baking, massage, and internal medication without any relief.

Early in 1931, because of the intermittent claudication, marked pallor, and coldness of the plantar aspect of the right foot, as well as absent pulsations of the dorsalis pedis artery of the same foot, with the following oscillometric readings taken at that time:

Right post. tibial	237—234,	Osc. reading	0.3
Left " "	308—234,	" "	74

the diagnosis of thromboangitis obliterans or Buerger's disease was made.

Treatment directed towards this condition resulted in improvement so that he could walk at times a distance of eight blocks before the pain in the right leg began.

On September 7, 1936, while sitting quietly outside his home, he was seized suddenly with a severe, excruciating pain across the lower part of his chest and sternum.

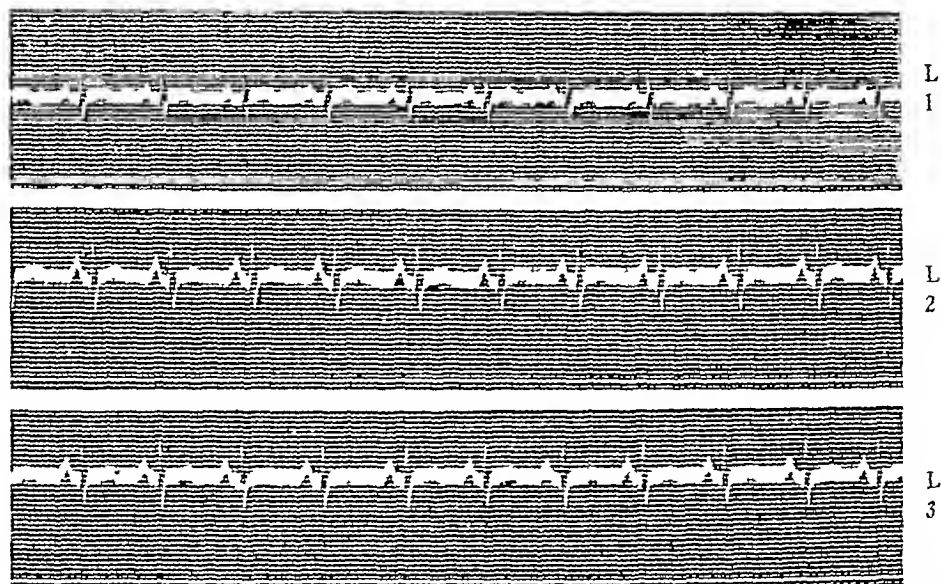


Fig 1 Electrocardiogram, Leads I, II, III Heart Rate ninety per minute, "QRS" complexes low, diphasic, and slurred, "S-T" intervals slightly raised and coved, showing acute myocardial infarction

This pain, despite medical attention, continued unabated for thirty-six hours. He remained at home for one week and was then admitted to the hospital September 14.

The physical examination was irrelevant except for the right leg which showed no pulsations in the popliteal, tibial or dorsalis pedis. A sufficient collateral circulation must have been established because gangrene was not present although the color was abnormal. On elevation, the right foot became extremely pale and when lowered, it required more than three minutes for the return of color. At the base of the little toe and on the lateral margin was a round depressed scar, two cm. in diameter, the result of a healed ulcer. Laboratory examinations showed that the blood chemistry, blood count, and urine were normal. The blood Wassermann was negative.

Because of the history of severe, excruciating, and continued substernal pain, not relieved by treatment, the diagnosis of coronary thrombosis was made and later confirmed by the electrocardiogram. The pericardial friction rub and leukocytosis which are found frequently twenty-four to forty-eight hours following a coronary accident were not present upon his admission to the hospital, one week after the attack.

An electrocardiogram (Fig 1) taken the day after admission showed diphasic and slightly slurred "QRS" complexes in all the three leads with coved and slightly raised "S-T" intervals in leads 1 and 2—though these findings were suggestive of coronary

occlusion, they were not typical. Later electrocardiograms (Fig 2-3) taken on the tenth and twenty-third days after the coronary accident, clearly showed coving and deep inversion of the "T" waves in leads 1 and 2—the typical and classical picture of coronary artery thrombosis, "T-1" type. (These findings illustrate the importance of serial electrocardiographic examinations, so that many apparently negative cardiogram would show physical coronary changes if the examinations were repeated.)

With sedation and rest, the patient recovered from this coronary attack and was discharged from the hospital forty days after admission.

In thromboangitis obliterans the following process takes place

- 1 Infiltration of the coats of the vessels and surrounding tissues by inflammatory cells
- 2 Occlusive thrombosis of the affected segment of the vessel
- 3 Formation of purulent foci within the clot.
- 4 Replacement of the leukocytic areas by "altered angioblasts" and giant cells
- 5 Propagation of the clot without specific characteristics
- 6 Organization with extensive recanalization.
- 7 The appearance of lymphocytes and hemosiderin-filled large mononuclears
- 8 Finally, an acellular, organized, canalized thrombus with perivascular fibrosis matting together arteries, veins, and nerves

Comment

The occurrence of two diseases in a

single individual is always interesting, especially when the two conditions are of such comparative recent clinical and pathological recognition as coronary thrombosis and thromboangitis obliterans. The increasing frequency with which the literature has been reporting the coincidental occurrence of the two diseases in the same patient may be regarded as strongly suggestive of their common etiological origin.

As yet, only two cases have been definitely proven histologically as those of thromboangitis obliterans of the coronaries. However, when we consider the fact that coronary sclerosis may be but an advanced stage (end result) of thromboangitis obliterans, because the characteristics of both have been proven histologically to exist in a single lesion,¹⁴ and when, in addition, we realize that the heart does not lend itself to biopsy or amputation as the extremities do, so that the coronary arteries can only be studied at autopsy when the end result has taken place, one is justified in the assumption that there is more than a coincidental relationship between coronary thrombosis and thromboangitis obliterans.

As for the true etiological factors involved in the production of thromboangitis obliterans, we are as much in the

dark today as we were in 1924, when Buerger⁴ published his book. He advanced the theory "that an infectious agent is in all probability responsible for the 'acute' or earliest lesions." He justified this reasoning by the fact that in the early or acute stage of thromboangitis obliterans certain purulent foci make their appearance. However, up to this writing, no one has succeeded in isolating the offending organism.

Tobacco unquestionably plays a very important part as a predisposing factor and the case herein reported would seem to bear this out—for the patient consumed the astounding number of seventy to eighty cigarettes daily for a period of ten years prior to the onset of intermittent claudication. Perhaps this would also explain the fact that in all of Buerger's 500 cases, only three were women—but the use of tobacco has greatly increased among the female sex and to date there has not been a corresponding increase in the number of Buerger's disease among them.

Similarly, coronary thrombosis is three to five times as frequent in the male as in the female—this despite the fact that hypertension, which is sometimes thought to be a predisposing factor in its production, is far more frequent in the female.¹⁵

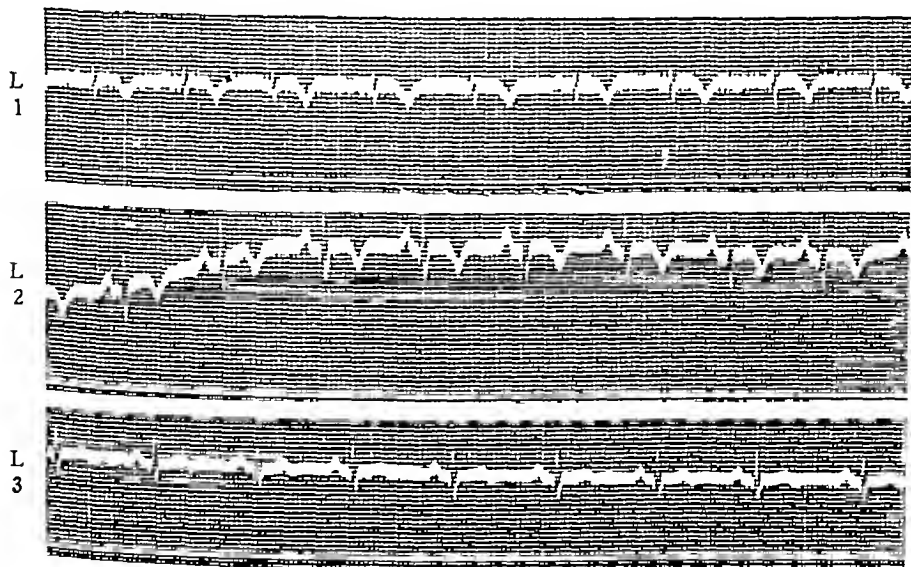


Fig 2 Electrocardiogram, ten days later, Leads I, II, III Heart Rate seventy-five per minute, "QRS" complexes diphasic, low, and slurred, "T" waves coved and deeply inverted in leads I and II, showing recent coronary artery thrombosis

Summary and Conclusions

1 Notwithstanding the extensive studies on coronary thrombosis and its relation to thromboangitis obliterans, it was not until 1936 that two cases were studied at autopsy and definitely proven histologically as cases of thromboangitis obliterans of the coronary arteries^{18 14}

2 There is a definite relationship between coronary thrombosis and thromboangitis obliterans

3 Buerger's conclusion that thromboangitis obliterans did not involve the

blood vessels of the viscera has been definitely disproven histologically

4 The probability is that at least one in every three individuals suffering from thromboangitis obliterans of the extremities has some coronary pathology, and one out of every two will die of a visceral vascular accident⁴

5 This report adds another case to the literature of coronary thrombosis, proven clinically and electrocardiographically, in a patient with thromboangitis obliterans of the right lower extremity

115 EASTERN PARKWAY

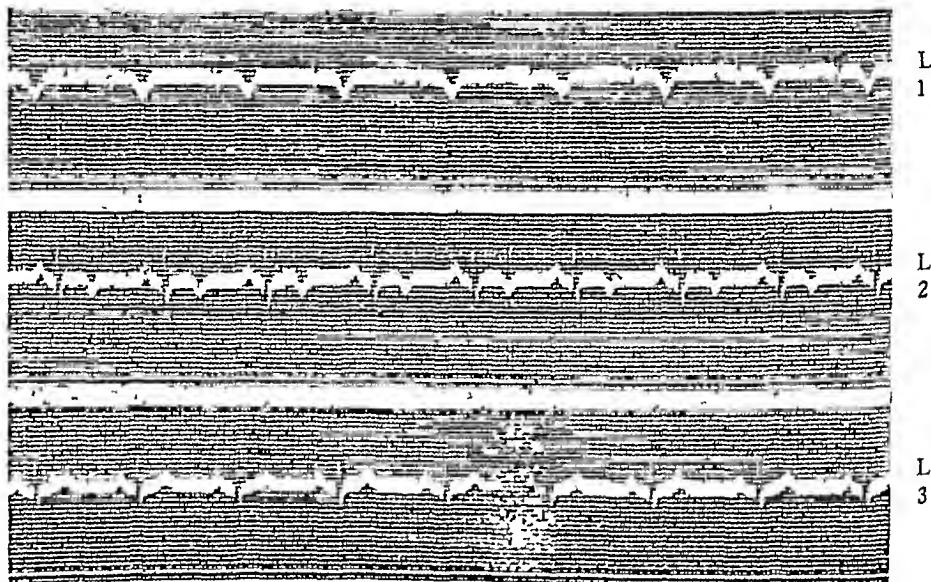


Fig 3 Electrocardiogram, fourteen days later, Leads I, II, III Heart Rate seventy-five per minute, "QRS" complexes low, and slurred, "T" waves in leads I and II still coved and deeply inverted, showing same myocardial infarction

References

- 1 Levine, S A and Tranter, C L *Amer Jour Med Sc*, 155 57, 1918
- 2 Pardee H E B *Arch Internal Medicine* 26 244, 1920
- 3 Mackenzie, J *Angina Pectoris* Oxford Medical Publications, 1923
- 4 Buerger, L. *The Circulatory Disturbances of the Extremities* Philadelphia and London, W B Saunders Company, 1924
- 5 Perla D *Surg Gynec Obst* 41 21, 1925
- 6 Allen E V and Williams, F A *Ann Int Med* 3 35, 1929
- 7 Barron M E and Linenthal, H *Arch Surg* 19 735, 1929
- 8 Samuels, S and Feinberg, F A *Am Heart J*, 6 255, 1930
- 9 Brofeldt, S A *Acta Soc med fenn duodecim* 14 6, 1932
- 10 Averbrück, S II and Silbert, S *Arch Int Med* 54 436, 1934
- 11 Telford, E and Stopford S B *Brit M J* 1 863, 1935
- 12 Krumminger E C *Acute Thromboangiitis Obliterans of the Coronary Artery* Medical Papers (Christian), p. 157 Waverly Press 1936
- 13 Mallory, T B *Ibid* p 147
- 14 Saphir O *Am Heart J* 12 521 1936
- 15 Riseman and Weiss *Ibid* 5 172 1929

"Why do you close your eyes every time you take a drink?"

"My doctor said I must not look at liquor"—*Ills Med Jour*

There will be a meeting of The Association of Military Surgeons of the United States in Los Angeles, Calif, on October 14-16

THE NEW PHARMACOPEIA

WARREN COLEMAN, M D, *New York City*

Ever since the publication of the deletions from USP XI this question has been insistently recurring to my mind

What are the functions of a pharmacopeia?

In seeking an answer I have reviewed USP I, the subsequent revisions and the dispensatories of London, Edinburgh, and Dublin. In the Preface to the first Pharmacopeia (1820) it is stated that "the object of a pharmacopeia (is) to select from among substances which possess medicinal power, those, the utility of which is most fully established and best understood and to form from them preparations and compositions, in which their powers may be exerted to the greatest advantage" (The "compositions," it may be explained, were approved combinations of drugs such as compound jalap powder, confection of senna, etc.) The earliest pharmacopeias contained primary and secondary lists of drugs, the first consisting of those whose actions were the better known

From this it is evident that the founders of the pharmacopeia considered its functions, among others, (1) to furnish a comprehensive list of drugs, and (2) to recommend combinations of drugs that had received general approval

The Convention of 1870 (USP V) adopted the following resolution, "that in the revision of the official list and formulas the wants of the medical profession in all parts of the US should be considered and that the scope of the work be extended rather than abridged" Yet in subsequent revisions an increasing trend toward abridgement may be observed. The Preface to USP XI states that the "The Eleventh Revision of the Pharmacopeia of the US is representative of approved therapeutic agents used in medical practice" The Pharmacopeia has therefore now become merely a restricted and selected list of the drugs used by physicians in this country. Only indirectly through its guaranties of the purity and strength of the drugs it lists and its directions to pharmacists and

manufacturers for making preparations from them is it of help to practicing physicians. There has thus arisen an entirely different conception of the functions of the Pharmacopeia from that entertained by the first and subsequent Conventions for some sixty or more years. For completeness it should be added that the same trend toward abridgement may be observed in the pharmacopeias of other countries

Such a radical departure from the original functions of the Pharmacopeia naturally leads to speculation on the reasons for the change

The Sub-committee on Scope of USP XI consisted of twenty-three members only a third of whom are actively engaged in the practice of medicine the others are pharmacologists and pharmacists. Deletions from and admissions to USP XI were based upon a majority vote in committee. And the question naturally arises whether the scope of the Pharmacopeia would have been different if clinical medicine had had greater representation on the Committee. I am convinced that physicians in active practice are the best judges of the therapeutic needs of the sick and of the usefulness of the drugs they employ. Certain it is that the general practitioner determines the fate of all drugs and therapeutic procedures irrespective of the auspices under which they are launched

Another reason for the new conception of the functions of the Pharmacopeia may be the disfavor into which the method of empiricism has fallen. But there is much to be said for the empirical method of observation in medicine. It has given the medical profession it has been estimated, forty per cent of the drugs in use to-day. Most of them have come down to us from the Greeks, the Romans, and Arabians. Among them are opium, vegetable purgatives, and chaulmoogra oil. Though of later date mercury and the iodides for syphilis, cinchona for malaria, ipecac for amebic dysentery, and digitalis are the products of empiricism. The therapeutic

victories of empiricism, I venture to say, outnumber those of pharmacology, physiology, and bacteriology combined. Although empiricism at times may lack controls and its followers differ in the ability to observe and record facts, the multitude of experiments usually corrects these deficiencies. Moreover empiricism possesses a control that cannot be imported into a laboratory, namely, the psyche. The psyche may mislead but it is an invaluable control. No laboratory animal can tell the observer how it feels.

Without in the least intending to belittle the scientific approach to medical and therapeutic problems, I would emphasize my belief that the practice of medicine is an art. Moreover, it is an art that may be acquired only by long training at the bedside, and until the X quantity in the biological reactions of the human body especially in disease to its environment is found, the practice of medicine will continue to be an art.

Medicine is under a great debt to the sciences, especially to physiology, bacteriology, biochemistry, and pharmacology. But the ability to observe and record facts accurately is a quality of mind and is largely independent of time or place or equipment. For instance, with all the study that has been devoted recently to digitalis no essential action has been added to those described by Withering one hundred and fifty years ago. Perhaps the greatest contribution of pharmacology has been to furnish explanations of well-known actions of long-known drugs. It has been asserted that one of the functions of pharmacology is to destroy the faith of clinicians in certain of their drugs. But pharmacology has its limitations as well as clinical medicine. Such an attitude is not without its dangers. Even the latest scientific tests of a period may not suffice to refute clinically established facts. For more than a century cod-liver oil had been found by physicians to possess special therapeutic virtues. Yet some twenty-five years ago pharmacologists chided physicians for still believing that cod-liver oil possessed any actions not shared by other animal oils. And not long thereafter vitamins were discovered.¹ Cod-liver oil was found to contain vitamins A and D but there is reason to believe that science has not yet

solved the therapeutic riddle of this old fashioned remedy.¹

Deletions

To comment briefly on some of the deletions from USP XI and other recent revisions

Calumba and quassia are just as bitter as they ever were and just as good stomachics. Why should they not be retained? The human palate has many vagaries and is slow to forgive insults.

Colocynth, jalap, rhubarb and soda mixture, and compound cathartic pill, all have been cast out of the Pharmacopeia. And the practicing physician is left to wonder how many of those voting for the deletion of these drugs and combinations have had under their ministrations constipated, colon-conscious, neurotic women? The alternative to changing their medicines is often self-sought and directed colon irrigations with quarts and quarts of water "until the mucus is brought away."

The infusion of digitalis was a favorite prescription of master clinicians of a generation ago. Now that digitalis is standardized, the infusion should be more useful than ever. From my more recent experience, I am convinced that a weaker preparation than the tincture of digitalis is needed. There would be fewer instances of over-digitalization if one were official and used. In my opinion the medical profession and drug manufacturers have too greatly stressed the relation of cat-unit to digitalis dosage. In none of their writings did Hatcher and Eggleston even suggest that the optimum dose of digitalis could be found by means of the cat-unit and the multiplication table. The only method by which it may be found is with the aid of the clinician's finger and ear.

Changing of Names

Another criticism I would make of the Pharmacopeia is the constant changing of names. Even intelligent laymen knew that spiritus vini gallici is brandy, now it is spiritus vini vitis, as though gallic wine were not a wine of the grape. Pulvis digitalis foliorum has been changed to digitalis pulverata, the one indicating the process of reduction, the other the phys-

ical state of the powder Compound licorice mixture is now *mistura opii et glycyrrhizae composita*—if the young practitioner does not know that brown mixture contains paregoric, the fault lies in his instruction in *materia medica*.

It has become the fashion now-a-days to group combinations of drugs as "shot-gun" mixtures, thus ignoring the doctrines of synergism and correctives. And formulas have largely disappeared from the Pharmacopeia. The British Commission takes the stand "that the prescribing of combinations of drugs should be left to the individual practitioner"². But the young practitioner at least in America has not been taught sufficient *materia medica* to make up satisfactory combinations. Moreover, not every practitioner is capable of creating a Dover's powder, a Stokes' expectorant or a Fothergill pill. Standardized formulas, compounded on the experiences of many clinicians with the technical assistance of pharmacists, are far superior to any combinations the physician may extemporize in his office or at the bedside. The alternative to including a reasonable number of formulas in the Pharmacopeia in my opinion is increase in the use of patent and proprietary medicines with the consequent evils of such practice.

The Pharmacopeia and Instruction in *Materia Medica* and Therapeutics

From its beginnings the Pharmacopeia has been the standard for instruction in *materia medica* and therapeutics. Drugs not in the Pharmacopeia or that have been deleted from it are often considered to have been proved worthless. They are not included in textbooks and students are taught little or nothing about them. Yet when recent graduates enter upon their internships they find some of these drugs in their hospital formularies and that others are favorite remedies of their visiting physicians. Textbooks on *materia medica* and therapeutics have been replaced by textbooks of pharmacology in which the sections on therapeutics have been written by men who rarely or never see a patient. The Chairs of Therapeutics have been abolished in some of the best medical schools. Recently it has been stated in print that there is not time in

the medical curriculum to teach prescription-writing.³

In such circumstances it is scarcely surprising the belief is widespread that the instruction of medical students in *materia medica* and therapeutics is deficient. After analyzing the replies to a questionnaire addressed to the secretaries of all State Boards of Medical Examiners on the relative standing of the candidates in *materia medica* and therapeutics, David⁴ concludes that the survey presents definite evidence that recent graduates know little about the use of drugs when they begin the practice of medicine. Unfortunately hospital interns are not required to learn the components of the mixtures they employ, or the reasons for combining them, and too often they fall into the habit of prescribing them by name or number. Pharmacists complain and prescription surveys indicate that a large percentage of the prescriptions given to patients by physicians call for ready-made patent and proprietary preparations. There must be a reason for this. And I am disposed to think that at least a share of responsibility falls upon the policies followed in the last several revisions of the Pharmacopeia. Some of the drugs that have been deleted are in constant use by many physicians. Some of them have been in use for 2000 years and more—before pharmacopeias were thought of—and will still, or again, be used when pharmacopeias are no longer printed.

National Formulary and Pharmacopeia

Among the reasons that called the National Formulary into existence was the "well-known (fact) that the remedies for which the Pharmacopeia prescribes definite standards constitute *only a limited portion of the resources* of the medical profession in the treatment of the sick"⁵. The National Formulary undertook to establish standards for these unofficial "resources" and these standards have since been given the force of the law. The difference between the Pharmacopeia and the National Formulary is thus summarized in NF V (1926) "The Pharmacopeia is a standard of therapeutic agents, the National Formulary is a standard for pharmaceutical formulas

victories of empiricism, I venture to say, outnumber those of pharmacology, physiology, and bacteriology combined. Although empiricism at times may lack controls and its followers differ in the ability to observe and record facts, the multitude of experiments usually corrects these deficiencies. Moreover empiricism possesses a control that cannot be imported into a laboratory, namely, the psyche. The psyche may mislead but it is an invaluable control. No laboratory animal can tell the observer how it feels.

Without in the least intending to belittle the scientific approach to medical and therapeutic problems, I would emphasize my belief that the practice of medicine is an art. Moreover, it is an art that may be acquired only by long training at the bedside, and until the X quantity in the biological reactions of the human body especially in disease to its environment is found, the practice of medicine will continue to be an art.

Medicine is under a great debt to the sciences, especially to physiology, bacteriology, biochemistry, and pharmacology. But the ability to observe and record facts accurately is a quality of mind and is largely independent of time or place or equipment. For instance, with all the study that has been devoted recently to digitalis no essential action has been added to those described by Withering one hundred and fifty years ago. Perhaps the greatest contribution of pharmacology has been to furnish explanations of well-known actions of long-known drugs. It has been asserted that one of the functions of pharmacology is to destroy the faith of clinicians in certain of their drugs. But pharmacology has its limitations as well as clinical medicine. Such an attitude is not without its dangers. Even the latest scientific tests of a period may not suffice to refute clinically established facts. For more than a century cod-liver oil had been found by physicians to possess special therapeutic virtues. Yet some twenty-five years ago pharmacologists chided physicians for still believing that cod-liver oil possessed any actions not shared by other animal oils. And not long thereafter vitamins were discovered! Cod-liver oil was found to contain vitamins A and D but there is reason to believe that science has not yet

solved the therapeutic riddle of this old fashioned remedy¹

Deletions

To comment briefly on some of the deletions from USP XI and other recent revisions

Calumba and quassia are just as bitter as they ever were and just as good stomachics. Why should they not be retained? The human palate has many vagaries and is slow to forgive insults.

Colocynth, jalap, rhubarb and soda mixture, and compound cathartic pill, all have been cast out of the Pharmacopeia. And the practicing physician is left to wonder how many of those voting for the deletion of these drugs and combinations have had under their ministrations constipated, colon-conscious, neurotic women? The alternative to changing their medicines is often self-sought and directed colon irrigations with quarts and quarts of water "until the mucus is brought away."

The infusion of digitalis was a favorite prescription of master clinicians of a generation ago. Now that digitalis is standardized, the infusion should be more useful than ever. From my more recent experience, I am convinced that a weaker preparation than the tincture of digitalis is needed. There would be fewer instances of over-digitalization if one were official and used. In my opinion the medical profession and drug manufacturers have too greatly stressed the relation of cat-unit to digitalis dosage. In none of their writings did Hatcher and Eggleston even suggest that the optimum dose of digitalis could be found by means of the cat-unit and the multiplication table. The only method by which it may be found is with the aid of the clinician's finger and ear.

Changing of Names

Another criticism I would make of the Pharmacopeia is the constant changing of names. Even intelligent laymen knew that spiritus vini gallici is brandy, now it is spiritus vini vitis, as though gallic wine were not a wine of the grape. Pulvis digitalis foliorum has been changed to digitalis pulverata, the one indicating the process of reduction, the other the phys-

RADIOLOGY AND THE RADIOLOGIST OF THE FUTURE

FREDERIC E. ELLIOTT, M.D., *Brooklyn*

The announcement of Professor Wilhelm Conrad Roentgen of his discovery of the x-rays, some two score years ago, opened the way for romantic adventure of human intelligence into unexplored fields. An account of the various steps of progress through which mechanical and chemical devices with creative understanding have advanced the use of the x-rays to the benefit of mankind would be both interesting and a source of inspiration. However, time and our present purpose do not permit of such review of this epoch, filled as it has been with the work of the pioneers, the pathfinders and the martyrs with their individual and group contributions to what is now called Radiology. We dismiss this consideration of our subject with humble and generous acknowledgments to all of those men and women whose accomplishments have made possible so much precision and certainty in the practice of the healing art.

Reluctantly, we turn our discussion from the glories of the past to face the realities of the present. We serve a public whose mind is materialistic, practical. That public is interested in our Radiology for the service which it may render at the time of injury or sickness. And we, who engage in the practice of Radiology, may well consider our work from this social economic viewpoint. It is timely that we ask ourselves and our colleagues, these questions:

Is the present use of x-rays in medicine attaining the greatest possible good?

In what ways can the professional and social worth of this science be made more effective and helpful?

What, if any, are the influences which stand in the way of further desirable progress in such directions?

These must be intelligently answered if the Radiologist of the future is to be something more than a memory of an extinct branch of the medical profession. It is my opinion that Radiology of

today is not rendering its full possible benefits that the scope of its use can be broadened and the quality of service improved. Well-entrenched and powerful influences must be overcome if such ends are to be attained and the wrongs of present-day conditions are to be corrected. We must face the hard, cold facts. Customs and habits of thought must be reshaped to proper understanding. Commercial greed must be curbed. Our public must be made to understand our problems as we see them. When this is done an enlightened public will ally the weight of its opinion with our efforts. The public and the Radiologists have mutual interests in the promotion of proper use of the x-rays in Medicine.

One thought may seem academic and trivial, yet to my way of seeing, it is the most important. The demonstration of the human body parts by means of x-ray shadow images is, in fact, a physical examination. Yet, commonly our public and our colleagues refer to these images as pictures—to the end that Radiology is too commonly regarded as mere photography. Radiologists are themselves largely responsible for this state of affairs. To a technical audience it is not necessary to discuss the distinctions between objective surface images produced by the reflected parallel rays of ordinary daylight illumination and the superimposed shadows of interior parts, accomplished by divergent Roentgen rays and registered upon a film or fluoroscopic screen. The lay mind does not grasp the understanding that anatomical parts and functions are presented quite differently in the x-ray image as compared with the objective optical image. Even our professional brothers often fail to appreciate the necessity of the practical knowledge of x-ray-anatomy, x-ray-physiology, and x-ray-pathology before an interpretation of the x-ray image can have real value.

We, who practice Radiology, are largely

in use by physicians." In other words, the Pharmacopeia is the expression of the opinions of the Sub-committee on Scope concerning the therapeutic usefulness of drugs inferentially, drugs that have not been admitted, or that have been deleted, are considered less useful or useless. The National Formulary reflects the current use of drugs and formulas by the medical profession. The Committee that compiles it disclaims all therapeutic responsibility. The drugs and formulas deleted from the Pharmacopeia are usually admitted to the National Formulary. But to be admitted, a drug must have been called for in twenty per cent of the drug stores of the United States or once in each 10,000 prescriptions. If the purpose of the Committees of Revision of the more recent Pharmacopeias in restricting the titles has been "educational," it would seem to have failed. Prescription surveys prove that physicians will not confine their prescribing to the drugs selected for them, instead they are turning to ready-made patent and proprietary preparations. Such a situation should command the attention of the Pharmacopeial Convention, of educators and perhaps of the American Pharmaceutical Association, and remedies sought to correct it. The responsibility for the situation lies primarily, I believe, at the doors of the Pharmacopeial Convention and the medical colleges.

Remedies

1 To bring the Pharmacopeia more nearly into accord with the opinions and therapeutic practices of general practitioners. It would be better policy, I believe, to include in the Pharmacopeia drugs whose actions have not been, or cannot be, proved on laboratory animals than indirectly to encourage the use of patent and proprietary remedies. Similarly, a reasonable number of long-approved formulas should be included in the Pharmacopeia.

2 To give students much more thorough instruction in materia medica, therapeutics, and prescription writing even at the expense, if necessary, of parts of the courses in preclinical sciences. The great objective of medical education after all is the training of practitioners of medicine.

Greater familiarity with the drugs in common use and with formulas created by master clinicians would, I believe, protect both physicians and the public against exploiters of drugs.

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References

- 1 For references, see *U S Dispensatory*, 22nd Edition, Olemum Morrhuise.
- 2 *British Pharmacopoeia* 1932
- 3 Cook E. Fullerton *J.A.M.A.* 107 965, 1936
- 4 David, Norman A. *J.A.M.A.* 106 405, 1936
- 5 *National Formulary* I 1888

WIDER HIGHWAYS HAVE MOST WRECKS

According to the *Associated Press*, making the automobile highways wider evidently has increased the risk of accidents and would seem to be the cause of a higher proportion.

On Jan 21 this statement of facts was reported to the American Society of Civil Engineers by Arnold H Vey, who is Traffic Engineer of the State of New Jersey. Mr Vey states that in New Jersey 2-line highways have an accident rate of 275 for every million miles of automobile travel, the rate for the 3-line roads is 353, and the rate for the 4-line highways is 361.

According to Mr Vey, the increased proportion of accidents on the wide roads is due principally to the more flexible movement of traffic from side to side. The wide

highway cuts down some accidents and increases others. Right-angle collisions, head-on smashes, and running into fixed objects were recorded less often on wide roads.

Collisions by automobiles running in the same direction were more frequent. Peculiarly as it may seem, accidents to pedestrians were reduced very little by widening the roads.

It is claimed that much of the danger from wide roads can be eliminated by proper control. Pedestrians should have sidewalks or paths. Mr Vey states, "It is significant that 21 per cent of New Jersey's automobile accidents occur on highways which total only 6 per cent of the state's roads."

undertakes his training for the practice of Radiology with a first seasoning of his medical knowledge by five to ten years in the general practice of medicine starts with a handicap which only unusual talents and effort can overcome. Only after surmounting great difficulties will he ever rise above the level of a mere photographer. Consideration of the public interest will eventually require such probational experience in general medical practice from all who desire to engage in the practice of Radiology. One of the absurdities of the present era is the medical novice who sprouts the plumage of a specialist before his quill feathers are full-grown. The hazards to human health and life will justify throwing strict restrictions around the practice of all the medical specialties, especially those in the diagnostic group.

When Radiologists have been recognized as consulting diagnosticians, making a special form of examination, it will be easier, perhaps, to educate our colleagues not to undertake to dictate the method of procedure. We would like to bear at length on this, but two points are particularly in mind. Physicians who make a careful clinical study of their patients seldom subject them to the expense of needless x-ray examination. When an x-ray examination is ordered upon a mere presenting symptom or other superficial consideration, or as a "first-step" approach to an understanding of an injury or illness, it frequently results in a finding of negative value to the patient and brings displeasure if not discredit to those who have participated. The physician who habitually calls for stereoscopic films subjects his patient to added expense. This will be of less frequent occurrence when it is more generally appreciated that such films, made as they must be with a beam of divergent rays at relative close range, are not truly stereoscopic and so often falsely represent the depth relationships. We are convinced that the trained and experienced Radiologist subconsciously corrects the inescapable distortions produced by the beam of divergent rays, and instead of reading the flat picture-like image on the film, he reconstructs between himself and the film a phantom image of the parts, arranged in their true relationships, and from such phantom

image he reads a truer interpretation than can be gotten from the imperfect optical illusions of a stereoscope.¹

We sometimes wonder if our friends, who undertake to direct the technic method of our examinations, ever realize the unwarranted presumption of such an act. They understand little of the physics of shadow projection and less of the standardized procedures of present-day Radiologic practice. How much greater service they would render their patients if they would only reduce the patient's need to a statement of a clinical problem, leaving the selection of procedure to the one who is expert in Radiologic practice.¹

More might be said and other points could be cited with profit, however, so much for the wrongs that have been established by custom and habit-conduct. In the immediate present, the public suffers greater economic injustice and more questionable professional service in consequence of commercial greed. The Federal government, in an effort to relieve financial distress of unemployment, opened the flood gates of money and easy credit as a means of starting the wheels of industry. Certain of the manufacturers of x-ray equipment have exploited the opportunity of easy money created by the Federal Housing Act. High pressure salesmanship has been applied to every physician who would give the time to listen. It has been represented that with no original investment, the physician might collect the fees of a specialist in Radiology and relieve his own economic distress, and at the same time easily discharge the financial obligation for the equipment out of such "easy money." Pertinently these salesmen have urged "that the doctor around the corner or up the street has ordered a machine and your patients will be leaving you for the other doctor who has an x-ray machine in his office." Literally, thousands of fluoroscopes and bedside units have been installed and the overcredulous doctors have undertaken to reap the harvest. After the signature has been placed on the dotted line, the manufacturer collects his money in full, and goes on his way to enjoy a hitherto unknown prosperity. But the poor doctor is left to a sorrowful realization that the purchase of an x-ray generating apparatus is the smallest item

responsible for wrongs which have arisen out of this "picture" ideology. We have held our films before interested eyes and asked them to see certain things. Because of our enthusiasm and pride in our craftsmanship we have disregarded the fact that back of such eyes there was not the same conscious and subconscious faculties which, time and experience with careful regard for factors of physics and chemistry, have developed in the mind of the trained Radiologist. We have not been content to render our opinions; we have sought to demonstrate the truth of them—by evidence which the observer was unprepared to properly evaluate. We have built up the appreciation for a "picture" and undermined the value of expert "opinion." We have called it a picture, it looks like a picture, and so "why not?" Thus, doctors and patients are now demanding the technical evidence of our examinations, that they may re-evaluate a conclusion upon which an expert opinion has been rendered. Nothing has so much injured the status of Radiology as has this common practice of "picture" exhibition.

We would like to extend this topic to considerable length but time limits us to two pertinent citations. Just now we hear much about Silicosis. We hear about "pictures of silicosis." Of course, every intelligent physician knows the gradation of changes which occur between the first slight loading of the respiratory tissues with silica, or kindred dust substance, and those manifestations which come with progressive accumulations. Likewise, every clinician knows that concomitant disease of other nature may be and commonly is coincident with "dust" accumulations in the lung tissues. The evaluation of the meaning of the density changes becomes an examination problem and not a photographic demonstration or exhibition. Now, take another field, the bone fracture; any one can detect the fault in the continuity of bone outline. It seems like a simple performance to make such an interpretation. I once had a lawyer assert that he was an expert on reading fracture case films and he supported his point assuredly on the fact that he possessed in his files more than 150 films of court cases. He felt confident that this range of experience had properly quali-

fied him in this field. He was blissfully indifferent to the necessity of appraising the relationships of the parts, or the recognition of concurrent pathologic change. Thousands of physicians with scarcely greater radiologic experience and no training falsely assure themselves of competence which is, in fact, little above that of our legal friend.

We know of an instance in which a railroad brakeman, working on a freight car, suffered a fracture of both ankles. He was given care in a hospital where x-ray films are made by a photographer and the surgeons make their own "reading" of the films. The fractures would not unite. After failure of osteoplastic operations on one side, the foot was amputated. It was then proposed to amputate the other foot. At this point the man's case came up in court and the railroad paid \$20,000. The day before trial a consultant Radiologist recognized luetic changes in both tibias. He was not called into court to give testimony, but had the satisfaction of knowing that the other fractured ankle united promptly under proper antiluetic therapy. From our limited range of experience we could cite many other instances of harm which have resulted from incompetent interpretation of the x-ray evidence.

The x-ray image is not a picture, albeit the image is registered in a photographic emulsion by photochemical processing. But "pictures" they will be in the minds of the public and our medical profession until such time as we, ourselves, discontinue such misnomer. It has been said that digestion of food begins in the kitchen. Truly the interpretation of an x-ray image begins with the technic of its production. When Radiologists stop the use of the word "picture" they may rise above the status of radiographers or photographers.

A correlate to the idea that the Radiologist examines rather than photographs a patient is the belief that the Radiologist must qualify as a diagnostic consultant. There will be greater value to the patient when the Radiologist correlates the clinical data with the x-ray image interpretation, than when the clinician reads his clinical conclusions into the fancied details of the radiographic evidence, as he sees it. A physician who

undertakes his training for the practice of Radiology without a first seasoning of his medical knowledge by five to ten years in the general practice of medicine starts with a handicap which only unusual talents and effort can overcome. Only after surmounting great difficulties will he ever rise above the level of a mere photographer. Consideration of the public interest will eventually require such probational experience in general medical practice from all who desire to engage in the practice of Radiology. One of the absurdities of the present era is the medical novice who sprouts the plumage of a specialist before his quill feathers are full-grown. The hazards to human health and life will justify throwing strict restrictions around the practice of all the medical specialties, especially those in the diagnostic group.

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More might be said and other points could be cited with profit, however, so much for the wrongs that have been established by custom and habit-conduct. In the immediate present, the public suffers greater economic injustice and more questionable professional service in consequence of commercial greed. The Federal government, in an effort to relieve financial distress of unemployment, opened the flood gates of money and easy credit as a means of starting the wheels of industry. Certain of the manufacturers of x-ray equipment have exploited the opportunity of easy money created by the Federal Housing Act. High pressure salesmanship has been applied to every physician who would give the time to listen. It has been represented that with no original investment, the physician might collect the fees of a specialist in Radiology and relieve his own economic distress, and at the same time easily discharge the financial obligation for the equipment out of such "easy money." Pertinently these salesmen have urged "that the doctor around the corner or up the street has ordered a machine and your patients will be leaving you for the other doctor who has an x-ray machine in his office." Literally, thousands of fluoroscopes and bedside units have been installed and the overcredulous doctors have undertaken to reap the harvest. After the signature has been placed on the dotted line, the manufacturer collects his money in full, and goes on his way to enjoy a hitherto unknown prosperity. But the poor doctor is left to a sorrowful realization that the purchase of an x-ray generating apparatus is the smallest item

in the equipment of a Radiologist. We have confidence in the honesty of our profession and firmly believe that within a few months most of these instruments will become mere ornamental decorations. But there are some men licensed to practice medicine (and we regret the truth of this statement) who are not scrupulous. These men are not competent and will never become proficient in Radiology. They will fluoroscope their patients and make films, and an unsuspecting public will pay fees for a supposed service, for a service which, in fact, has no true value. Thus, a credulous public has been subjected to a mongrel exploitation to satisfy the greed of commercial enterprise. Gullible physicians have been tempted into betrayal of public confidence and are left holding the bag. The unscrupulous have been encouraged and financially aided in their mercenary misconduct. We further regret to say that some respected members of our profession, suffused with egotistical self-esteem and self-appreciation, will less quickly lay aside activity in this field of practice. We have seen some, highly regarded and truly expert in their respective special fields, verge upon apoplectic convulsions while denouncing other physicians who venture into their particular range of practice without proper training and experience, yet they themselves, with a nonchalance that would be amusing if it were not tragic, boldly exhibit their amateur abilities in the field of Radiology with utter disregard of the inconsistency of their acts.

"O wad some Power the giftie gie us
To see ourselves as ithers see us!"

The public will soon have one means of self-protection. The American Board of Radiology is an authoritative body. After due investigation and examination, this Board will certify and grant diplomas to those who are properly qualified to practice Radiology. An intelligent public will then heed the expert interpretation of x-ray examinations and will refuse to be mulcted for "specialists' fees" by the untrained and inexperienced. Until such time as this Board has had opportunity to complete its task, the careful citizen will do well to regard with suspicion any small and incomplete equipments which are operated by physicians who are with-

out established recognition as Radiologists in their home communities. We must honor the general practitioner in the rural community who adds a small radiological unit to his needs for emergent cases—he never indulges in the despicable abuse of public confidence by seeing "a spot" on the lung with a fluoroscope, repeated as frequently and as far as the victim remains unsuspecting and credulous, at \$10.00 per look.

Commercial greed has projected its ugly head into this field of medical practice. Institutions owned by laymen, some operated under hired licensed physicians, advertise, solicit, and rebate in order to acquire patronage. While the public attention has been focused upon surgery, it must be emphasized that the public is mulct of a greater sum of money thru the needless x-ray photographs made by commercial institutions upon which a fee split is kicked back to the referring doctor. It is a sad commentary on present medical ethics that so many physicians profane their profession by the acceptance of such betrayal of confidence. The morals of the profession have been impaired. During the past session of the New York State Legislature a bill was introduced to more clearly define the Education Law as it relates to the practice of Radiology. The bill was defeated by holding it "in committee," and the chairman of the committee of the Senate alleged that he was taking such action upon the appeal of two commercial laboratories located in Manhattan, who feared its consequence upon their outlaw activity in the commercial vending of medical service.

Another threat against Radiology is the activity of recognized hospital institutions who utilize Radiology as a "source of revenue." Effort has been made to draw a distinction between the technical production of the x-ray film-image and the professional practice of interpretation. If this move were successful, the hospital could possibly justify itself, and the practice of Radiology would largely resolve itself into the incompetent interpretation of untrained members of the staff of each hospital who would be encouraged to determine the "reading" of their own case "pictures." We are honestly convinced that no hospital should be permitted to

receive a revenue from the practice of Radiology, or from any other branch of medical practice, nor should any institution be permitted to practice a competitive activity which would be prejudicial to the welfare of the Radiologic profession and, therefore, against the welfare of the public. This principle is sound and vital to the future of Radiology. The place of the Radiologist in relation to Hospital Administration as an employee is weighted with degrading implications. Radiologists and allied specialists in Pathology, Anesthesia, and Physical Therapy must be integrated with the Medical Board to give recognition in keeping with professional attainment and in conformity with the respect accorded other medical colleagues.

Unless the wrongs in the present use of x-rays in medicine are corrected, the reaction of public opinion will prejudice present esteem for the medical profession when the truth is realized.

We have said that the service of Radiology to the public could and should be broadened. Take for example one field—tuberculosis. It is important that "case finding" be extended as far as possible. One commercial concern has perfected a rapid-fire technic by which great numbers can be paraded before the x-ray tube, at a low cost. The fault with this program has been that the materials utilized have been of such character that the slightest changes of density and vascularity, which signal the initial pathologic change, are not detected. Thus a patient in the most amenable stage of his infection may be sent on his way with the false sense of security that he has no tubercular infection. The transparent film image is better suited for the examination of such cases. The Radiological Guild of New York is now working out a program which will make "screening examinations" possible on a practical, economic basis. Announcement of this program will be made in *Roentgen Economics* and other publications during the Summer.

The Radiologist of the Future

One may well ask if there will be such a creature in another generation. Good medical care will be available for the

American people only if the economic foundations of medical practice are maintained. Likewise, Radiology will remain a virile specialty in medical practice or it will become extinct, according to its economic supports. If commercial interests are permitted to continue exploitation of this professional field, if hospitals and clinics may continue to operate in this field for revenue or practice unfair competition, if the profession at large is to continue to undertake this form of physical examination without proper training and experience—in other words, if the vastly greater part of the practice of Radiology is to be taken from those physicians who have been trained and experienced, then the discouragement and demoralization of poverty will disband and destroy and with time extinguish the Radiologist from the future. The specialty of Radiology cannot be sustained on the economic foundations which arise from the examination of the unusual and difficult case—many of which arrive at the hands of the expert Radiologist only after amateur efforts have dissipated the individuals' financial resources.

We have confidence in the honesty of the medical profession individually and collectively. The exceptions only serve to make the faith more vibrant. We believe that the profession will return radiologic examinations to the competent Radiologists. If this does not occur the ultimate reaction of public opinion will be severely harmful to the entire profession of medicine. We believe that Radiologists must become vocal within the halls of professional conferences. We must make the wrongs of present conditions evident and odious. On the constructive side, we must plan and universally support programs which will extend the usefulness and availability of Radiology to the full possible reach of its possibilities of service to the public and our professional colleagues.

The Radiology of the Future will be what we Radiologists of today make of it. We owe to the people of our nation the protection of our heritage.

122—76 St

Reference

- 1 Kurtz and Bridge *Amer Jour Roent*, Vol 18 No 4

PRESENT STATUS OF LARYNGEAL TUBERCULOSIS

A Review of 245 Cases

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The pessimistic attitude with regard to the prognosis of tuberculosis of the larynx held two or three decades ago is not tenable today. Where, at the beginning of the century, the advent of laryngeal tuberculosis was considered as rendering the prognosis invariably hopeless, today the outlook is much brighter. To a large measure such a more favorable outlook is directly attributable to the advances in the diagnosis and treatment of the pulmonary disease, rather than to any startling improvements in the treatment of the laryngeal complication. The incidence of local involvement in the larynx has also diminished. Fifteen or more years ago it was an everyday expectancy to see one or more cases of tuberculosis of the larynx in the outpatient departments of our hospitals, but today such cases are rarely seen in the throat clinics of even our most active institutions.

A review of 245 cases of laryngeal tuberculosis is herewith presented with the intention of recording our observations with respect to etiology, diagnostic and pathological features, and therapeutic measures, and correlating our findings with those presented by the many laryngologists who have had much experience with this disease.

This survey covers a period of three years and has been obtained from our patients at the Riverside Hospital in New York City, an institution for tuberculous patients.

Etiology

Incidence of Laryngeal Involvement in Pulmonary Tuberculosis

During a three year period we examined 1719 cases of pulmonary tuberculosis and found that 245 (14.2%) had the laryngeal involvement. There is a wide variation in the statistical reports as to the incidence of laryngeal tuberculosis.

Lederer and Fishman¹ report fifteen per cent, Kemler² sixteen-twenty per cent, Van Poole³ 22.9 per cent, St. Clair Thompson⁴ 18.7 per cent, Looper and Schneider⁵ 15.5 per cent, and Dworetzsky⁶ 25.6 per cent. Vandeverer⁷ reports as low a percentage as 3.24, and Hayes⁸ reports as high a percentage as forty-fifty per cent. This considerable variation may be entirely accounted for by the different criteria on which a definite diagnosis of laryngeal tuberculosis is made. Only the early cases of this complication can account for the disagreement. Certainly there should hardly ever be a question concerning the diagnosis of the moderately advanced or advanced cases. There is a similar discrepancy in the reports of postmortem findings. Cooper and Benson⁹ report 28.3 per cent laryngeal involvement in 798 cases examined on autopsy. Fetterolf,¹⁰ in a study of one hundred postmortem examinations, found the larynx involved in eighty-seven per cent. F. R. G. Heaf¹¹ reports sixty-eight cases of tuberculosis of larynx out of 150 necropsies—a percentage of 45.3. This wide variation in postmortem findings is rather difficult to understand.

Age

The following figures show the frequency of laryngeal involvement in the various age groups in our series.

10-20 years	6%
20-30 "	33%
30-40 "	21%
40-50 "	20%
50-60 "	16%
60-70 "	4%

These figures are in accord with almost all other reports on age preference for laryngeal complications. St. Clair Thompson,⁴ Coakley,¹² and Dworetzsky⁶ found the larynx involved most frequently between the ages of twenty and forty.

From the Laryngological Service of Riverside Hospital

Laryngeal tuberculosis is extremely rare in children. The disease is seen infrequently in patients over forty-five. In our series, the oldest patient was seventy years of age.

Sex

There is some discrepancy in the reports as to the predominance of the disease in males or females. St. Clair Thompson reports that it occurs as frequently in males as in females, Spencer¹² finds it to be more frequent in males, in the proportion of three to two, Van Poole,³ five males to four females. We have found a six to five proportion in favor of males.

Mode of Invasion

It seems to be conceded that primary tuberculosis of the larynx does not exist. The most plausible theory of invasion is through the laryngeal mucosa from the secretions of the lungs, laden with tubercle bacilli—the so-called sputogenic theory. The more frequent occurrence of the laryngeal pathology in the posterior part of the larynx where the sputum is more prone to collect and remain in contact with the larynx for many hours, especially during sleep, seems to substantiate this theory. Aside from this mechanical interpretation, the type of epithelium is also a factor in rendering this part of the larynx more vulnerable. The arytenoids, interarytenoid region, and the edges of the vocal cords are covered by papillated mucous membrane, and are more vulnerable than parts of the larynx covered by ciliated columnar epithelium.

Although the sputogenic route is held to be the predominant mode of invasion, there are many who feel that hematogenous and lymphogenous invasions are responsible for many cases of laryngeal tuberculosis. Certainly, in cases where tubercle bacilli are absent from the sputum, one cannot possibly attribute invasion to this source. In our series we have found twenty-two cases with negative sputum, and it is worthy to note in this regard that thirteen were mild cases, five were moderate, and four severe.

Wood¹⁴ describes four possible ways by which the tubercle bacilli may gain access to the subepithelial tissues from the surface:

- 1 Through the unbroken epithelium
- 2 Through ducts of the racemose glands
- 3 Through traumatic abrasions
- 4 Through pathological epithelium

Torin,¹⁵ in reviewing the mode of invasion, asks the following questions: "Why is tuberculosis of the trachea and bronchi, where the sputum accumulates and lingers for even longer periods of time than in the larynx, rare? How can one explain laryngeal involvement in cases in which the pulmonary lesion is circumscribed and has no direct communication with bronchi and trachea? Why does the larynx escape involvement in cases of long-standing pulmonary phthisis in which the larynx is constantly bathed in bacilli laden sputum?" Thus, because of the absence of definite evidence of invasion, we must accept all three routes as likely, but the sputogenic theory seems the more probable.

Diagnosis and Pathology

Stress must be laid here on the fact that tuberculous laryngitis is not pathognomonic. In typical cases, diagnosis is simple, in atypical ones, it is frequently impossible.

A routine examination is made on every patient admitted to the hospital. The ambulatory patients are examined in our laryngological clinic, and the bedridden in the ward. Indirect laryngoscopy is the method of examination. In only a very few cases has there been need for the direct examination. We feel that the direct method is too great a strain on a tuberculous patient and should be resorted to only on rare occasions.

In spite of the laryngologist's deft and skillful use of the laryngoscope we believe that this examination entails both mental and physical strain. There is also a great possibility of trauma which may spread the laryngeal disease. Schught¹⁶ informs us that early lesions in the ventricle are invariably missed by mirror laryngoscopy and that lesions elsewhere in the larynx are relatively dwarfed, and on that account he insists

on the direct method Of course, it cannot be denied that a more accurate examination of the larynx is assured by such procedure, but we feel that for all purposes concerned, the mirror will demonstrate sufficient pertinent findings on which to base a diagnosis The regions of the larynx most difficult to view with the mirror are the anterior commissure and ventricles, and it is admitted by those specialists experienced in the field of laryngeal tuberculosis that the incidence of involvement in these localities is rather infrequent.

The symptoms are very indefinite in the early cases and are of no assistance in diagnosis Hoarseness, though usually a late manifestation, is sometimes the first symptom for which the patient presents himself Hence the necessity for alertness on the part of the examining physician Hoarseness depends on the involvement of the cords or cricoarytenoid joints Dysphagia and odynphagia are usually late symptoms present with ulceration, chondritis, and necrosis of epiglottis Occasionally these latter symptoms are also manifest with involvement of arytenoids or aryepiglottic folds The contact of food and saliva with these areas results in the excruciating pain of which these patients complain Dyspnea occurs when there is glottic closure which may be due either to intense edema or marked productive lesions Dyspnea may also occur with extensive lung involvement

Early symptoms often appreciated by patients before hoarseness are a tickling, burning or lumpy sensation in the throat, and early vocal fatigue on talking However, these symptoms cannot be relied upon because of their uncertainty and inconsistency

Contrary to the general belief that hoarseness is an ever present symptom, we found it only in 115 of our series This figure does not coincide with the number of our cases recorded who had vocal cord involvement (153) This may be explained by the absence of sufficient pathology in the vocal cords to interfere with phonation to the degree of being appreciated by either patients or physician Schught,¹⁶ recording his experiences with over 500 cases, reports that "Hoarseness, although an early

symptom of carcinoma, often develops in tuberculosis after the larynx is already widely involved Even involvement of one or both cords may cause no noticeable change of voice" The great incidence of cord involvement confined to the posterior parts, may further account for freedom from hoarseness

The region of the larynx more prone to attack is demonstrated in the following (our series)

Vocal cords	153
Arytenoids	122
Interarytenoid sulcus	83
Epiglottis	53
Ventricular bands	40
Aryepiglottic folds	8
Anterior commissure	3

The reports of St Clair Thompson,⁴ Wilkinson,¹⁷ Wilson,¹⁸ Hayes,⁸ and many others are practically in accord with our findings However, Fetterolf's report, based on postmortem observations, is at variance with ours In the eighty-three cases of laryngeal tuberculosis examined, he reports the incidence in the following order 1 Epiglottis 2 Arytenoids 3 Interarytenoid space 4 Vocal cords 5 Ventricular bands 6 Aryepiglottic folds

It is evident from the recorded observations as listed above that the posterior portion of the larynx is more frequently affected—posterior portions of vocal cords, interarytenoid area, and arytenoids

The objective findings that are characteristic of the tuberculous larynx vary with the stage of the disease The pallor often declared to be an early finding is really an unusual occurrence The injected larynx on the other hand is more frequently seen The tuberculous process is rarely limited to one area of larynx The various types of lesions found are infiltration, edema, ulceration, necrosis, fibrosis, and tuberculoma

The infiltration is the early evidence of the laryngeal complication as manifested by thickening and swelling of the submucosa, caused by infiltration of round cells and tubercles, with varying degrees of edema in the subepithelial tissues Such invasion in the interarytenoid sulcus often gives this area a wrinkled and mammalated appearance During this stage, the arytenoids present varying degrees of edema, which, when

extensive, produces the typical pyriform swelling of this structure. This triad of findings, in the cords, arytenoids, and interarytenoid sulcus is a definite diagnostic criterion for the early case of laryngeal tuberculosis.

Ulceration ensues when the tubercles in the subepithelial tissue cascade and break through the surface. The ulcer develops through a proliferation of tuberculous tissue or to edema in submucosa with consequent pressure necrosis of epithelia. When the vocal cords ulcerate, we see the typical mouse-bitten appearance so often described.

Chondritis, perichondritis, and necrosis are evident in the cartilaginous portion of the larynx in advanced cases. This occurrence follows deep ulceration frequently caused by extensive edema with pressure necrosis. The epiglottis involvement, as well as the involvement of the other extrinsic regions of the larynx, has been declared by Thompson to have a very gloomy prognosis. However, we have observed that when the epiglottis is attacked and the other extrinsic regions of larynx are not attacked, the prognosis is not hopeless. We have seen many cases go to complete healing after extensive epiglottic involvement.

Hirsch²⁰ very clearly explains these variations in local pathology of larynx. He describes the alterative, exudative, and productive processes expected in any inflammatory reaction. The alterative process finds expression in the intracellular changes which take place in the structure of the cellular protoplasm and nucleus, such as fatty infiltration and dropsical swelling. With the alterative degenerative changes there occur exudative features where liquid substances of the circulation enter. The next phase of the pathologic process is the emigration of leukocytes, erythrocytes, and lymphocytes which, together with the broken down tissue cells in the exudate, form the anlage for productive inflammation. This is characterized by a proliferation of fixed tissue cells at the site of irritation. Thus, the alterative and exudative processes can explain the infiltration, edema, and ulceration, while the productive processes account for the tuberculous formation and fibrosis.

The reason for the preponderance of

either the exudative or the productive activity may depend on the immunobiologic condition of the organism, the virulence of the virus, and the local tissue structure. Thus, with a very virulent virus and little resistance, we may expect the laryngeal picture to be one of a diffuse, intense edema with ulceration and perhaps necrosis. There is no evidence of any productive changes. This condition would fit into the acute tuberculous laryngitis as classified by Dworetzky.²¹ Pertaining to the local structure, we find that in the region where there is much loose areolar tissue, as in the interarytenoid area and aryepiglottic folds, there is a possibility of much swelling, whereas in cords, ventricular bands, and epiglottis, the extent of edema is much limited.

Manasse²² described four stages of tuberculous involvement of the larynx—infiltration, ulceration, perichondritis, and tumor formation. He accounts for the ulceration as due to the agglomeration of many tubercles under the mucous membrane, cutting off its blood supply and thus causing its death, and exfoliation, and so producing the ulcer.

Fetterolf¹⁰ divides the stages of the laryngeal pathologic process as follows: Infiltration, infiltration with superficial ulceration, infiltration with deep ulceration, and tuberculoma.

It is thus evident that there is little discrepancy in the description of the pathology of the tuberculous larynx. The presence of infiltrative, ulcerative, necrotic or tuberculomatous lesions in a larynx of a patient with pulmonary tuberculosis is readily diagnosed as a tuberculous larynx with little regard for the subjective complaints. Biopsy is rarely resorted to unless there is a question of malignancy. We have found only one case of carcinoma complicating tuberculous laryngitis.

Twenty-one of our series have shown paresis of the vocal cords. Of these, ten showed a complete paralysis and the other eleven only a varying degree of sluggishness. In nine of these cases there was definite evidence of apical tuberculosis on the side of the lung corresponding to the paresis which, very likely, had been responsible for such cord immobility.

The other cases we attribute to local

pathology, either of the cord or at the cricoarytenoid joint

Differential Diagnosis

Those diseases of the larynx, more prone to present difficulty in their differentiation from tuberculosis of the larynx, are chronic catarrhal laryngitis, syphilis, malignant growths, and benign growths. The accompanying table presents the principal differential criteria. It follows mainly a table included in a previous article written by one of us.¹⁰

There is a great tendency for the laryngologist who attends a tuberculosis institution to declare every laryngeal le-

quire a lengthy report. We will, therefore, confine our discussion to the methods most accepted and those employed in our institution.

All of our patients who present any pathology in the larynx are put on vocal rest as a matter of routine. Complete silence, when desired, is most difficult to enforce.

There seems to be some difference of opinion at the present time as to the advisability of vocal rest. St. Clair Thompson, on the one hand, cites a group of completely healed cases treated by this method. He maintains that rest for the larynx is as important as rest for the lung. Kemler,² on the other hand, says

TABLE I—DIFFERENTIAL DIAGNOSIS

	<i>Tuberculosis</i>	<i>Syphilis</i>	<i>Malignant Growths</i>	<i>Benign Growths</i>	<i>Chronic Laryngitis</i>
Hoarseness	Depends on location. Usually early and progressive	Early and progressive	Early and progressive if intrinsic	Depends on location	Intermittent
Sex	Both	Male (predominant)	Male (predominant)	Both	Male (predominant)
Age	20-45	Usually over 20	After 45	Usually over 20	All ages
Early pain	Rare	Frequent	May occur	Absent	Absent
Late pain	Frequent	Frequent	Frequent	Absent	Absent
Vocal rest	Improved by	Not improved	Not improved	Not improved	Improved by
Climatic condition	Improved by dry climate	No effect	No effect	No effect	Worse in bad weather
Dysphagia	Early	Early	Early	Rare	Rare
Odyphagia	Late	Late	Early	Rare	Rare
Constitutional Symptoms	Usual. Depends on extent of lung pathology.	Slight	Late with cachexia	None	Slight
Lungs	Pulmonary tuberculosis	Negative	Metastases here rare	Negative	Chronic bronchitis often
Bacteria in sputum	Tubercle bacilli	Negative. May find Spirochete	Negative	Negative	Mixed infection
Wassermann	Negative	Positive	Negative	Negative	Negative
Biopsy	Tubercles	Gummata	Carcinoma	Benign tumor	Chronic inflammation

sion to be tuberculous. He is too much prejudiced by the presence of the pulmonary lesion, and often overlooks a luetic or malignant condition in this organ. It is not uncommon to find tuberculosis and syphilis coexisting, nor is it a rarity to find a malignant condition implanted on a tuberculous larynx. In fact, the presence of all three have been reported, at different times, in the literature. Thus, it is obvious that the examining physician must always be on the alert for these other conditions which may affect the larynx.

Treatment

To review completely and discuss all the recommended therapeutic measures for the tuberculous larynx would in itself

that "Vocal rest has not served any useful purpose." He feels that the writing necessitated by the regime of complete silence is laborious and depressing to the patients, and that the whispered voice is more exerting than ordinary speech. Wood,¹⁴ rather sympathetic with Kemler's views, feels that what is really wanted in the care of tuberculosis of the larynx is a greater congestion of that organ which is to be expected in ordinary phonation.

We have found, as seems to be the opinion of almost all who are experienced in the care of this disease, that electrocautery is by far the most satisfactory treatment in the majority of cases. However, the indiscriminate use of this therapeutic agent must be de-

pored Lederer and Fishman, in an enlightening paper on the subject of therapy in laryngeal tuberculosis, state "Many methods which have been recommended are successful in some hands but have failed in others because of improper technique and lack of individualization in regard to choice of cases. Discrimination of cases is important in therapy."

We find that there are contraindications to the use of the cautery. These are

1 Evidence of extreme toxicity with high temperature, rapid pulse, and active pulmonary tuberculosis

2 Patients with repeated recent hemorrhages

3 Lesions at the cricoarytenoid to which cautery application would result in ankylosis with restriction of cord motion

4 The acute tuberculous laryngitis—the diffuse, exudative type with or without ulceration.

Wilson, however, has no regard for the general condition of the patient or the degree of advancement of the local condition. In advanced cases with high fever he uses the cautery as a palliative measure and not for an expected cure. We feel that those cases best suited for cauterization are those with productive lesions, localized ulcers, and localized advanced infiltration. Of the forty that were declared satisfactory for cauterization in our series, sixteen showed pronounced improvement, fourteen, moderate improvement, and ten became worse.

Stevenson²³ is not so enthusiastic about the galvanocautery. He says "In my practice I tend to use the cautery less and less, and find the chief indication for its use dysphagia caused by a small ulcer." He mentions the suggestion of E. Tovalgya as a guide for the cautery. The latter, in a doubtful case, effects a simple cautery puncture into larynx. A good inflammatory reaction around the puncture favors the use of the cautery, whereas the absence of reaction or occurrence of necrosis contraindicates it.

With few exceptions our cauterizations are effected by the indirect method. The patient does not receive his breakfast on the morning of this treatment, and is given three grains of sodium amytal four hours before treatment, and another three grain dose one half hour before cauterization. The pharynx is sprayed with

twenty per cent cocaine, followed by the instillation with a laryngeal syringe of cocaine of the same strength about the rim and into larynx proper. The procedure should take about ten minutes, after which the patient waits for another ten minutes and is then ready for the cautery. Three or four punctures suffice for one sitting. A three or four weeks' interval is allowed before again cauterizing the same patient. The cauterization produces vascularization of the lesion with subsequent fibrosis.

Chaulmoogra oil has been extensively used in our hospital. We use it in our cases where there are contraindications to the cautery. We also use the oil in those cases that are suitable for cautery, but only in the intervals between cauterizations. Chaulmoogra oil is employed in advanced cases, more for the palliative effect rather than for its therapeutic value. Dmitry²⁴ has much faith in this medicinal agent and attributes the unfavorable reports to its mixture with mineral oil which he declares injurious. He finds the Chaulmoogra oil bactericidal to acid-fast bacilli, and its end products (fatty acids and glycerin) produce effects which induce local hyperemia.

In cases with dysphagia and odynphagia we resort to the injection of the superior laryngeal nerve. We reach the nerve externally in the space between the upper border of the thyroid cartilage and the hyoid bone. About three c.c. of an alcohol novocain solution are injected (novocain 0.12, chloroform m. 10, alcohol 95 per cent 150, distilled water 80). A severe pain is appreciated in the ear during this procedure. One nerve is injected at a time. All of our fifteen cases requiring nerve injection died.

In cases where perineural injections of alcohol were deemed necessary to relieve pain, it was found that this treatment is not always successful and that its results are brief. It matters not whether the nerve is approached as described above or if the injection is made into the pyriform sinuses. On that account Savitt and Soboroff²⁵ consider the operative approach to the nerve more advisable. Here the nerve is exposed and cut. We hardly believe that this surgical procedure should be resorted to in spite of the expressed simplicity. Bleeding,

great mental strain, and postoperative discomfort are certain sequelae. These patients are frequently very advanced cases, and every consideration should be given to make them as comfortable as possible without resorting to surgery. If nerve injections are not effectual, it is best to resort to morphia and cocaine.

The removal of large tuberculomata may be accomplished surgically followed by cautery at the base. Although we have rarely followed such procedure, we feel it to be a very desirable method. The growth can be removed at one sitting with hardly more discomfort than the cautery produces.

Palliative treatment with sprays are included in the routine care of all our laryngeal cases. An oil spray containing menthol, camphor, and liquid petrolatum is used, as well as a two per cent cocaine spray where the symptom of dysphagia is present.

We have had no experience with heliotherapy at our hospital. The heliotherapeutic agents may be natural or artificial, and may be used locally or generally. Opinions vary as to its beneficial results. Strandberg²⁶ advocates general ultraviolet light (carbon arc). He reports that 113 out of 203 cases treated in this manner were cured, and most of the others improved. He also utilizes the cautery for many of these patients (all ambulatory). Miller,²⁷ utilizing the method of Wessely—a carbon arc lamp impregnated with a special metallic salt given locally by means of suspension laryngoscopy—reports a series of seventy-four cases, of which only two failed to respond. Here again, all his patients were ambulatory, and evidently not very sick subjects. St Clair Thompson does not find any benefit from light treatment. Cemach²⁸ finds that ulcerative processes show greatest improvement with the mercury vapor arc lamp. Underwood²⁹ feels that it is impossible to effect a cure by light treatment, but that it has its place in preparing a patient for cautery. Van Poole,³ having used ultraviolet treatment for about three years, concluded that the good results, if any, are psychological.

The use of radiotherapy has its advocates. Zange,³⁰ with ten years experience with this method, believes it valuable. He finds the cases best suited are those of

a productive nature. A great deal of care must be taken in the administration of the roentgen ray, and the dosage is very important.

Such procedures as thyrotomy and laryngectomy have been resorted to on rare occasions. Curettage has been more or less abandoned. Tracheotomy occasionally must be performed. In exudative lesions where glottic closure occurs, respiratory embarrassment warrants such surgery in spite of our knowledge that the tracheotomy wound may not close. In productive lesions with obstruction, we feel that the indication is the surgical removal of these lesions, if possible, and not a tracheotomy. However, in such a procedure one need be on the alert for the reaction of glottic edema necessitating a quick tracheotomy.

Epiglottectomy is occasionally performed where there is extensive ulceration. We prefer to use the cautery in such cases.

Collapse therapy is now extensively utilized for the treatment of the lung condition, and it is apparent from our own observations, as well as from those reported by others, that it has much therapeutic value to the tuberculous larynx as well. At one time tuberculous laryngitis was considered to be a contraindication to collapse. However, it is now known to have a favorable influence on the larynx. With the knowledge that the involvement of the larynx by the tuberculous process is brought about by direct contact with the sputum, and possibly by the bloodstream and lymphatics, it can reasonably be declared that the collapse of an involved lung reduces the amount of sputum, and in addition removes the lung, to a large extent, from the circulation. The number of bacilli reaching the larynx is in this way greatly reduced. Also, the decrease in cough and expectoration, which accompanies collapse, induces less trauma to the larynx.

Cooper and Benson⁹ treated 196 patients by collapse therapy (pneumothorax, thoracoplasty, and phrenic exeresis) and found laryngeal improvement in 40.6 per cent. They found that a successful collapse was very important, and that the ulcerated larynx did not respond as well as the nonulcerated. Dworetzky³³ reports his observations of 5382 patients treated

by collapse as follows. Only twelve developed the laryngeal complication, of fifty-six patients with laryngopulmonary tuberculosis, the larynx was arrested or cured in twenty-six, improved in nineteen, stationary in five, and unimproved in six. Retrouvay³¹ reports fifty-two cases of which ten were cured, seventeen were improved, eight remained stationary, and seventeen became worse. In this last group almost all the pneumothorax attempts failed. He also reports that in reviewing cases of pulmonary tuberculosis without laryngeal involvement, treated by collapse, it was found that in one out of 400, tuberculous laryngitis ensued.

Stevenson's³² results with collapse were very satisfactory. He observed forty cases, of which twenty-seven were cured or improved, eight stationary, and five worse. All these patients were in a sanatorium, having had the benefits of vocal rest as well as cautery in some cases. Thompson³³ reports nine cases of artificial pneumothorax with complete healing in six. We have treated fifty cases of laryngeal tuberculosis who had collapse therapy, forty-three of whom had pneumothorax, and seven phrenicotomy. The usual laryngeal care was given to all these cases, some of these received Chaulmoogra oil and some, galvano-cautery. Twenty-two were much improved, nine showed a slight improvement, and nineteen became worse. It is thus evident that collapse therapy is a very important aid in the treatment of the tuberculous laryngitis. It is impossible to evaluate the benefit of collapse alone in these cases, since local treatment was not abandoned.

Prognosis

To determine the prognosis of any given case, there are many factors that must be considered. The resistance of a patient, age, previous history, rapidity of onset of the symptoms, type of lung lesion, and the type of laryngeal lesion, are the determining factors.

With regard to the lung lesion, it is known that the more fibrotic the lung pathology, the less severe the laryngeal activity. The cases with soft caseous disease (the exudative type) usually develop an active edematous type of larynx which ulcerates rapidly and is difficult to

control. These latter cases offer a bad prognosis.

A very concise classification with reference to prognosis is presented by Heaf¹¹

- 1 Extrinsic (ulcerative and non-ulcerative)
- 2 Intrinsic (ulcerative and non-ulcerative)
- 3 Localized (ulcerative and non-ulcerative)
- 4 Lupoid (ulcerative and non-ulcerative)

Class 1 includes the arytenoid epiglottic cases—cases with massive infiltration and edema of epiglottis, and pyriform swelling of arytenoids. The lesions usually ulcerate, and the length of life is indirectly proportional to the area of ulceration. In the young adult up to thirty years of age, it is hopeless.

Class 2 comprises the corditic and inter-arytenoid infiltration. Prognosis is fairly good here owing to absence of dysphagia and good response to rest treatment. If there is extension to the arytenoids or ventricular bands, recovery is reduced about fifty per cent.

Class 3 Here, the lesion is confined to one side of the larynx or localized to two small areas on either side. These cases do well.

Class 4 This class is the lupoid type which includes the papillary, glandular, and smooth, defined tuberculomata, and offers a good prognosis.

Thus, the site, extent, and type of laryngeal lesion must be considered in arriving at an estimate of the probable chances of recovery. Also the institution of proper care for the lung condition influences prognosis. Patients receiving care in sanatoria, and especially cases who have received collapse therapy, may be expected to have a fairly good prognosis. Pregnancy, syphilis, and diabetes detract considerably from chances for recovery.

Conclusions

1 Of a series of 1719 patients with pulmonary tuberculosis, 245, or 14.2 per cent were found to have laryngeal tuberculosis as well. The largest percentage of laryngeal involvement is found in the third decade.

2 The sputum laden with tubercle bacilli is responsible for invasion of the larynx by direct contact.

3 Symptoms are of little account as an aid to diagnosis. Hoarseness may not be present in spite of cord involvement.

4 Indirect laryngoscopy is advisable.

both for examination and treatment for patients with laryngeal tuberculosis

5 Objective findings in the larynx are infiltration, edema, ulceration, necrosis, fibrosis, and tuberculomata

6 The electrocautery used with discrimination is, without question, the most effective therapeutic measure available
Chaulmoogra oil is a useful adjuvant

7 The superior laryngeal nerve is in-

jected with an alcohol novocain solution as a palliative measure for severe dysphagia

8 Collapse therapy has proved itself to be very helpful in the successful treatment of laryngeal tuberculosis. Local treatment, however, should not be abandoned

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References

- 1 Lederer F. L. and Fishman, L. Z. *Illinois Med Journal*, 66 448, 1934
- 2 Kemler, J. I. *Arch Phys Therapy*, 15 24, 1934
- 3 Van Poole, G. M. *Arch Otolaryng*, 20 152, 1934
- 4 Thompson, St. Clair. *Tuberculosis of Larynx Ten Years Experience in a Sanatorium, His Majesty's Stationary Office*, p. 9, 1924
- 5 Looper, E. A. and Schneider, L. V. *J.A.M.A.*, 91 1012, 1928
- 6 Dworetzky, J. P. *Tr Am Laryng, Rhin and Otol Soc* 40 66, 1934
- 7 Vandevere, W. E. *Am Otol Rhin and Laryng*, 43 572, 1934
- 8 Hayes, E. W. *Southwest Med* 5 1, 1921
- 9 Cooper, A. T. and Benson, O. O. *Am Rev Tuberc* 25 187, 1932
- 10 Fetterolf, George E. *Laryngoscope*, 26 37, 1916
- 11 Heaf, F. R. G. *Brit Med Journal*, 2 966, 1933
- 12 Coakley, C. G. *Diseases of the Nose and Throat*, Philadelphia Lea and Febiger p. 468 1914
- 13 Spencer, F. R. *Laryngeal Tuberculosis*, Philadelphia, J. B. Lippincott Co., p. 4, 1927
- 14 Wood G. B. Jackson C. and Coates G. M. *The Nose Throat and Ears and Their Diseases* Philadelphia W. B. Saunders Co., p. 869 1929
- 15 Torin, David I. *Arch Otolaryng* 19 196 1934
- 16 Schught, Henry P. *Ibid*, 21 175, 1936
- 17 Wilkinson, R. W. *Ibid*, 16 337, 1932.
- 18 Wilson, George. *Physical Ther*, 15 29, 1934
- 19 Wolf, Geo. D. *J.A.M.A.* 89 263, 1927
- 20 Hirsch, Caesar. *Laryngoscope*, 45 274, 1935
- 21 Dworetzky, J. P. *Am Rev Tuberc*, 3 544, 1919
- 22 Manasse, (Quoted by Van Poole) *Arch Otolaryng*, 20 153 1934
- 23 Stevenson, R. Scott. *Brit Med Journal*, 2 963, 1933
- 24 Dmitry, T. J. *Eye, Ear, Nose and Throat Monthly*, 12 495, 1934
- 25 Savitt, L. and Soboroff, S. *Illinois Med Journal*, 66 444, 1934
- 26 Strandberg, O. *J.A.M.A.* 90 1595, 1928.
- 27 Miller, Jcs. *Arch Otolaryng* 13 326, 1931
- 28 Cernach, A. L. *J Laryng and Otol*, 48 326 1933
- 29 Underwood, E. A. *Brit J Tuberc*, 27 104 1933
- 30 Zange, J. Quoted by Wood, G. B.: *Arch Otolaryng* 21 218 1935
- 31 Retrouvay, H. *Rev de Laryngol, d'Otol et de Rhinol*, 51 469 1930
- 32 Thompson St. Clair. *Lancet*, 1 963, 1927
- 33 Dworetzky J. P. *Am Otol Rhin and Laryng* 39 1111 1930

THE BLINDNESS OF TOBIT

Peculiar coincidences are encountered in health superstitions and beliefs. The blindness of Tobit and its cure, as told in the *Apocrypha* is an interesting example, says Charles A. Bahn, M.D., in the *Sight Saving Review*. Tobit, the father of Tobias, while reclining in the courtyard of his home, was struck in the eye by the excrement of a bird flying overhead. Blindness resulted. The recovery of his sight, as quoted from the book of Tobias, is even more interesting.

Chapter 6, Verse 2 "When Tobias went down to wash himself in the Tigris, a fish leaped out of the river, and would have devoured him. The Angel of the Lord told him to take out the gall, and to put it up in safety." Verse 6 "Tobias asked the Angel what was the use of the gall." Verse 8 "As for the gall," said the Angel, "it is to anoint a man who has witten in his eyes,

and he shall be healed." Chapter 7, Verse 11 "Tobias took hold of his father and stroke of the gall in his eyes, saying, 'Be of good hope, Father.'" Verse 12 "And when his eyes began to smart, he rubbed them." Verse 13 "And the whiten fell away from his eyes, and when he saw his son, he fell on his neck."

Tobit's affliction would probably be recognized by the modern eye physician as an ulcer of the cornea caused by the pneumococcus, a germ often found after an injury of the eye by contact with something unclean. The coincidence lies in the fact that bile salts, which are contained in gall, are among the very few drugs which dissolve pneumococci. The use of this same drug for the same infection of the eye is the subject of very recent medical experiments. In short, this new discovery apparently dates back to the cure of Tobit.

ORTHOPEDIC ASPECTS OF POLIOMYELITIS

100 Cases Treated from Onset

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Object

This work was undertaken with the object of determining the outcome from an orthopedic viewpoint, of the ordinary case of infantile paralysis, when treated under reasonably favorable conditions of medical and other care. A review of such series from the aspects here considered, has not been found in the recent literature. Similar work was done by Lovett and his associates,¹⁻⁴ beginning with the great epidemic of 1916. These workers reviewed thousands of cases under varying conditions and laid down the principles of efficient treatment as carried out today. However, actual statistical proof of the efficacy of this treatment is not clearly stated anywhere.

Selection of Cases

All the cases of acute, subacute, or residual poliomyelitis entering Bellevue Hospital from January 1931 to 1936 were reviewed, amounting to over 400. However, in excluding those not treated from the early stage, those not paralyzed, and those not adequately followed, this number was reduced to 100 cases. The hospital and dispensary records were carefully examined, and where possible recent examinations were obtained. 1931 corresponds to the most recent major epidemic of poliomyelitis in New York.

While a few of the cases in the 100 were mild and rapidly healed, the greater number, by far, were the more severe type, hospitalized for a long period, and followed and treated with the aid of the excellent associations for the aid of crippled children. In Manhattan, most of the acute cases of infantile paralysis are transferred to Willard Parker Hospital during the contagious period. When this is over, the majority of the cases with residual paralysis are referred to Bellevue Hospital, unless they can afford pri-

vate or other institutional care. These cases are then hospitalized as necessary on our special wards under the care of the orthopedic service, and on discharge, are treated in the orthopedic outpatient department. Many cases, especially the mild ones, have failed to return, some have drifted to other clinics or have moved away from the city, as is common in the population of a large city hospital. This series includes only those adequately treated and followed, the majority from one to five years, and includes some of the most severe cases in New York, not actually fatalities, every one being definitely paralytic.

General Outline of Treatment at Bellevue

This corresponds quite accurately to the outline given in A.M.A. Committee report on Poliomyelitis during the 1933 annual session.⁵

The course of this disease may be divided into three stages—the acute, convalescent, and residual. With the first stage, including the febrile, meningeal, and early paralytic periods, we are not concerned here. Our cases were largely referred from Willard Parker Hospital in the early second stage of convalescence.

This stage extends from the stage of paralysis, four to five weeks after the onset of the disease, to approximately two years later, when, as a rule, the maximum muscular improvement has occurred in the paralyzed parts of the body. The residual stage is generally considered to begin about two years after the onset.

Treatment in the convalescent stage includes an early period of absolute immobilization of the limbs or even the entire body. The termination of this period is judged by disappearance of the commonly present muscle hyperesthesia,

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which often lasts, in varying degrees, three to six months. However, the degree of splintage is mainly determined by the assumption of habitual deforming attitudes and fatigue of the wholly or partly paralyzed muscles. When splints may be temporarily removed, muscle training, massage, and, especially in severe cases, warm pool exercises are begun and carried out daily. All our cases had such treatment in the hospital, and later in the dispensary.

When the recovery has proceeded far enough, especially in the trunk, and the question of ambulation is raised, the same care is required in preventing deformity, stretching of paralyzed muscles and fatigue, as before. This is done by bracing with mechanical apparatus. Cases of trunk paralysis are difficult to splint properly except in bed and these are kept recumbent for as long as necessary to regain their power, even to a year or more. Lovett^{1,2} has maintained that all muscle exercises should be non-weight bearing for one year in all lower extremity and trunk paralysis. This is difficult to do in practice. We therefore use braces or plaster splints where necessary to accomplish the aims of treatment.

The most convenient early splint material is plaster combined with the use of a fracture board. Subsequently, when physiotherapy and exercises are begun, a removable splint is required, and it is then that the danger of deformity is increased. In this series, the prevention of deformity has always preceded in importance the use of massage and swimming pool. Circular plaster is resorted to without hesitation, for periods up to two to three months, above all in foot deformities. In resistant equinus, bivalved plasters have been found inadequate to prevent deformity. To prevent hip deformity, plaster spicas or transverse wings preventing rotation of ordinary plaster leg boots were used, the boots reaching above or below the knee as required.

The type of braces used after the period of absolute splintage is over depends on the location and degree of muscle paralysis. They are frequently combined with some type of removable splint to be used in bed at night. At all times, no hesitation is felt in applying circular plaster again if deformity warrants it.

Braces at best are not efficient in correcting deformity, or even preventing it when powerful deforming forces are at work, but they are the best means short of plaster. During this period the cases are carefully observed with a view to early manipulative or operative intervention, if required, usually after two years in the residual stage.

Procedure

This paper will not deal with the effects of serum or other specific therapy, nor with the individual effects of physiotherapy, swimming pool, or other special treatment. We have selected certain criteria as indicating relative success and failure, notably incidence of deformity, operations required, necessity and types of bracing, and general function especially in the outstanding matter of walking. Our purpose here is to present statistics of our cases in these and other respects.

In addition, in searching the literature, besides the large series of cases reported on in many respects by Lovett et al.,^{1,4} certain other studies were encountered useful for comparison. H. G. Dunham⁷ reported a five year follow-up of 300 cases from the Brooklyn 1916 epidemic. Hatt and Hough⁸ in 1930 reviewed all the cases of poliomyelitis admitted to the Shriners' Hospital at Springfield, Mass. in 1925, when it first opened. These consisted of 116 cases, mainly from rural districts, eighty-five per cent in the residual or chronic stage, fifty per cent untreated, and only ten per cent adequately treated. It is considered that this is a reasonably, but not entirely, comparable series to demonstrate what is to be expected from improper or no treatment, and what is to be expected in a prognostic way in well and poorly treated cases. Wherever possible, and significant, such a comparison has been made.

Statistical Survey and Comment

Incidence by years, age, and sex

The figures in Table I mirror those of New York City, in that 1931 and 1935 were the years of the largest epidemics, with a smaller rise in 1933.

In most cases time in the hospital is a function of the severity of the case, although in some cases parents insisted on

removing their children for home care prematurely. It was of little consideration in these children except at the very height of the epidemic in 1931, when the ward space was needed for only the very severe and most recent cases. Trunk paralysis, demanding long periods of recumbent treatment and under water muscle training, involved the longest periods. Over one-quarter of the cases

were in the hospital for one year or more, receiving their braces and becoming ambulatory to a large extent before discharge.

Thirty out of forty-two of the 1931 cases were followed the full five year period. Practically all of the 1935 cases included in the study, have been followed up to date. Only two cases were followed as little as six months, and in these, though definite palsy had been present at onset, enough recovery had taken place when lost track of to indicate complete cure. Several of the cases are still in the hospital, since the acute stage

TABLE I

Age	1931	1932	1933	1934	1935	Total
0-2	16	3	5		4	28
3-5	15	4	8	2	7	36
6-8	7		2		8	17
Over 9	4	3	3		9	19
	42	10	18	2	28	100

Male 61 Female 39

TABLE II—PARTS INVOLVED AND RECOVERY

Face	Paralysis at First Exam		Final Exam	
	2	0		
Trunk	55	24	56%	Recov
Very Severe	9	16%	5	21%
Severe	35	63%	7	29%
Moderate	11	21%	12	50%
Extremities	183	124	32%	Recov
Lower	128	98	24%	Recov
Severe	71	55%	32	35%
Moderate	57	45%	66	65%
Upper	55	26	53%	Recov
Severe	25	46%	11	42%
Moderate	30	54%	15	58%
Right Upper	29		10	
Left Upper	26		16	
Right Lower	67		48	
Left Lower	61		50	

TABLE III—DEFORMITIES

	Halt and Hough	Bellercue
Number of cases		
No deformity	116	100
Single deformity	14	43
Multiple deformity	37	31
Number of deformities	65	26
Average per patient	275	78
Total deformities	4	3
Average for series	312	109
% Deformed	2	7
Distribution	89%	57%
Upper extremity		
Wrist	11	17
Elbow	1	4
Shoulder	5	
	5	13
Trunk (Scoliosis)		
Pelvis	19	10
		1
Lower extremity		
Hip	282	81
Knee	34	2
Foot	89	28
	159	51

Dunham 300 Cases 619 Deformities 2 per Pt, 5 year F up
 Lovett Scoliosis 7% Recent Cases 30% old Cases

Recovery from paralysis

Lovett and his coworkers,⁵ by individual muscle rating, have shown that a large proportion of recovery occurs in most poliomyelitis cases, amounting in the first year to sixty per cent in well-treated cases, and forty-four per cent in poorly treated ones. Legg⁶ has shown that under ideal treatment, this improvement continues at a slowed rate, but progresses indefinitely, even years after the attack, so that, in a selected group of non-operated, well followed patients, at the end of nine years, there was eighty per cent improvement in muscle power in the good cases, but only fifty per cent in the poorly treated ones. In a large number of other cases, in the third and fourth years, Lovett³ demonstrated an actual loss of muscle power, especially in the lower limbs, due to occurrence of deformity, poor care, overuse, and overfatigue. In the individual muscle groups, he has shown that the neck and cranial group becomes practically normal, the trunk becomes normal in over fifty per cent, the abdomen being considerably less likely to improve than the back. Interestingly enough, abdominal paralysis did not affect pregnancy or labor in cases coming to delivery. The arm was found much more likely to recover than the leg, which has only fifty per cent the chance of the former. In the arm, the deltoid is under the most strain, and runs the least chance to recover, the likelihood of cure increasing as the hand is approached. In the lower extremity, the hip muscles and peroneals are most likely to recover, and the thigh extensors and tibials least. When coupled with the high incidence of tibial and deltoid paralysis, this indicates the expected

and actual frequency of certain deformities, i.e., valgus, equinovalgus, and flail shoulder

In this series, the limbs as a whole were considered, subdividing them only into severe and extensive vs. mild and localized paralysis. Fifty-six per cent of our trunk cases recovered entirely, (very comparable with Lovett's 54%) and twenty-four per cent of the lower extremities as compared with fifty-three per cent of the upper. Nearly all the patients improved somewhat, and four-fifths of the trunk and upper extremity cases, and three-quarters of the lower extremity cases improved enough to change groups, that is, to improve from the severely to the moderately paralyzed, or from the latter to the cured group. In one series of over 1800 cases, Lovett demonstrated that both lower extremities recovered equally, but that the right upper recovered more than the left. This is shown in Table II as well, though the figures are too few to hold statistically. He attributed this to the fact that in right-handed people, the right upper extremity gets more active exercise and use, of non-weight bearing or strain producing character, than the left, and likewise both upper as compared to the lower extremities, when ambulation begins. He therefore recommended a prolonged period of non-weight bearing in lower limb paralysis, with long periods of exercises in bed and pool, regarding a year as a desirable minimum.

Deformities

Table III really demonstrates the difference between the good results of proper treatment and the bad in neglected cases. It is a comparison of the incidence of deformities in our series with those in the cases of Hatt and Hough. The difference is evident both in the total number of deformities, the number of patients and limbs deformed, and the number of deformities per patient. In Dunham's series of 300 patients, not personally treated and followed by him, there were a total of 619 deformities observed, an average of 2.1 per patient, and these did not include some of the categories of deformity in the other two groups.

In addition to the quantitative difference in deformities, there was a great qualitative difference difficult to describe.

In the relatively untreated series, the deformities were largely fixed and severe, partly due to time elapsed, whereas, in the Bellevue group, they were often only deforming tendencies with manual correctability. Thus, in the scoliosis cases, the former series had nineteen organic curves, many of severe degree, while the latter series has but ten of which six are still functional curvatures. The remarkable thing is the almost complete absence of severe and very disabling hip flexions, abductions, and knee flexion contractures present in profusion in many of the older series and in all groups of

TABLE IV—OPERATIONS, WHOLE SERIES

	Hatt & Hough	Done	Bellevue Advised	Total
Number of cases	116			100
No. operated	84			38
No. operations	194	44	28	72
No. per pt. seen	1.7			7
No. per pt. operated	2.3			1.9
Distribution				
Stabilization	65	35%		38 54%
Feet	61	19	8	27
Shoulder	3	2	7	9
Remainder	1	1	1	2
Tendon transp.	44	23% 8	3	11 15%
Fasciotomies	35	18% 2		2 18%
Osteotomies	24	12% 3		3 45%
Tendon length	13	7% 5	2	7 9%
Tenotomy				
Miscellaneous	15	9% 5	7	12 16%
Bone-Block				
Recurvatum, etc.				

untreated cases. This demonstrates conclusively that these deformities are largely, if not entirely preventable. The deformities least amenable to prevention, and most dependent on the presence of unbalanced muscle pull, are seen to be those of flail shoulder, scoliosis, and in the greater number of foot cases. Nevertheless, even in these categories, treatment lessens the number and often the severity of the disability.

Operations

The enumeration of operations and their relative classification in the two series demonstrates again the benefit of treatment in reducing the number of operations to be required, by reducing deformity. This is shown in the total number of operations done, and the number per patient (Table IV). Despite inclusion of operations advised but not yet

done, it is likely that with time, many more operations will be performed on our cases. This applies also to the comparative series of Hatt and Hough, which consists only of the operations on those cases done in one year, 1925, and reviewed in 1930. The relative emphasis, in our series, on stabilizing or arthrodesing bone operations, as opposed to tendon and soft tissue operations, indicates the present trend in most orthopedic clinics in the surgery of infantile paralysis. Although this is not a paper on operative results, it is interesting that most of the tendon operations done here were inadequate in stabilizing the joint or extremity, and required, or will require,

TABLE V—FUNCTIONAL ANALYSIS, AMBULATION

	Hatt and Hough		Bellevue		Total
	Unilat	Bilat	Unilat	Bilat	
Number in series	116				100
No. severe palsy lower extremity	98	37	27		64
Unable to stand	3		3		6
Stand with braces support	3		1		4
Stand with braces alone	1				
Unable to walk at all	4				4
Walk with braces and support	6		7		13
Walk with crutches alone	13		1		14
Walk with one crutch	2				2
Unable to walk or with crutches or support	32				32
Walk with one brace		15	5		20
No bracing	59	17	6		82

Lovett 180 Cases, After Three Years All Walked Two very Little Requiring Braces and Crutches Etc.

further bone operations to accomplish the purpose *

Ambulatory Function

Table V gives a rough idea of the ambulatory function of our patients as compared with the untreated Massachusetts group. Of the Bellevue cases, there were but four unable to walk about, and eight more required support via the upper extremities, making twelve in all necessitating use of upper extremities in attempts at ambulation, along with braces. Of these four, three succumbed to pneumonia, one and a half to two years after the paralysis, being completely bedridden until death. One case, a quadriplegic, with extensive paralysis in all limbs, fol-

* Since tabulation of these cases there have been done three tendon achilles lengthenings, one tendon transplantation and loop operation, four subastragal arthrodeses, and two biceps transplants. These should be removed from the advised to the completed stage.

lowed for five years, is just standing with braces and upper extremity support. The seven cases walking with upper extremity support are mainly young children learning to walk.

In the untreated series, there were thirty-two cases requiring the use of crutches to get about at all, though fifteen of these are without braces. Eleven of the cases were unable to walk even with support, and were confined to creeping, the wheel chair, etc. Lovett, in one treated series, had 180 cases who all walked after three years, two slightly

Plasters and Braces

Table VI gives a general idea of the types and number of splints used in this series. Little more need be said than is indicated by the figures.

Miscellaneous Statistics

Other figures were also obtained by analysis of the cases, with the results of treatment less striking and more technical in interest.

Trunk paralysis. All the cases with trunk paralysis were examined separately, and nineteen of the severest cases chosen. Of the ten scolioses, four were organic and in one case prophylactic spine fusion was urged. Six cases were functional, but likely to become organic despite bracing. This is in accord with Lovett² who found in recent cases (up to two year follow-up) only a seven per cent incidence, whereas in old cases (three years and up), there was a thirty per cent occurrence of scoliosis. All trunk braces once applied appeared to be required for the full length of the follow-up period despite some muscle recovery in these cases.

Five cases of obviously asymmetric paralysis of the abdomen were present, including two of the organic and two of the functional scoliotics, with one undeformed as yet though braced. This asymmetry is considered one of the main causes of paralytic scoliosis.

Two cases demonstrated the different types of pelvic obliquity—one due to unequal paralysis of the abdominal and posterolateral flank muscles, allowing the corresponding side of the pelvis to droop, the other due to the fixed hip abduction contracture, released by operation.

Upper extremities. The upper extremities were also analyzed separately. Twenty-one were severely enough paralyzed to require splintage. In the end there were ten bad

TABLE VI—BRACES

Upper extremity (Abduction)	18
Knight spinal braces	7
Scoliosis crutch later	2
Abdominal corsets	5
Lower extremity	73
Long leg with pelvic or body	36
Long leg alone	19
Short leg alone	18
Still being worn	
Upper extremity	0
Trunk	8
Lower extremity	45
Plaster splintage in the early stages	81
Of 100 cases 77 braced	

TABLE VII—LOWER EXTREMITY DEFORMITIES

	Hatt and Hough	Bellevue
Hip	34	2
Dislocation	1	
Flexion	33	1
Abduction		
Knee	89	28
Flexion	30	5
Knock-Knee	36	12
Tibial Torsion	19	
Recurvatum	4	11
Foot	159	51
Equinus (Dropfoot)	10	13
Equinovarus	6	2
Equinovalgus	42	11
Equinovarus	27	3
Equinovalgocavus	5	
Equinovarcavus	3	2
Calcaneus	5	4
Calcaneocavus	3	
Calcaneovalgus	23	36
Calcaneovarus	3	3
Calcaneovalgocavus	1	
Calcaneovarcavus	1	
Varus	8	1
Valgus	9	6
Cavus	9	1
Cavovarus	3	

SECONDARY OR POSTOP DEFORMITIES
 1 Equinus and recurvatum posttenodesis
 2 Equinovarus postastraglectomy
 5 Mild Dropfeet after subastragalar arthrodesis

TABLE VIII—DEFORMITIES AND OPERATIONS
FEET

Deformity	No	Done	Advised	Total
Equinus & Dropfoot	13	3 T. A. length. 1 Arthrodesis 1 Bone-block	2 1	5 3
Equinovarus	2	5 Arthrodeses	2	7
Equinovalgus	11	2 Loop, etc. 1 T. A. length 4 Arthrodeses	2 1	4 5
Equinovarus with Cavus	5	1 Bone-block 1 Tib. ant. trans. 7 Astraglect	1 2	2 9
Calcaneus with Valgus, varus or Cavus	11	1 Tenodesis T. A. 2 Sec. arthrodeses	1 2	1 2
Varus	1			
Varocavus	1			
Valgus	6			
Cavus	1			
	29		11	40

Bone or stabilizing operations 28, tendon etc. 12
 Dangle foot 12, Operated 0 advised operation 3
 64 with significant paralysis of lower extremity
 98 extremities
 63 deformed or dangle feet in all, 43 operated or advised operation.

shoulders, of which two have been fused, and seven more considered to have enough hand muscles to justify this intervention when feasible. Other operations were done on the elbow, wrist, and tendons, but do not warrant individual consideration, except that, even in the upper extremity, the bone operations were most successful. Abduction braces were applied as early as possible and removed in from three to eighteen months, averaging eight and one half months.

Lower extremities. In the lower extremity, examination of muscle paralysis and the incidence of predictable deformity, as a result of overaction of persistent muscles, was seen to bear out the expected in nearly all cases. This was in line with a table of causes of foot deformities given by Lovett.¹ The incidence of the individual deformities is given in Table VII along with a few secondary or postoperative deformities, which were mild. These correspond with those of Hatt and Hough, though they are somewhat less in number. The relation of the type of deformity to the type and number of operations done and advised is given in Table VIII indicating that calcaneus and equinovarus demand operation in practically all cases, and equinovalgus in most, whereas the other deformities are less disabling.

Where seventy-three extremities were braced, forty-five (62%) are still wearing some kind of brace. This is due to the large incidence of fourteen cases with bilateral long leg braces hooked to a pelvic band or back brace, to date.

Conclusions

1 Careful and persistent after-treatment has been again statistically and definitely demonstrated to be of great value in decreasing incidence of deformities and operations required in postpoliomyelitis management.

2 Certain deformities are most difficult to avoid despite proper prophylaxis, notably flail shoulder, scoliosis, and foot imbalances of most types.

3 Gross hip and knee deformities are almost entirely preventable.

4 Even in the unavoidable types, much can be done to minimize the degree of deformity and get early correction where necessary by operations.

5 The three enemies of good function are fatigue, stretching of paralyzed muscles, and deformity.

6 Only four per cent of our cases

were bedridden and totally nonambulatory, and one of these has hopes for the future. There were three deaths.

7 The general outlook in paralytic cases, even of the greatest severity, is never as bad as frequently pictured, and one may be fairly optimistic about the ultimate outcome of the ordinary case.

1133 PARK AVE.

References

- 1 Lovett, R. W. *Treatment of Poliomyelitis*, 1917
- 2 Idem *J. A. M. A.*, 69 168, 1917
- 3 Idem *Ibid.*, 77 1941, 1921
- 4 McAusland, R. *Treatment of Poliomyelitis*, 1927
- 5 Legg, A. T. *J. A. M. A.*, 107 633 1936
- 6 Committee on Poliomyelitis Exhibit, *J. A. M. A.*, Principles of Management, 1933
- 7 Dunham, H. G. *J. A. M. A.*, 80 224, 1923
- 8 Hatt and Hough *New Eng J Med.*, 203 561 1930

Case Report

JUVENILE DIABETES IN LABOR

Treated with Crystalline Insulin

BARNETT ALPERT, M.D. and EDGAR A. FERGUSON, JR., Brooklyn

G. P., white female, age sixteen and a half years, known diabetic for six years, has been under crystalline insulin therapy for nine months.

Height was 5 feet 4 inches, weight 163 pounds. Physical examination was essentially negative. Blood pressure throughout puerperium ranged from 114 to 120 systolic and from 70 to 100 diastolic.

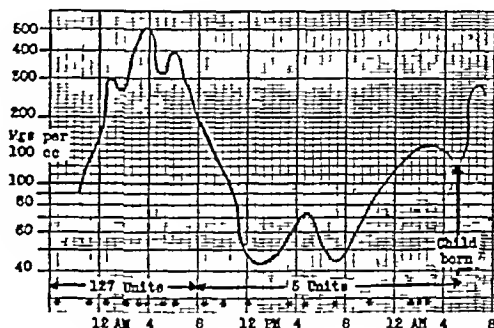
Diet throughout entire pregnancy carbohydrates 150, protein 50, fat 40, Insulin 100 units daily.

The duration of labor was thirty-seven hours. For the first twenty-four hours, dosage was increased to 127 units. During the next thirteen hours blood sugar and urine sugar were low and the insulin was withheld, only five units being administered during this period.

A healthy child was born spontaneously, weight was 7 lb 11 oz.

Examination of the blood from the umbilical cord revealed a blood sugar of 130 mg per 100 cc and the blood sugar of the child was 95 mg per 100 cc.

After labor, the patient was again stabilized on the same diet, carbohydrates 150, protein 50, fat 40.



Following shock of labor, on November 13, patient developed acidosis and coma and 173 units of insulin were given. The insulin resulted in relief of symptoms.

On November 14, patient required 100 units of insulin.

From November 15 to 26, patient was adequately controlled with fifteen units daily.

The dose of insulin was increased fifteen units weekly until patient was again stabilized on 100 units daily.

55 E 21 St

The Section on Otolaryngology of the New York Academy of Medicine will hold its October meeting at 8 30 P.M. on Wednesday, the 6th, instead of on the usual third Wednesday of the month. This change of date was made so as to coincide with the itinerary of Professor Maurice Sourdille of the Department of Surgery in the School of Medicine at Nantes, France.

Professor Sourdille will lecture on "New

Technics in the Surgical Treatment of Severe and Progressive Deafness from Otosclerosis, Indications, Choice of Method, and Results. A Report of over Three Hundred Operations." The lecture will be in English and illustrated by lantern slides, and will be prefaced by a foreword and introduction by Dr. Edmund Prince Fowler who, in the absence of Dr. Clarence Smith, will act as chairman of the meeting.

HYPOPARATHYROIDISM WITH PREGNANCY

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State of New York, Department of Mental Health*

Chronic hypoparathyroidism may follow surgical removal of the thyroid gland if the parathyroids have been inadvertently damaged. These cases have proven fatal in a number of the cases. In some cases, hypoparathyroidism is temporary, suggesting that enough parathyroid tissue was left which has undergone hyperplasia or recovery of a proper blood supply has occurred to compensate for that lost. In hypoparathyroidism cases, the blood calcium falls while the blood phosphorous rises, which may result in tetany. With proper medication, these symptoms may be relieved. The cause is the important thing in the prognosis. If no parathyroid tissue is left, medication may have to continue as long as the individual lives in order to maintain a normal blood calcium and phosphorus level.

Recently we have seen a patient suffering from hypoparathyroidism occurring about two months after subtotal thyroidectomy. Several blood studies were done and we were able to check these rather closely with the treatment given. While we were following the patient closely with special emphasis on the blood calcium and phosphorus, she became pregnant. Such an occurrence during hypoparathyroidism may be especially dangerous to both mother and offspring. We have found no records in the literature of such a condition occurring.

Mrs K M, thirty-three years old, came in (December 1934) complaining of thumping of her heart, fatigue, and a goiter for about one month. She had a baby about six months old. She had lost about forty pounds since the birth of her child, and was more nervous than she had been. Examination showed a slight uniform enlargement of the thyroid and multiple nodules throughout. The eyes were prominent but there were no other eye signs, and there was a slight tremor. Her pulse was about

ninety-five per minute, but regular. The basal metabolism test in April 1935 was plus fifty. On May 23, 1935, a thyroidectomy was done. The specimen was sent to the laboratory and, on section, a diagnosis of exophthalmic goiter was made.

About two months after the operation, she had an epileptoid attack with frothing and biting of tongue but no spasms, and she was cyanotic. She was seen a few days later by Dr Webb, who questioned the patient and her mother as to symptoms at the time of the attack. He suggested the possibility of a parathyroid deficiency and advised the family physician to continue calcium lactate which he had suggested to him on the day of the attack. She returned September 13 and was sent to us for blood calcium and phosphorous studies. As can be seen in the accompanying table, these figures showed marked disturbance of calcium metabolism and proved the diagnosis of hypoparathyroidism. November 5, she had another attack after which she was given parathyroid extract by hypodermic for several doses. November 27, blood studies were repeated, the calcium was still low and the phosphorous high.

Because of Dr Webb's illness, the patient was turned over to us for care on December 9. On her way home from the laboratory, having had no breakfast, she had another fainting attack but has had none since then. She was given calcium lactate and cod-liver oil as can be seen in the table and asked to return each week. On December 17 and 24, there had occurred definite improvement in the blood calcium and phosphorous. By letter on December 26, she was told to reduce the dosage of medicine, since the calcium had reached 110 mgms and the phosphorous had come down to 49 mgms per one-hundred c c blood.

She was seen only once in January (1936) and again on February 15 when she stated that she had not menstruated in January and was possibly pregnant. Because of the normal calcium (115 mgms) and phosphorous (20 mgms) she was advised by letter to reduce the calcium lactate and cod-liver oil. On March 23, the obstetrician reported to us that the patient was pregnant and wished information on her condition and for us to continue medical care. We saw her again in April and in July

We are indebted to Dr C. W. Webb of Newark, N. Y., for seeing the patient and for his notes on the case. The authors also wish to express their appreciation to Dr C. L. Vaux, Supt. of Newark State School, for many courtesies while following through the course of this patient.

when we felt it advisable to increase the calcium lactate. The patient was then returned to Dr Webb's care and not seen again until November 25 when the baby was seven weeks old. She had gone through a normal pregnancy and delivery and a normal child was born.

Discussion

The diagnosis of hypoparathyroidism after goiter operation is usually not difficult. However, this deficiency is usually made manifest quite soon after goiter operation. In this case, no definite symp-

eight days later (Dec 17) after large dosage of calcium and cod-liver oil, the calcium had returned to normal and the phosphorous had been reduced. After four weeks (January 9, 1936), the blood phosphorous had also reached a normal level. From then on until January 12, 1937, the patient maintained normal levels for calcium and phosphorous under the calcium lactate-cod-liver oil treatment. A normal regular diet was suggested, with one restriction, that two glasses of milk per day be taken.³

TABLE I—BLOOD STUDIES AND TREATMENT

Date	Clinical data	Blood		Treatment
		calcium	Phosphorus	
May 23 1935	Goiter operation			
July 26	Epileptoid attack			
Aug. 2				Calcium given by mouth (amount?)
Sept. 13		6 0	6 2	
Nov. 5	Fainting attack	7 5	6 0	Parathormone hypos (no record of amount)
Nov. 27		7 5	5 7	
Dec. 9	Fainting attack on way home from laboratory			Calc. lactate 1 tea- spoonful every 2 hrs from 8 A.M. to 10 P.M.
	Exophthalmos.			Cod-liver oil 2 tea- spoonful a.c.
	Chvostek + Trousseau +			
	Chvostek — Trousseau —			
Dec. 17		9 0	5 2	
Dec. 24		11 0	4 9	
Dec. 26				1 teaspoonful 4x day
Jan. 9 1936		9 5	3 1	1 teaspoonful a.c.
Feb. 15	Patient stated she may be pregnant	11 5	2 0	
Feb. 17				1 teaspoonful a.c.
Mar. 23	Obstetrician confirms pregnancy			1 teaspoonful b.d.
Apr. 21		10 5	3 0	
July 7		11 5	3 4	2 teaspoonful b.d.
Oct. 8	Baby born			1 teaspoonful b.d.
Nov. 25		12 0	3 3	
Nov. 26				1 teaspoonful daily
Jan. 12, 1937		10 0	4 5	1/2 teaspoonful daily

toms developed for about two months following the operation. However, from the Mayo Clinic,¹ records of a case, which did not begin until two years after thyroidectomy, have been published. These cases may, at first, offer some confusion in diagnosis. Boothby² has stated that post-operative parathyroid insufficiency is infrequent in man.

With symptoms of hypoparathyroidism, treatment was instituted in our case to bring up the calcium level and a reversal of the phosphorous level of the blood. Dr Webb had advised the family physician to continue with calcium by mouth after her first fainting attack July 26. Later, after a second "spell" in November, Dr Webb gave parathormone by hypodermics for a few doses. As can be seen in the table, neither the calcium by mouth nor parathyroid extract had aided materially. This is also proven by the fainting attack December 9. However,

A very interesting thing occurred during the time she was on calcium lactate-cod-liver oil therapy. On February 15th, the patient stated that she might be pregnant, later confirmed by the obstetrician. In October, a normal child was born. From the data, we judge that the pregnancy occurred just about the time her blood calcium attained its normal level. It would be interesting to speculate what would have happened to the pregnancy had the patient not received proper treatment and the blood calcium been subnormal when pregnancy occurred, and what would have happened to the fetus in the later months of pregnancy. With pregnancy, there is a greater demand for both calcium and phosphorous in behalf of the fetus, especially in the later months when ossification begins. The minerals present in a normal diet³ should ordinarily be enough to take care of such a condition. It is difficult to give a diet of high calcium

and low phosphorous It may be better then in these cases to give normal diets, which contain some calcium and then to make up the extra calcium necessary by medication, rather than to increase too greatly the high calcium foods which usually also have high phosphorous content If insufficient amounts were absorbed, however, the pregnant mother would be robbed of her calcium by the developing fetus, with resulting bone decalcification In this case, however, the patient's calcium and phosphorous levels were restored to normal and maintained by calcium lactate and cod-liver oil The vitamin D increased the absorption of calcium in the small intestine In this manner, the calcium demands of a growing fetus were met and the patient was relieved of her former symptoms of parathyroid tetany due to the goiter operation

Summary

A case of chronic parathyroidism due

to a goiter operation was relieved of symptoms by calcium lactate-cod-liver oil therapy A reversal to normal of the calcium and phosphorous content of the blood was brought about Pregnancy, occurring at this time, was carried to full term with the birth of a normal child The patient still continues treatment with calcium lactate and cod-liver oil but in decreased amounts Further calcium and phosphorous studies are contemplated with a view of discontinuing treatment, if possible If not, then treatment along these lines must continue with occasional checks on the calcium and phosphorous content of the blood to maintain them at their normal levels and prevent hypocalcemia from occurring

NEWARK STATE SCHOOL

References

- 1 Boothby W M and Woltman, H W *Proc Staff Meetings Mayo Clinic*, 10 87, 1935
- 2 Boothby, W M *Ibid*, 6 535, 1931
- 3 Freyburg, R. H., Grant, R. L., and Robb, M A *JAMA*, 107 1769, 1936

DEFINITE LIMITATIONS OF FIRST AID"

It is true that we must commend the campaigns to make the public health-conscious and programs to educate laymen how to use first aid methods in treating injuries and disabilities, pending the arrival of a competent physician They have their place if they are conducted cautiously

But it must be recognized that danger lurks in projects which place too much reliance in the knowledge and skill of those who have not had medical training Those who head campaigns involving public education in medical and public health matters and instruction of laymen concerning medical methods would do well to emphasize that there is no substitute for the knowledge and skill of the competent medical man and that self-medication and first-aid by laymen are merely stop-gap procedures, remarks the *Ohio State Medical Journal*

A good point is raised by an Ohio physician who has been taking an active part in instructing first-aid classes of the American Red Cross Although he recognizes the value of this activity by the Red Cross and commends that organization for having utilized qualified medical talent in its first-aid schools, he admits being somewhat troubled by the potential dangers of this and similar activities To quote from his communication

Just how far can the American Red Cross safely go in putting into the hands of these lay people more or less powerful drugs and hazardous technical procedures? The text book advises tannic acid for burns, certain eye lotions, various antiseptics and serum for snake bites Personally I think the text book is very conservative and safe. However already locally these classes are becoming the target for every sort of medicament imaginable They are being circularized in several cases by enterprising drug firms and having no background by which to judge they fall a prey to every nostrum on the market.

Medical societies and physicians individually should give their attention to this problem County medical societies should see that local organizations engaged in medical and public health educational work are made to realize that such work should be under the direct guidance and supervision of trained physicians Efforts should be made to impress on laymen that there is a definite boundary between first-aid and medical service Dangers of over-stepping that boundary should be emphasized As individuals, physicians would do well to warn their patients about dangers of self-medication and encourage them to avail themselves at the first opportunity of the service of a qualified physician no matter how trivial the injury or disability

DIABETES MELLITUS

Short Wave Diathermy and Office Surgery

MARTYN CORNELIUS RATZAN, M A, M D, *Brooklyn*

The management of the diabetic patient in spite of insulin still remains a problem which often defies our all too limited medical control. Particularly, is it so when surgical intervention, especially of the lower extremities,² with its all too attendant limited vascularity and poor resistance to infection, is present. Surgery in a diabetic patient in its present status is usually relegated to one of two realms of therapy, either that of the "laissez faire" school or that of "radicalism." Especially where there are definite roentgenological evidences of calcified blood vessels and definite infective, or even osteomyelitic with osteoporotic evidences of bone, as well as soft tissue disease, is a decision still more difficult.

The problem of limb versus life is all too frequently a matter of rare clinical judgment,¹¹ decision of which may only in retrospect be substantiated or deemed advisable in the future. Since so far as I know the medical and limited surgical treatment of infected processes involved in a diabetic, particularly a total diabetic, or a diabetic complicated with either coincidental blood vessel changes or concomitant pathology of the vascular tree is still a moot question, I should like to submit two cases treated somewhat differently with excellent results to the present writing of this paper.

CASE 1 S, a known diabetic for seventeen years associated with Buerger's disease bilaterally, semiambulatory for past few years. Blood sugar 114.6 mgs per 100 c.c. at time of visit, first seen 11-3-36.⁶ Burn and subsequent infection of left foot and leg after treatment which included venous occlusion, cysteine dressings, surgical removal toe by toe, and then mid thigh amputation April 1935—were all attempted with the end result just noted.

At the time of my first visit, the patient had a ulcer on the dorsum of his right foot about seven inches above the ankle on the tibial aspect which had existed for some months, there was no dorsalis pedis or posterior tibial pulsation present. The extremity was cold and there was delayed venous return. The ulcer was circular with jagged

inner surface and a⁹ necrotic infected base, appearing grayish black in hue. There was no sensation of this leg of a epicritic or even protopathic nature. Practically no free bleeding on curetting this ulcer bed could be obtained.

A debridement of the ulcer was done that evening, at home. Hot wet magnesium sulphate solution, hypertonic in nature (one tablespoon of the salt to a glass of hot water) was applied for twenty-four hours following. X-ray of the foot corroborated clinical impression of only soft tissue involvement and no bone pathology.

Short-wave diathermy³ given daily for fifteen treatments with a wave length in the neighborhood of twenty meters for fifteen minute intervals starting with application to the big vessels of the thigh, then reapplication just below the knee and finally a third, around the ulcer—a total of forty-five minutes was used. Dry dressings were applied for about one week followed by a split cod-liver oil ointment. Then a one per cent cysteine ointment to increase fibroblastic activity was applied during the duration of the diathermy treatment. Bathing with saline, dry dressings, and adhesive strapping bridged across wound to stimulate epithelialization followed. Healing of this indolent ulcer followed rapidly.

CASE 2 A W, fifty plus in age, complained of swelling and pain in second toe, middle joint of the right foot. Diabetes mellitus with insulin injection have been present for years. Blood pressure 178/110. Aortic and mitral systolic murmur of the heart were present. Liver, two fingers below costal margin, cyanotic lips, dyspnea, and venous engorgement of the neck in a semireclining position were present at the date of my first examination December 17, 1936. There was no dorsalis pedis or posterior tibial pulsation of either leg. Over the junction of the second and terminal phalanx of the second toe of the right foot there was a small sinus crepitus on movement and tenderness on lateral compression to this middle phalanx was present. Short-wave diathermy¹⁰ for two weeks daily treatment of three applications of the same nature as case 1 was done. Positive x-ray findings of osteomyelitis of the phalanx of this toe was present at this time.

Since warmth⁴ of the leg had returned

to a large extent as had sensation of an epicritic nature and there was an increase in bleeding on scraping the bed of the ulcer deliberately, incision and drainage of this infected area with a scraping of the nail bed and bone was done. Rubber dam was inserted and the wound packed with cod-liver oil ointment and kept open for five days¹. The drain was removed and cysteine (one percent) ointment was put in its place. Healing followed. Blood sugar at this time was 236 mgs percent. Insulin ninety-five units per day 50-10-35. The patient was re-x-rayed March 13, 1937 (about three months after first x-ray). The osteoporosis of the bone was gone and healing of the pathological fracture which had existed as result of this previous osteomyelitis was observed. The periostitis was gone. Superficially the previously existent sinus leading down into the bone had disappeared. The lateral tenderness on pressure over this bone was gone completely. The foot itself is much warmer and more sensitive⁶ to touch and pain sensation. Venous return is more efficient and complete.

Conclusions

1 Diabetes mellitus if controlled by insulin and diet, blood chemistry and urine examination periodically determined, is in itself no contraindication to surgical intervention extra "hospitally done"

2 Circulation of the extremities can be immeasurably increased by short-wave

diathermy suitably applied, the mode of which consists of starting with the larger trunks and proceeding downward hoping to increase collateral circulation and also dilate the atherosclerotic vessels. The meter length used is preferably of the longer wave length. Ultra short wave in the region of below ten meters was found to be in the hands of the author not quite as efficacious when compared with apparatus⁷ in the neighborhood of twenty meters.

3 Conservative office surgery if the patient is properly prepared may be done with justifiable hopes of success. This may afford even the impecunious patient adequate surgical treatment at an economical saving and the doctor a chance and facility for treating such patients which he might otherwise be denied due to necessity for hospitalization or more radical surgery.

184 NEW YORK AVE.

References

- 1 Blaisdell, E. R. *Maine Med Jour*, 27 158, 1936
- 2 Crossan, E. T. *Am J Surg*, 33 18, 1936
- 3 Schliepake, E. *Brit Jour Phys Med* 11 35, 1936
- 4 Patzold, J. *Ibid*, 11 27, 1936
- 5 Jellinek, S. *Ibid* 11 36, 1936.
- 6 Waddington, J. E. G. *Med Rec*, 144 33, 1936
- 7 Kovacs, R. *Arch Phys Therapy*, 17 432, 1936
- 8 Idem *Ibid*, 17 419, 1936
- 9 Halford, A. C. F. *Med Jour Australia*, 2 121, 1936
- 10 Bierman, W. and Schwarzschild, M. *New England Jour of Med* 213 509, 1935
- 11 Simpson, J. B. *Edinburgh Med Jour*, 43 426, 1936

HOW HYGIENIC MARRIAGE LAWS WORK

It is not at all surprising, says the *Detroit Free Press*, to find that, with the advent of the new hygienic marriage law in Illinois, numbers of young people are traveling across the state lines in search of "cheap and easy" weddings in states as yet officially indifferent to the ravages of syphilis.

The same sort of thing happened in Connecticut after medical examinations certifying that candidates for matrimony were free from venereal infection became mandatory under the law.

But in the end the regulation worked out well, because a Connecticut wedding grew to have a special value.

It was a guarantee of safety from a fear-

ful disease, both for the benedicts themselves, and for future children.

There is every reason to suppose that this will be so later on in Illinois, and in Michigan, especially after fugitive weddings begin to be suspect.

And they are bound to become so when the reason and necessity for hygienic laws are better understood among young people, many of whom now have little knowledge of the prevalence and devastating nature of the disorders from which the state is trying to protect them.

It is probable, too, that the time when all except the most backward states will have hygienic marriage laws is not far ahead.

Today's successful physician is the one who refuses to be blinded by too much the-

ory and ultra-scientific methods—*The Ohio State Medical Journal*

STREPTOCOCCUS HEMOLYTICUS INFECTION TREATED WITH SULFANILAMIDE

WILLETTTS W GARDNER M D, *Patchogue*

This is to report the use of sulfanilamide in a case of Streptococcus Hemolyticus Empyema of the pericardium, without incision and drainage, with a myocarditis, endocarditis, three separate attacks of lobar pneumonia, a pleurisy with effusion, and an abscessed tooth

Case Report

On December 26, 1936, I was called to see an eighty-two year old grandmother. She had a discharging, acute, purulent otitis media of four days' duration, with more or less pain. I had been called because she had, on the opposite side of the face from the infected ear, a small blistered area caused by picking a small pimple. It was a beginning erysipelas, a streptococcus infection from the ear, and in spite of heavy doses of streptococcus antitoxin, she died in five days.

On December 27, I also saw nine year old A.K. He had a slight rhinitis, pharyngitis, and tonsillitis, with a temperature of 101. His throat was painted and he was given throat gargles and salicylates and kept in bed. In four days the temperature was normal and he was better. After carrying a normal temperature for one day, he was allowed downstairs on the couch. On January 2, the beginning of sixty days of serious illness, I was called again.

My general impression was that he was very sick but except for a slight redness of the nose and throat, the examination did not reveal anything definite. The T-P-R was 100, 120, 28. The striking thing, however, was the rapid pulse in proportion to the temperature, as he was not of the nervous type. The following day the temperature was 102, pulse 130, respiration 35. I then called in Dr David MacDonell, a pediatrician. We could not detect any abnormality of the heart and lungs at that time. So, thinking that he might have a posterior nasal or sinus infection, we treated him accordingly but he became increasingly worse. On January 5, the fourth day, the respiration was 40, pulse 132, tempera-

ture 101.2, and the physical examination revealed the heart enlarging as is shown in Fig 1. There was also pain in the left shoulder.*

This day, a report came back from the New York State Laboratories that they had found Hemolytic Streptococci in the throat culture. A definite diagnosis, therefore, was a Hemolytic Streptococci heart infection. The following day I obtained for the first time, a definite pericardial friction rub over the whole precordia. On January 7 a definite right upper lobe pneumonia appeared. Oxygen was started by nasal catheter and continued for the next forty-one days. In consultation with Dr MacDonell, it was decided to use Prontylin and Prontosil. This was ordered directly by telephone from the Winthrop Chemical Company in New York City and the dose advised by them obtained. On January 8, the day the treatment was begun, the temperature was 105.5, pulse 160, respiration 50, the child was delirious and it seemed as though he could not last much longer. The doses of Prontylin and Prontosil are noted on the accompanying table.

On January 11, seventy-two hours after beginning treatment, the temperature came down to normal pulse 120, respiration 45. January 12, pulse very weak at 150—no friction rub heard but the cardiac dullness enormously increased. A pericardial effusion was apparent (Fig 2).

This x-ray also shows a shadow of the resolving upper lobe pneumonia on the right side. On January 16, with a continued feeble and rapid pulse and rapid respirations, Dr L. H. Bauer, a cardiologist, and Dr MacDonell, were called in and 500 cc of a dirty, brown, purulent fluid was withdrawn from the pericardium by Dr Bauer, going in outside the mammary line in the fifth interspace. The report from the New York State Laboratories stated that the fluid contained a pure strain of Hemolytic Streptococci. Under the micro-

*All x ray pictures were taken with a portable machine from the x ray department of the Suffolk County Sanatorium, and interpreted by Dr Edwin P. Korb, the head of the institution.

Read before a Staff meeting of the Southside Hospital, Bayshore, March 9, 1937



Fig 1



Fig 2



Fig 3

scope it was a dense mass of pus cells, which had to be diluted with water in order to separate them individually. His white blood cells count was 30,000, with Polys at eighty-seven per cent. Throughout this long illness, teaspoonful doses at a time, of liquids and soft foods was all that could be given, as the respirations were so rapid that nourishment had to be taken quickly.

Following the tapping of the pericardium, an upper left pneumonia developed, with a pleurisy with effusion (Fig 3). This picture did not quite get all the apex as he could not be moved from his side. On January 18, 250 cc of a clear fluid with only an occasional pus cell was withdrawn from the left lung by Dr E R. Hildreth. The removal of this small amount of fluid could be noted by the stethoscope and percussion, and also by a slight easing of the patient's respirations.

On January 22, the upper left pneumonia cleared and by January 24, the respirations were down to 28. On the 26th, an abscessed

TABLE I

(Sulfanilamide)				
Jan	8	— 10cc q 4h	— 60cc	Prontosil plus 1 gm. Prontylin
"	9	— 5cc q 5h	— 25cc	" " 1 gm. "
"	10	— 5cc q 8h	— 15cc	" " 1 gm. "
"	11	— 5cc q 12h	— 10cc	" " 1 gm. "
"	12	Prontylin	gr v q 8h	— 1 gm.
"	13	"	gr v q 4h	— 2 gm.
"	14	"	gr v q 6h	— gr
"	15	"	gr v q 6h	— gr
"	16	"	gr v q 8h	— 1 gm.
"	17-21	each	2 gms.	Stopped until Jan 26
"	26 to February 26	26 gr v q 6h	— 20 gr	per day
Feb	26-28	gr v q 4h.		
Stopped entirely				

tooth developed which drained through the large cavity in the first tooth. There was a slightly increased temperature with this.

The patient then went along fairly well for a while until February 1, when the pulse went up to 160, temperature began to go up, and the respiration was 42. Again flatness and bronchial breathing were noted in the left upper lobe, although heart sounds were louder, pulsations could be felt through the chest wall, and a systolic murmur was heard at the apex. Blood culture negative. On February 11, x-ray showed a pneumonia on the left side—a complete shadow, not enabling one to distinguish the heart. (Fig 4) The boy had not, for some time now, been able to turn from his left side. Because of the duration of the pneumonia, on February 13 I called in Dr Edwin P. Kolb, whose diagnosis was an unresolved pneumonia. By February 18 this began to clear, there was less consolidation and more rales. He was able to move to his back, oxygen was stopped, and cardiac

pulsations could be seen through the chest wall. By February 26, he could sit up in bed but was still running a slight temperature. There were still a few signs in the left upper lobe, but not, I thought, sufficient to keep up the temperature. There was some resonance at the apex for the first time, a faint bronchial breathing, many fine rales on inspiration, and a loud systolic murmur. Fig 5 shows a remaining consolidation with some thickened pleura. The heart was smaller than it was in the first picture, before filling up of the pericardium and was not far from normal size. There is an enlargement of the liver also. I decided to increase the Prontylin to the maximum dose of two gms for his estimated weight of forty lbs. The temperature promptly went up. On March 1, Prontylin

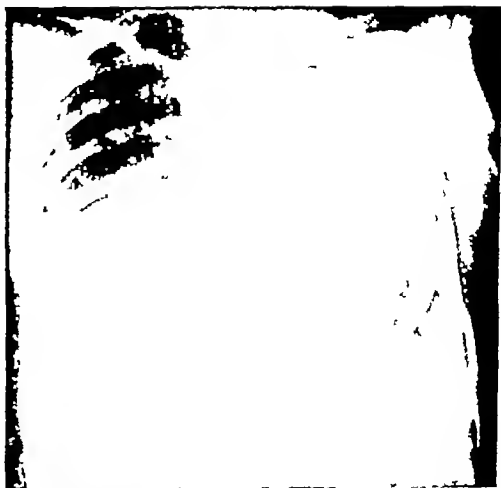


Fig 5



Fig 4

was stopped. The temperature came down to normal on March 3, respiration 28, pulse 120, the end of his temperature and long illness.

Fig 6 (March 8) shows very slightly more clearing of the left lung. His recuperation was remarkably rapid. By March 27, the pulse rate was normal and there was no systolic murmur. He was walking around and his mother found it difficult to keep him from being overactive.

The final x-ray (Fig 7) taken April 7, when he was up and about, shows lungs normal again, the heart slightly enlarged. Since the end of April, he has been playing around all day, playing baseball, riding bicycles (against orders), without any signs of shortness of breath, decompensation or heart pain. On June 4, except for some heart enlargement, he was as active and well as before his illness.



Fig 6



Fig 7



Fig 1



Fig 2



Fig 3

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13	.	gr v q 4h	— 2gm.		
14	.	gr v q 6h	— gr		
15	.	gr v q 6h	— gr		
16	.	gr v q 8h	— 1gm		
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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, D R P H, *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Parents Don't Know

A young man belonging to the theatrical world began to feel "indifferent to life," "nervous" and was afraid his heart was "going to fail" him. He had a number of other mild psychoneurotic complaints. The parents sent him to a physician whom they knew, but he wanted to be "smart" and judged that a doctor recommended by the old people must be an old-fashioned fogey and could not be good. He, therefore, in order to be modern, called up the official bureau for medical information in his city and to his amazement the same name was given to him as the proper medical man for his ailment. This detail gives the reader an idea of the patient. Indeed he despised everything his parents did except their constant payment of his bills. That was the cause of his inner conflict. He hated his parents, but needed them. He thought them slow and inefficient, but they had achieved great success while he had accomplished nothing.

A conflict, an undesired and unexpected conflict, is like the collision between the

boat and the landing pier. The shock is wisely softened by a cordage mat. In the same manner we must find the means to break the mental blow.

The doctor went over the details of this patient's life with him. It was found that his contempt for his elders dated from his college days and was a contagious imitation of other boys' habits. It was simply stylish to have one's parents in contempt, although they were feeding these young men. Besides, these particular parents had earned even more disdain because of their mean practice of telling the truth, yea, even the most unpleasant truths.

Our patient recognized his mistake and barring a deep-seated, universal, and natural hostility between parents and children, he had no real reason for hating his father and mother. Then adjustment took place and he accepted the temporarily subordinate position given to him in the theatre field. Of course, he also had to promise to give up the great excess of whisky drinking in which he was indulging.

Baker or Artist?

In my medical career I have seen and discovered and encouraged many artists, most of them in early childhood.

One boy of eight was interested in the large oils and color reproductions of my waiting room, but he looked with an extraordinary curiosity at the sketches of long ago made by myself and hanging in my desk room. While his mother and I were in the examination room he stole one of my drawings, and, although he hid it close to his chest, his mother noticed it. He cried "I took it 'cause 'cause I liked it." Of course, I was proud. There was at least one admirer. After his departure I also missed a little bronze bust and I suspected the same child. The main fact was the impression with which I remained that he was an art lover.

For the next ten years I saw him a few times as a patient having small physical ailments. But at the age of eighteen he was brought to me as suffering from mental depression. At the basis of his psychosis was a conflict between him and his parents. They wanted him to learn to manage the modest baking shop which they owned, while he de-

sired to study art. He was "sure" to become a great painter.

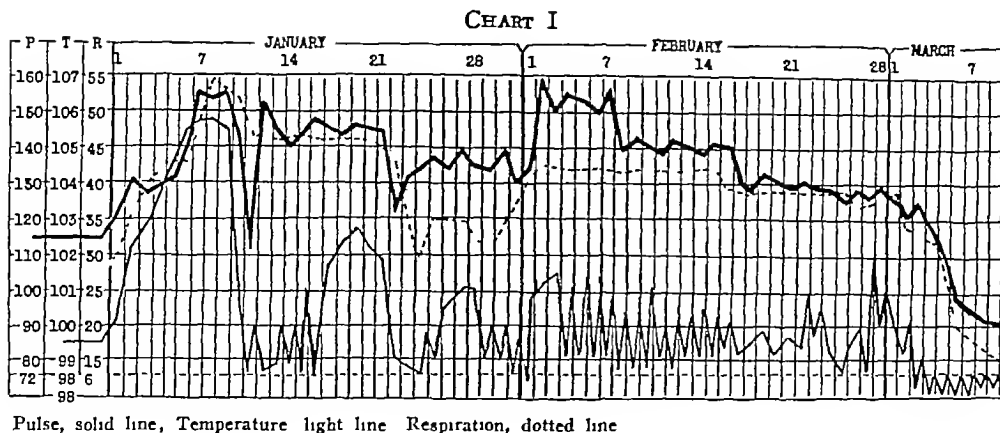
I was chosen as the arbiter because of another case which had become known and in which I had succeeded in having the child get the proper art education and in bringing out her splendid talent.

The young man's work was shown to me. I did not like it and I said so. Both parents triumphed. He will be better as a baker. But I could not see it their way. I told them that giving their son an opportunity to try his luck may be his only remedy, his only chance to recover from his mental disturbance. They followed my advice, he entered an art school and the result was as I predicted.

He was mentally healthy and successful and in later years made much money producing portraits that pleased the man in the street, but which I would never consider art. Indeed I was badly disillusioned.

If however I had to fight for anyone's freedom to adopt an artist's career, notwithstanding my personal unfavorable opinion of his talent, I would do it again.

611 W 158 St.



Comment

The reason for reporting this case is that I know of no similar one. Empyema of the pericardium alone, no matter what the organism, demands incision and drainage for a fifty per cent chance for life. Those who do recover are often crippled with an adhesive pericarditis which may necessitate another operation. The outcome for those not operated is usually fatal. With a *Streptococcus Hemolyticus* as the invading organism, involving the pericardium, myocardium, and probably endocardium, with the three distinct pneumonias—one long drawn out before resolving, and with a complete recovery—the case is unusually interesting.

In regard to the use of Prontylin and Prontosil, not until the third day of its use did I find the first work published¹ in this country on Para-Amino-Benzene-Sulphonamide (sulfanilamide). This was a guide as to dosage and what to expect in the way of complications. However, it was rather difficult to estimate the boy's weight as he had weighed 53½ pounds at school and had been ill the week previous, so I estimated the weight at fifty pounds at the beginning of his illness. It was not long before he was just skin and bones and I then judged it to be about forty pounds. From January 22 to 23 I had to wait for a new supply of Prontylin but then de-

cided not to use it again until January 26, when the abscessed tooth appeared with the fever and I began giving a little more. From then on, it was not stopped until March 1. An interesting point was on February 26, when I increased the Prontylin, then stopped it, with the temperature returning to normal. It would seem to show that the last few days of temperature were due to the sulfanilamide, or else the increased doses destroyed the remaining infection.

As for other medications, he was given some salicylates and iron when I discovered that the hemoglobin had dropped quite low, and small doses of digitalis. The latter, I know, was a debatable thing to do but on an occasion when I stopped it, the condition was bad, the pulse rapid, weak, and imperceptible. He was given bicarbonate of soda at times but never any cathartics.

Conclusion

I feel that this is just one more case proving the effectiveness of sulfanilamide in the treatment of *Streptococcus Hemolyticus* infections—to say nothing of the good reports being published on its use in other kinds of infections.

224 E MAIN ST

Reference

¹ Long, Perrin and Bliss, Eleanor. *J.A.M.A.* 108 32, 1937

TRUST NO SLUR IS MEANT

"Well-educated Young Lady requires position as Secretary-Receptionist to doctor,

dentist, or gentleman" —*Advt in the London Times*

ficers for the district, analyze the causes of this disappointing result. Higher rents in the new dwellings and additional transportation costs reduced the tenants' already minimal allowances for food. The resultant nutritional impairment weakened their defenses against disease and death.

As Hugh H. Darby, writing for *The Nation*, states, "The solid fact brought about by this study is that people living in slum housing earn so little and live so close to the margin of starvation that it is impossible to raise their rents or other living expenses in any way without seriously affecting their nutrition." This has long been one of medicine's principal arguments against compulsory sickness insurance. The class which this system is supposed to benefit cannot afford the price, i.e., diminished weekly income and higher living costs. What good is it for the government to extend second-rate medical service with one hand, when with the other it carves a big slice out of meager budgets to pay the bill?

"The Arbitration Way"

The principle of arbitration has again proven its value in workmen's compensation. Conference and discussion have adjudicated numerous disputes which would formerly have gone on to costly, protracted litigation. Of 2500 contested bills, many have been amicably settled by talking things over in an atmosphere of good will. More controversial cases have been placed on the formal arbitration calendar, where they will be disposed of promptly.

Contested bills are not the only disputes to be settled by arbitration under the amended Workmen's Compensation Act. Charges of "case lifting" are heard and, if substantiated, bring redress to the plaintiff. On any important point of difference arbitration gives both carrier and physician an opportunity to appeal at small expense to an impartial, well-informed body.

It is not to be expected that under the new law the carriers have suddenly become imbued with a desire to pay more than a minimum for medical service or loosen their grip on this aspect of compensation. Organized medicine must continue to fight without let-up for fair fee schedules, free choice of physicians and the supremacy of medical judgment in medical questions.

Insofar as agreements exist on certain points, however, arbitration affords a fair, intelligent means of adjudicating disputes. Not only does it produce quick settlements at low cost, but, in the process of ironing out disagreements, it clarifies issues and sometimes points the way to the prevention of similar controversies.

Needless to say, the results of arbitration could not have proven so satisfactory without a spirit of cooperation and fair play on the part of all concerned. The participating physicians, carriers, and state officials have shown that it is entirely feasible to rely on good sense and good will for the settlement of industrial disputes.

The Anti-Pneumonia Campaign

The Medical Society of the State of New York has instituted throughout the state a number of what they have been pleased to term "pneumonia institutes." Unfortunately, because of the lack of available facilities those desiring to avail themselves of the facilities of these institutes will have to apply early—because of the usual rule of "first come, first served," and when the facilities of a given institute are exhausted, those applying later will have to be taken care of in some other way at some other time.

The ravages of pneumonia are the enemy which these institutes are preparing to combat. A word to our membership should be sufficient to enlist their active participation as far as our facilities permit. There are, in these institutes, the combined efforts of the Medical Society of the State of New York, the

New York State JOURNAL of MEDICINE

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EDITORIALS

The District Branch Meetings

The resumption of activities after the vacation days of the summer are usually signalized in our Society by the District Branch Meetings. They serve a three-fold purpose. They bring the high officials of the State and the component county societies in contact for the exchange of views, they permit a discussion in detail of the program outlined at the last annual meeting, and clarify moot questions on pending issues, and lastly they afford the means, through their scientific programs, of carrying on our ever-present endeavor to improve the quality of medical practice which we deliver to the people of this state.

Some of the District Branches have already held their meetings—but there are more to come—and we issue this note with the idea of calling attention to the exceptional scientific programs which the District Branches are presenting, and the opportunity their meetings afford.

It was thought at one time that these branch meetings might be abolished in the interest of economy, but when weighing the costs in dollars and cents against the incalculable gains to the profession and to the solidarity of the State Society, it was wisely determined to continue them. The character of the work pre-

sented this year is evidence of the wisdom of the decision made by the House of Delegates. We suggest that you visit your District Branch Meeting, meet your officers, talk your problems over with the state officials—and last but not least—make those social contacts which are invaluable in the practice of medicine anywhere.

A Timely Warning

English experience with slum clearance holds a valuable lesson for American sociologists who desire to combat the adverse influence of poverty on health. It lends strong support to those who insist that proper nutrition is a primary factor in the maintenance of health. Health schemes which diminish the amount of money available for food in low income families defeat their own purpose.

In Sockton-on-Tees an abnormally high death rate prompted the demolition of a large slum area. Its inhabitants were transported to a model housing development in the confident hope that mortality would thereupon diminish. To the disappointment of all, the death rate not only failed to drop but actually increased.

In *Poverty and Public Health*, G C M M'Gongle and J Kirby, health of-

CURRENT COMMENT

October 1, 1937]

"The town meeting offered \$1,200 annually plus free rent in a large house, and the doctor can keep whatever he makes on the side.

"The last physician, Dr Leon Hagopian, left to enter the medical corps of the army at Fort Williams, Portland, Me. Many of the roads in this town (Petersham, Mass.) of 800 persons are impassable at times in Winter and physicians have been unable to come from Athol and Gardner.

"Speakers at the town meeting agreed there were not enough patients to provide independent support for a general practitioner. For his \$1,200 the new doctor will act as school physician, which duties are not arduous."

"I HOLD EVERY MAN A DEBTOR to his profession, from which, as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves by way of amends, to be a help and ornament thereunto"—The Polk County *Medical Bulletin* reminds us that "thus spoke Francis Bacon."

"DECLARING THAT 'IT WAS THE SPIRIT of help and human sense of duty to your people and your God that inspired the great men of our country,' United States Senator Harry A. Moore says he hopes that 'the Government will never get to the point where it would curb such ambition and spirit.'"—According to *The New York Sun*, of September 16, from which we have quoted the above, Senator Moore made these remarks before 500 persons at the thirtieth annual banquet of the American Hospital Association which has been meeting in Atlantic City.

"THE CURRENT VENEREAL DISEASE campaign represents both an opportunity and a challenge. Those of us who are in sympathy with the objectives of the move and who wish to handle venereal cases must im-

prove our ability to diagnose and to render treatment. If the campaign is not to peter out entirely, it is imperative that the public be given the best care of which modern medicine is capable.

"This means taking a special interest in venereal work and devoting the necessary extra time to it. How to do this requires little explanation since lectures on the subject are being given throughout the country, medical centers are holding postgraduate courses, and there are numerous charity clinics in which to obtain clinical experience"—From *Medical Economics* of September

"THE RADIOLOGISTS OF THE WORLD met in Chicago last week and in a hundred recondite scientific addresses drove home the enormous progress made in alleviating disease by means of invisible radiations.

"To philosophically minded physicists who are trying to burst atoms asunder and fathom the mystery of the cosmic rays the addresses delivered in Chicago are of more than medical significance. Light and life—there has always been a mystic relation between the two. Even the physical relation has long been obvious.

"The healers in radiology are blazing trails that will make it necessary still further to revise our notions of matter and life. There was no place for mind in the universe as it was conceived by science in the last century. Life was a nuisance to a physicist. It did not bend readily to his laws of nature. But since the x-rays and radium were discovered, since in explaining them it has become necessary to treat the universe as if it were in part created by the mind, the physicist has lost his old cocksureness. Physics and medicine reigned like a king and his queen at Chicago. Out of their union there is bound to come a deeper understanding of man's place in the universe though the immediate object was the realistic treatment of human suffering."

—From *The New York Times* of September 19

The next examinations (written and review of case histories) for Group B candidates will be held in various cities of the United States and Canada on November 6, 1937, and February 6, 1938. Application for admission to these examinations must be filed on an official application form in the office of the Secretary at least sixty days prior to these dates.

The general oral, clinical, and pathological examinations for all candidates

(Groups A and B) will be conducted by the entire Board, meeting in San Francisco, Calif., on June 13 and 14, 1938, immediately prior to the meeting of the American Medical Association.

Application for admission to Group A examinations must be on file in the Secretary's Office before April 1, 1938.

For further information and application blanks address Dr. Paul Titus, Secretary, 1015 Highland Bldg., Pittsburgh, (6), Pa.

State Department of Health, and the practicing doctor—a combination ideal in any health program

Toxicity of Barbituric Acid Compounds

The widespread use of the various derivatives of barbituric acid either as sedatives or anesthetics has lulled the profession and the public into the belief that they are using harmless and nontoxic drugs. That the reverse is true has been demonstrated by recent pharmacological studies of the various barbitals.

Amytol, which is recommended for intravenous analgesia, is capable of producing a ganglionic paralysis of the cardiac vagi. The action may spread to inhibit such protective reflexes as vomiting and coughing.¹ Cyanosis, skin eruptions, reduced peristalsis and depressant action upon the gastrointestinal tract have also been recorded.² Evipal, one of the barbiturates now extensively used for short anesthetics, may cause a destruction of the erythrocytes with a resultant anemia.

Such toxic manifestations render the use of these drugs dangerous except in the hands of the most competent. The number of people who use the barbitals for sedative purposes is increasing. They are the ones who should be warned of the side actions of these drugs, and if necessary be prohibited from obtaining them except upon the written direction of a physician. The indiscriminate use of the barbitals for surgical anesthesia is also to be condemned. A clinical study of each patient is indicated and the selection of the one to whom a barbitol is administered should be made with extreme caution.

Aero-Otitis Media

The increased growth of commercial air transportation has brought in its train

a new occupational disease called by Armstrong and Heim¹ "aero-otitis media." It is a traumatic inflammation of the tympanic cavity caused by the difference in pressure within the middle ear and that of the surrounding atmosphere. Failure to voluntarily open the Eustachian tube or inability to do so during flight brings on this condition.

In the acute forms, a sensation of fullness in the ears accompanied by a degree of deafness and tinnitus is noted. During the descent of the plane, severe pain is experienced, and vertigo and nausea are often present. Rupture of the ear drum occurs when the mercury pressure is between 100 and 500 mm. In the chronic cases, there is a partial loss of hearing and a sensation of stuffiness in the ears. The membrana tympani becomes dull and retracted.

The occurrence of aero-otitis media can in most instances be avoided by the proper knowledge of how to periodically open the Eustachian tube by yawning, swallowing or autoinflation. For the lesion itself, copious douching of the ears with water at 110 F followed by dry heat relieves the acute pain. Gentle inflation of the Eustachian tube and frequent shrinking of the mucosa about the ostium should also be used.

This condition will be met with more frequently by the profession as air travel increases, since passengers are exposed to the same influences as are the pilots during flight. Physicians therefore should familiarize themselves with the prophylactic measures so as to instruct those of their clientele who contemplate traveling by air.

CURRENT COMMENT

"TOWN TO PAY FOR DOCTOR, VILLAGE without a physician will give salary to willing man" is the statement which heads an interesting news item to be found in *The New York Times* of August 9. We quote "This town without a physician since January, voted at special meeting to pay a doctor to come here and live."

¹ Hanzlik, P. J. *California and West Med* 46:302, 1937.
² Dallemagne, M. J. *Arch Internat. Med* *Exper*, 10:379, 1935.

¹ Armstrong, H. G. and Heim, J. W., *J.A.M.A.*, 109:417, 1937.

DISTRICT BRANCH MEETINGS

First District Branch, October 5

Place of meeting The New York Post-Graduate Medical School and Hospital is located at 20th Street and Second Avenue, New York City, with the main entrance at 303 E. 20th Street. All sessions will be held there, except those given by the Department of Dermatology and Syphilology, which will be held at the N Y Skin and Cancer Unit of the Post-Graduate, with entrance on Second Avenue near 19th Street.

Parking Arrangements have been made with the Police Department to restrict parking from 9 to 5 on this day on the blocks between Second and First Avenues on 19th, 20th, and 21st Streets to the cars of physicians attending these sessions. Policemen will be detailed to supervise the parking.

Luncheon A buffet luncheon will be served at 1 P M, in the recreation room on the first floor of the Nurses' Home, with entrance on 20th Street across from the Hospital.

General session From 2 to 3 P M, a general session will be held in the Erdmann Auditorium. An address of welcome will be given by Dr Willard C Rappleye, Director of the New York Post-Graduate Medical School and Dean of the College of Physicians and Surgeons, Columbia University. Addresses will also be given by Dr W C Buntin, President of the First District Branch of the State Medical Society, and by Dr Charles Goodrich, President of the Medical Society of the State of New York.

Visitors in clinics Those who wish to attend the sessions which take place in outpatient clinics are advised to come a little in advance of the hour named as space limitations require that only a few visiting physicians be admitted to each clinic.

Dermatology and Syphilology

(Entire program at the N Y Skin and Cancer Unit at the corner of Second Avenue and 19th St.)

9:00-10:00—"Diagnosis and Treatment of the Most Common Skin Diseases," illustrated with lantern slides. Dr Joseph L. Morse.

10:00-11:00—"Physical Therapy in Dermatology, Exclusive of X-rays and Radium." Dr Henry D Niles.

11:00-12:00—Demonstration and Discussion of Patients with Diseases of the Skin. Dr J Frank Fraser.

12:00-1:00—"The Cutaneous Manifestations of Early Syphilis," illustrated with lantern slides. Dr E W Abramowitz.

2:00-3:00—"The Cutaneous Manifestations of Late Syphilis," illustrated with lantern slides. Dr Fred Wise.

3:00-4:00—Demonstration and Discussion of Patients with Diseases of the Skin. Dr George Miller MacKee.

4:00-5:00—"The Treatment of Syphilis." Dr Max Scheer.

In addition to the lecture schedule given above, there will be rounds of the clinics for groups of physicians, eight of each group, beginning every hour on the hour. All the skin and syphilis clinics in the N Y Skin and Cancer Unit will be visited.

Gynecology

9:00-10:00—Lecture. Subject to be announced. Dr Gerard L Moench (Room 100).

10:00-11:00—"The Importance of a Urological Investigation in Gynecological Patients." Dr Isador W Kahn (Lantern slide illustrations) (Amph B).

11:00-12:00—"The Glandular Aspects of Gynecology." Dr Thomas H Cherry (Amph B).

12:00-1:00—"The Etiology, Diagnosis, and Treatment of Arrhythmic Functional Uterine Bleeding." Dr Theodore Neustaedt (Amph B).

2:00-6:00—Operative Clinic. Dr Walter T Dannreuther (Room 4).

Medicine

9:00-12:00—Case Demonstrations in Gastrointestinal Clinic. Dr Z Sagal.

9:00-12:00—Case Demonstrations in Arthritis Clinic. Dr E F Hartung.

2:00-4:00—Case Demonstrations in Diagnostic Clinic. Drs M A Bridges and David S Likely.

2:00-4:00—Case Demonstrations in Metabolic Clinic. Dr James J Short.

2:00-4:00—Case Demonstrations in Vascular Clinic. Dr Irving S Wright.

2:00-4:00—Case Demonstrations in Chest Clinic. Dr Julia V Lichtenstein.

3:00-3:30—"The Evaluation of the Cardiac Patient as a Surgical Risk." Dr Charles A Poundexter (Erdmann Auditorium).

4:00-5:00—Medical Staff Cases. Demonstration of Medical Ward Conferences. Dr Walter G Lough and staff (Erdmann Auditorium).

The Department of Medicine will also have on display in Room 100 an Exhibit prepared by the Division of Gastroenterology. Demonstration on Colitis including colored drawings through the sigmoidoscope X-rays and amebae and other parasites.

Neurology and Psychiatry

10:00-11:00—"The Management of the Psychoneuroses in General Practice." Dr Philip R. Lehrman (Erdmann Auditorium).

11:00-12:00—"Head Injuries." Dr George A Blakeslee (Nerve Clinic).

12:00-1:00—"Encephalograms," illustrated.

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Endocrine Substances in Acne

Herman M Biggs Memorial Hospital
Ithaca

To the Editor

In the latest (September 1) issue of the JOURNAL you comment editorially on the use of estrogenic therapy in acne, with, I believe, the inference that the substance is a valuable aid in the treatment of acne. You refer to the work of Lawrence and Rosenthal, whose articles are suggestive and optimistic concerning the use of endocrine substances.

In the August 21 issue of the JAMA there appears an article by Williams and Nomland in which they review previous work and describe their own experiment. They mention the work of Lawrence and Rosenthal and the less optimistic reports of McCarthy and Hunter. They raise the point that previous findings are contradictory and opinion confused and variable concerning the use of gonadotropic substance in acne. They complain that too few controlled experiments have been made previously, and set about a controlled experiment of their own. Thirty-nine patients were used, half of whom received the endocrine produced by injection, the other half received injections of sterile water. The local treatment in all cases was identical. They conclude, "Our observations on thirty-nine students with acne, lead us to believe that a deficiency of the pituitary like hormone is not an important etiologic factor

in acne. The results show a slightly greater degree (7 per cent) of improvement in the acne of the group treated with gonadotropic substance from pregnancy urine compared with the control group. The difference is hardly sufficient, however, to justify the expense and effort of intramuscular administration of the gonadotropic preparation. It would seem that the local therapy is the most important factor in the management of acne."

ROY E REED, M D

September 6, 1937

A Doctor's Wife Speaks

To the Editor

The New York Physicians' Mutual Aid Association fills a special need in the life of the wives of physicians.

When, at an unexpected moment, the husband is cut off suddenly—his assets tied up, his unpaid bills outstanding, his estate requiring straightening out, his wife without ready cash—the Physicians' Mutual Aid Association steps into the gap by losing no time in paying to the widow her insurance benefit. This is a great boon to her.

Membership in the Physicians' Mutual Aid Association is more than an insurance protection. It serves a worthy cause and should be supported by all foresighted physicians for the sake of their wives and children.

MRS (Name Omitted upon request)

September 7, 1937

1938 Annual Meeting

Scientific Exhibits, New York City, May 9-12

Application blanks for Scientific Exhibits may be secured by medical colleges and hospitals in New York State by writing to the Chairman of the Committee on Scientific Exhibits, Dr William A. Krieger, 103 Hooker Ave., Poughkeepsie.

The plan this year is to have all these

exhibits furnished by hospitals and medical schools instead of by individuals.

Motion pictures will not be shown in the same room as the scientific exhibits at the Waldorf-Astoria Hotel, but in a special room of large size allocated for that purpose.

The first West Coast meeting of the American Academy of Orthopaedic Surgeons will be held on January 16-20, 1938, at the Hotel Biltmore, Los Angeles. Spe-

cial trains will be run with stop-overs at Santa Fe, the Grand Canyon, San Francisco, and other points. For information write to Robert L. Lewin, Hotel Biltmore.

- 3 30-4 00—"Reconstructive Tendon Surgery of the Hand" Dr David Goldblatt. (Amph B)
 4 00-4 30—"The Injured Joint" Dr Willis W Lasher (Amph. B)
 4 30-5 00—"Hernia." Dr Slattery (Amph B)

Urology

- 9 00-11 00—Operative Clinic. Dr Joseph A Hyams. (Room 6)
 11 00-1 00—*Clinical Presentations* (Room 5)
 1 Urethrocytographic and Cystometric Interpretations of Lower Urinary Tract Disorders Dr Herbert R. Kenyon.
 2 Urological Disorders in Children Dr C Travers Stepita
 3 Urographic Interpretations of Surgical Disorders of the Upper Urinary Tract Dr Stanley R. Woodruff
 4 Surgical Disorders of the Kidney Dr Clarence G Bandler
 5 Surgical Disorders of the Ureter Dr Joseph A. Hyams
 2 00-5 00—Cystoscopic Demonstrations, and Round Table Discussion of Urological Problems Dr Joseph A. Hyams and Staff (Rooms 5 and 6)

(Note New instruments and equipment, lantern slides, graphs and charts of the various operative procedures discussed will be continuously exhibited and demonstrated.)

Pathology and Bacteriology

- 8 00-8 30—Surgical Pathology Demonstration of the microscopic specimens from surgical operations of Friday, October 1 Dr Ward J MacNeal. Laboratory Lecture Room, 6th Floor
 8 30-9 00—Surgical Pathology Demonstration of the gross specimens from surgical operations of Monday, October 4 Dr S Milton Rabson. Pathological Laboratory, 7th Floor
 9 00-9 15—Serological tests for syphilis Dr Adele E Sheplar and Mrs Marguerite B Golar. Serological Laboratory, 6th Floor
 9 15-9 30—Agglutination tests for typhoid and for undulant fever Dr Adele E Sheplar and Miss Gladys Morton. Serological Laboratory, 6th Floor
 9 30-9 45—Streptococcus agglutination. Dr Adele E Sheplar and Mrs Margaret S Neil. Bacteriological Laboratory, 6th Floor
 9 45-10 00—Pneumococcus typing by Neufeld method. Dr Adele E Sheplar and Miss Gladys Morton. Bacteriological Laboratory, 6th Floor

10 00-11 00—Lecture demonstration on Experimental Therapy of local bacterial infections and of septicemias with aid of bacteriophages, immune serums, chemotherapeutic agents and transfusions Dr Ward J MacNeal, Dr Adele E. Sheplar, Miss Frances C Frisbee and Miss Martha Jane Spence. Laboratory Lecture Room, 6th Floor

11 00-11 15—Blood culture technic and demonstration of blood cultures Dr Adele E Sheplar and Miss Gladys Morton. Bacteriological Laboratory, 6th Floor

11 15-11 30—Blood sedimentation test Dr Adele E Sheplar and Mrs Margaret S Neil. Bacteriological Laboratory, 6th Floor

11 30-11 45—Experimental therapy of streptococcus infection in mice by sulphanilamide and γ serum Dr Adele E Sheplar and Miss Martha Jane Spence. Bacteriological Laboratory, 6th Floor

11 45-12 00—Apparatus and Technic of Fractional Transfusion Dr Ward J MacNeal, Mrs Margaret S Neil and Miss Anne Blevins. Bacteriophage Laboratory, 7th Floor

12 00-12 45—Technic of preparation of bacteriophages for therapeutic use. Miss Frances C Frisbee and Miss Marie Wasseen. Bacteriophage Laboratory, 7th Floor

2 00-2 30—Demonstration of pathological lesions of the eye in children Dr Louise H Meeker. Pathological Laboratory, 7th Floor

2 30-2 45—Demonstration of Mediastinal Tumors and of Congenital Defects of the Heart Dr Louise H Meeker. Pathological Laboratory, 7th Floor

2 45-3 00—Pathology of the tonsils, Metaplastic tumor of the colon, Carcinoid tumors Dr Louise H Meeker and Dr S Milton Rabson. Pathological Laboratory, 7th Floor

3 00-3 15—Unilateral fused kidney with purpura hemorrhagica, Carcinoma of ureter, Exstrophy of bladder, Leukoplakia of bladder Dr Louise H Meeker and Dr S Milton Rabson. Pathological Laboratory, 7th Floor

3 15-3 30—Erythroblastemia of infants Leukemia general and localized Multiple hemendotheloma. Dr Burr R Whiteher and Dr S Milton Rabson. Pathological Laboratory, 7th Floor

3 30-4 00—Pigmented tumors of the skin Dr D S D Jessup. Pathological Laboratory, 7th Floor

The Laboratories of this department will be open to members of the Medical Society throughout the entire day and the exhibits may be viewed at any time

Eighth District Branch

The program of the Eighth District Branch Annual Meeting, to be held at the Bartlett Country Club, Olean, October 7, is as follows

10 00 A.M. "The Use of Sulfanilamide in the Treatment of Infections" Francis P Schwentker, M.D., Director of Medical Research, City Health Department, Baltimore, Md. Sulfanilamide is indicated in the treatment of serious

infections with the beta hemolytic streptococcus. There is some evidence that it may also be helpful in the treatment of meningococcus and gonococcus infections as well as in pyelitis due to B coli or staphylococcus. The methods of treatment and the toxic manifestations of the drug will be discussed.

11 00 A.M. "Practical and Interesting Phases of Thoracic Surgery" Cameron Haight, M.D., University of Michigan, Ann Arbor, Michigan

with lantern slides Dr Rubin A. Gerber (Room 100)

2 00-3 00—"Diagnosis of Spastic and Flaccid Paraplegias" Dr James L. Joughin (Nerve Clinic)

3 00-5 00—"Technic of Lumbar Puncture, Cisternal Puncture, and Discussion of Treatment of Diagnosis and Neurosyphilis" Dr George S. Cattanaach (Nerve Clinic)

Ophthalmology

8 30-10 00—Refraction Clinic. Dr Isadore Givner

10 00-11 00—"Muscle Anomalies" Dr James W. White. (Eye Lecture Room)

11 00-12 00—"Pathological Conditions of the Eye," illustrated with microscopic slides Dr Louise H. Meeker (Eye Lecture Room)

12 00-1 00—"Headaches from an Ocular Viewpoint" Dr Rudolf Aebli (Eye Lecture Room)

2 30-3 30—"Fundus Lesions Pertaining to General Medical Diseases" Dr Martin Cohen (Eye Lecture Room)

3 30-5 00—Demonstration of Clinical Cases Dr Cohen and staff (Eye Clinic)

Orthopedic Surgery

(Program in Amphitheatre C until 5 P. M.)

9 00-10 00—"Chronic Arthritis" Dr Edward F. Hartung (Dept. of Medicine)

10 00-11 00—"Management and Prevention of Deformities in Arthritis" Dr John P. Stump

11 00-12 00—"Laboratory Aids in Diagnosis of Orthopedic Conditions" Dr Ward J. MacNeal (Dept. of Pathology and Bacteriology)

12 00-1 00—Lecture and Demonstration, "Plaster Technic." Dr John P. Stump

2 00-3 00—"Surgical Anatomy and Important Orthopedic Problems" Dr H. L. Wenger

3 00-4 00—"Consideration of Foot Problems for the Practitioner, Including Foot Strain, Weak Feet, Flat Feet, and Anterior Metatarsalgia" Dr Charles Ogilvy

4 00-5 00—Demonstration of Cases from Foot Clinic Dr Charles Ogilvy

5 00-6 00—Lecture and Demonstration, "Fascial Transplantation" Dr C. M. Gratz (Mortuary)

Otolaryngology

9 00-10 00—"Pathological Conditions of the Ear, Nose and Throat," illustrated with Microscopic slides Dr Louise H. Meeker (Dept. of Pathology and Bacteriology) (Sixth Floor Lecture Room)

10 00-11 00—Laryngeal Operations and Endoscopic Demonstrations Dr C. J. Imperatori (Morgue)

10 00-12 00—Nasal Plastic Operations Dr Gustave Aufricht. (Room 2)

11 00-1 00—Caldwell-Luc and Denker Antral Operations Frontal Sinus Operations Dr Charles M. Griffith. (Morgue)

2 00-3 00—"Indications for Simple Mastoidectomy and Some of the Complications" Dr James O. MacDonald. (Room 100)

3 00-4 00—"Endoscopy of the Esophagus and Upper Air Passages in Children" Dr C. J. Imperatori (Room 100)

Pediatrics

9 00-10 00—Ward Rounds in the Babies' Wards, for two groups of fifteen each Dr Marshall C. Pease and Dr Charles J. Leslie.

10 00-11 00—"Asthma and Allergy in Children" Dr Robert Chobot. (Children's Clinic)

11 00-12 00—Demonstration of Cases of Heart Diseases in Children Dr Martin M. Maliner (Children's Clinic)

12 00-1 00—Demonstration of Pediatric Cases Dr Adolph G. DeSanctis (Erdmann Auditorium)

2 00-3 00—"Preventive Pediatrics in Everyday Practice" Dr John Dorsey Craig (Children's Clinic)

3 00-4 30—Demonstrations of Common Infant Feeding Problems Dr Oliver L. Stringfield (Children's Clinic)

General Surgery

I OPERATIVE SCHEDULE

8 30-10 00—Dr Chas. Gordon Heyd. (Operating Amphitheatre)

8 30-10 00—Dr Edward C. Brenner (Room 4)

8 30-10 00—Dr Edward W. Peterson (Room 3)

10 30-12 30—Dr Thomas H. Russell (Room 4)

10 30-12 30—Dr Carl Eggers (Room 3)

2 30-4 00—Dr John F. Erdmann (Operating Amphitheatre)

2 00-3 00—Dr R. Franklin Carter (Room 3)

4 00-5 30—Dr J. William Hinton (Operating Amphitheatre)

II LECTURE SCHEDULE

9 00-10 00—"Administration of Anesthesia to Children." Dr T. Drysdale Buchanan (Amph. B)

9 00-10 00—Demonstration of Ulcer Cases Dr Jerome Selinger (Eye Lecture Room)

10 00-11 00—"The Surgical Indications of Thyroid Disease." Dr B. A. Goodman. (Room 100)

11 00-12 00—"Curiosities in Surgery" Dr John F. Erdmann (Erdmann Auditorium)

3 30-4 00—Motion Picture, "Diagnosis and Treatment of Gall-Bladder Disease." Dr R. Franklin Carter (Erdmann Auditorium)

5 00-5 45—Motion Picture, "Blood Transfusion—Unger Method" Dr Lester J. Unger (Erdmann Auditorium)

Traumatic Surgery

9 00-9 30—"The Infected Hand" Dr H. H. Ritter (Erdmann Auditorium)

9 30-10 00—"The Traumatic Shoulder" Dr H. V. Spaulding (Erdmann Auditorium)

10 00-10 30—Ward Round (for a group of twelve) Drs Ritter and Louis R. Slattery

10 30-12 30—Operations Dr John J. Moorhead (Operating Amphitheatre)

12 30-1 00—"Treatment of Acromioclavicular Separation" Dr Walter D. Ludlum. (Amph. B)

2 30-3 30—"The Fractured Hip" Drs Herbert M. Bergamini and Emmett A. Dooley (Amph. B)

Public Health News

Management of the Child with Rheumatic Heart Disease

There is no known successful remedy in rheumatic heart disease. Drugs are of value only in certain passing phases, treatment by vaccines or sera has proved disappointing, and dietary regulation is of less than major importance. Certain measures can be taken to place a child with this condition in as favorable an environment as possible for recovery, but if good fortune does not prevail, the physician must stand by and see his patient steadily decline. On the other hand, all advice as to care may be consistently ignored, and the child, seen perhaps after a lapse of a year or two, found to be in excellent condition.

Care of the child will involve not only therapeutic measures designed to alleviate his condition as one finds it, but also efforts to prevent further damaging incidents.

If the child is very ill when first seen, attention will probably center on the heart as a more or less isolated organ. Treatment directed to the heart itself will depend on the stage of the disease. In acute carditis, the physician must realize that he is dealing with inflamed tissue, and that drugs at present available cannot be expected to influence the inflammatory process. The cardiac muscle cannot be put at rest, but as close an approach as possible to this should be secured. The child should be comfortably settled in bed, hypnotics used if necessary to induce regular and restful sleep, and, in the presence of pain, morphine or other opium derivatives given freely. Too much emphasis cannot be placed on the necessity for rest and quiet as essential to a favorable outcome. Pressure from the child or his parents to shorten the rest period will tax the physician's patience, but he must meet this pressure understandingly, trying to avoid unnecessary fright to the family while remaining firm in his insistence on an adequate period of complete inactivity. A high caloric diet should be given, and regular elimination secured by means of some such mild laxative as mineral oil or agar. Salicylates are of value only if high fever and inflamed joints are present, and apparently do not affect the rheumatic process within the heart. Cardiac stimulants, such as brandy, strychnine, adrenalin or caffeine are to be avoided. Digitalis will be found ineffective

at this time. Heat, or sometimes ice, applied to the precordium, may be welcome.

One cannot say how long this acute phase may last, or whether the subsequent course will be toward recovery or toward a graver stage. Congestive failure may develop at this time or later in the course of the disease. Failure may be closely associated with the inflammatory process, or may seemingly be a result of myocardial exhaustion. Specific treatment can be applied to this condition, but we must bear in mind that the basic power of the heart itself to sustain its action is our most potent weapon. Orthopnea should be minimized by propping the child up in bed. It is desirable to limit fluid intake and if possible keep it below the urinary output. Digitalis should be tried and its effect observed. It should be discontinued at once if headache, nausea, vomiting or premature ventricular beats appear. Diuretics such as theocin, theobromine sodium salicylate, or salyrgan may be used. Saline cathartics are not advisable, since they are too disturbing to the patient. Intravenous injection of glucose, in solution of about twenty-five per cent, may be given two or three times daily and may prove of great benefit. In the presence of venous engorgement venesection may be done. This is not used as widely in practice among children as with adults. If a large pericardial effusion develops, paracentesis will be considered, although its value is doubtful. Large accumulations of fluid in the pleural or peritoneal cavities may also be removed by paracentesis.

The stage of chronic heart disease may be reached after either or both of the above stages, or it may develop insidiously, and be the type found when the child is first seen by the physician. These cases comprise a large part of practice among rheumatic fever patients, and are the ultimate test of the physician's skill in a very difficult field. They range, in degree of severity, from those who develop dyspnea on the slightest exertion and who must remain at rest in bed indefinitely, to those in whom the diagnosis of rheumatic heart disease is not even certain, and who are unrestricted or almost unrestricted in activity. Once the diagnosis of rheumatic heart disease is made with a fair degree of certainty, it is advisable to put the child to bed, if possible, for a period of ob-

Reprinted by permission of *Modern Concepts of Cardiovascular Disease*, July 1937

Many diseases of the chest which were formerly considered rather hopeless are now being successfully treated by surgery. Most notable among these diseases are tuberculosis, bronchiectasis, carcinoma of the lung and constrictive disease of the heart. Furthermore, great progress has been made in the success of surgical treatment of abscess of the lung, chronic empyema, benign tumors of the chest, and many miscellaneous conditions. The subjects mentioned in this paragraph will be presented with lantern slides. Discussion by Henry Kenwell, M.D. and Leon J. Leahy, M.D.

12 00 M "Workings of Obstetrical Council in Erie County" Francis Goldsborough, M.D., Professor of Obstetrics, University of Buffalo. Dr. Goldsborough will review the work of the Survey Committee on Maternal Mortality in Erie County. The preliminary report on the work of this committee was presented at last year's annual meeting by Dr. Goldsborough.

Afternoon Session

2 00 P.M. Business meeting and election of officers

2 15 P.M. "The Private Practitioner and His

Cancer Patient" George W. Cottis, M.D. Campaign of public education. Are the laity being educated faster than the doctors? Some of the more common pre-cancerous and early cancer cases and the responsibility which they impose upon the practitioner. The tragedy of an educated patient and his ignorant or careless physician. Illustrative cases of breast and cervix lesions. Cancer phobia and the danger of unnecessary operations. Resume of accepted practice.

3 15 P.M. "The Surgical Complications of Acute Communicable Diseases" Francis J. Gustina, M.D. The paper is based upon the study of the conditions seen in more than ten thousand cases admitted consecutively to the communicable disease wards of the Buffalo City Hospital. All have been seen by the author. It will be noted that surgical conditions do occur not rarely in these diseases, and one should bear this fact in mind whenever the question arises. Such patients are not to be denied the benefits of early surgery even though their primary condition makes them more serious risks. Early recognition and prompt treatment are often followed by good results.

THE COUNTY SECRETARY

In the organization of medicine to promote the cause of medical science and the joint and indivisible interest of the physician and patient, the real base is the county secretary, says the *Wisconsin Medical Journal*. He collects the dues, not infrequently he arranges the program, he keeps the books and writes the minutes, he gives of his time to see those citizens who would have the county society consider this or that health program, and he orders the dinners and trusts that he has not ordered for more than will be present. All this we, as members, rather take for granted and indeed if a secretary is a good secretary, we proceed to re-elect him year after year, thus recognizing his worth and abilities.

Recognition through re-election is one

form. A more appreciated form is a prompt response of the membership to his occasional requests for aid. When he sends a return postcard to ascertain if we will be present—let us not forget to return it. When he calls for a payment of dues let us recognize his sacrifice of time by not requiring him to send us a second, third, and even fourth statement. When he asks that we aid in arranging the program, let us accept and do that much to help.

The county secretary gives generously and increasingly of his time in this day of perplexing problems that face medicine. We cannot compensate him by a salary, but at least we can recognize his service in little ways that perhaps will be even more appreciated.

A DOCTOR AND A LADY TOO!

In our parents' days, people had rather sour ideas regarding women in medicine, and the sourness is not all gone yet! How could she be a doctor and a lady too! We have proved ourselves ladies by knocking the stuffing out of that tradition. There are only about 7,000 of us in the United States—there should be more. We average good, bad and indifferent, prominent and obscure, relatively the same as men. There

is room for good doctors of both sexes—those with a medical conscience, but little room for any other kind. Most of our women doctors are holding responsible positions and practices to their credit and our pride. Women doctors have their peculiar problems, one of which is: To marry or not to marry—She will probably live to regret either state—*Lucy Stone Hertzog, M.D., Chardon, Ohio*

If the child remains at home throughout his illness, the family must be told of the nature of his disease and how best to care for him. Some families are gifted with the intelligence and ability to administer to their sick, others cannot with the utmost endeavor be taught to manage illness satisfactorily. It is apparent that if the home is not peaceful, or if care is not adequate, the child should be removed if possible. Since it appears that most children with rheumatic heart disease come from

poor families, social workers play a large part in the management of the rheumatic population of a community. Often they form a valuable bond between physician and patient. Little need be said of the importance of the physician, not only for his technical knowledge of the condition with which he is dealing, but for what he may bring, through a long disheartening period, of support and encouragement to the patient and his family.

—ROBERT SALINGER, M D, New Haven, Conn

Recent New York State Psittacosis Cases

Three cases of human psittacosis were reported in upstate July of this year. All three patients were members of one family.

The first person affected was an adult male who became sick on June 21. On July 4 the patient's wife was attacked, and on July 5 his daughter became ill. Illness in each case was characterized by persistent fever with nearly normal pulse and respiration rate, and by a severe unproductive cough without lung changes being observed on x-ray examination. White blood counts on the first patient were within normal limits.

Attempts were made to obtain sputum to examine for the presence of psittacosis virus, but it was not possible to secure satisfactory specimens. Diagnosis was made on clinical grounds and epidemiological considerations.

On investigation it was determined that the first patient raised birds as a hobby, and had an aviary of over 100 birds. This aviary included canaries, finches, white Java sparrows, cardinals, buntings, together with various types of parakeets and love birds. Until about July 1 when he entered

the hospital the patient had permitted no one else to care for these birds. Then, however, his wife and daughter assumed charge of the aviary and shortly thereafter were themselves attacked by psittacosis.

It was also learned that from one to two weeks before onset of symptoms in the bird fancier that various types of birds in his cages had begun to die of unexplained illness.

On August 10, seven parakeets, three love birds, and a canary were secured from the aviary in question. Gross visceral changes typical of avian psittacosis were found in one parakeet. The spleens of several of the other birds, including the canary, were enlarged. Psittacosis inclusion bodies were found within the cells of the last-mentioned parakeet. Mice were injected with material from each of these birds. Thus far, some of those inoculated from all three species have become sick and on autopsy psittacosis inclusion bodies have been demonstrated. As yet, the exact source of the infection among these birds is unknown, but the matter is under investigation.—*Health News*, September 13, 1937

Swimming Pool Manager Arrested for Violating Code

Nicholas Dyruff, manager of Seven Gables Corporation, owners and operators of Woodcliff Amusement Park near Poughkeepsie, was arrested on August 15 on a charge of operating a swimming pool in a park without a permit issued by the acting town health officer, Donald Malven, M D.

Dr Malven refused to issue the permit because of the existence of several violations of sanitary code regulations regarding the operation of swimming pools. As the result, Justice of the Peace Carlton B. Fitchette ordered the pool closed until a permit was issued. According to records of the State Department of Health, this is the first time that such action has been

taken by a local health officer to enforce provisions of the code.

The management decided not to open the pool again this season and further legal action was withheld.

One of the principal violations was the inadequate treatment of the water. Others include failure to maintain proper toilet facilities, failure to maintain sanitary bath houses or dressing rooms and failure to provide properly operated foot baths required for prevention of athlete's foot.

District Engineer J. E. Kirker, Jr., of the Poughkeepsie office assisted Dr Malven in making the inspection.—*Health News*, September 13, 1937

servation How long the child need remain in bed obviously cannot be stated dogmatically Pulse rate, respirations, temperature course, leucocyte counts, throat cultures, sedimentation rate, electrocardiograms, Roentgenograms, all may be used to contribute evidence and help to indicate the child's progress The judgment of the physician as to the condition of the child, however, must be the final court governing the duration of the rest period In any case return to activity should be gradual and the effect of each new privilege carefully observed It is often at the time that permission is first given to relax the stringent regulations keeping the child in bed that he gets quickly out of hand "A little activity" is a difficult thing to enforce Children are not easily taught to move deliberately, as are adults in tuberculosis sanatoria,—at the first loosening of the reins they tend to go into full activity with other children of their age Drugs play a minor role in the regime If cardiac damage is severe, digitalis will be given a thorough trial A tentative calculated dosage of 40 milligrams per kilogram of body weight may be used, but effective dosage is not so uniform as in adults Digitalization within forty-eight hours is desirable, thereafter keeping the child on a maintenance dose. Pulse rate in children may not be affected by digitalis The best guide to dosage is the electrocardiogram, using a P-R interval of 0.2 as an indication that digitalization has occurred, providing of course, that this interval was normal before digitalis was started

Small transfusions of blood, preferably from a donor convalescent from rheumatic fever, should be tried if the child's progress is not satisfactory This is a logical, though little used therapeutic measure Operative procedures, such as cardiac decompression should be considered if adhesive mediastinitis and pericarditis with cardiac compression are present, or when the heart reaches an excessive size Careful attention will be given to the diet, and the child offered a wide choice of foods at regular intervals The caloric intake of course will be watched, and all vitamins provided in some excess During the summer months exposure to sunlight seems of value, and a sun lamp or ultra-violet light may be used during the winter months As the child's strength increases, regular moderate exercise, under careful supervision, is desirable, but must be kept well within the child's functional capacity

In management of the long and often discouraging stage of chronic heart disease

the physician cannot fix his attention exclusively on the heart. He must not forget that he is dealing with a frightened, hurt child, and endeavor at every opportunity to keep up morale. He cannot, or should not leave the child in bed with only his own thoughts to occupy him Some occupation, such as reading, weaving, modeling, painting, should be allowed as soon as possible A possible early return to school for short sessions will often be found the most encouraging promise to offer After the child reaches a certain period in his convalescence it will be noted that his day is quieter if he is allowed to attend school for a limited time.

Let us suppose that the child's progress is satisfactory, and that after six months he is found to be vastly improved, what may be done to minimize the chance of reinfection and another damaging cardiac episode? "The Rheumatic child reacts rheumatically" He is reacting to something not specifically known at present. We are unable to influence his natural reactivity so we must consider the advisability of removing him from the environment where he has the chance to react. This may mean a home away from the family in which he has developed the disease. Convalescent homes, although totally inadequate in number, are available in some localities In general, children are found to do better in these places than in their own homes Better than this is removal of the child from the community where the disease is prevalent, to one, such as Florida or New Mexico, where apparently less rheumatic fever occurs It must be remembered that in any case, following a period of residence away from home, the child almost surely must return to his own family, to be exposed again, as he was originally, to some of the etiological agents of rheumatic fever

The question of the value of tonsillectomy in prevention of recurrences of rheumatic fever is controversial It should be emphasized that if this operation is deemed advisable, complete removal, by means of careful dissection, should be done

The value of early diagnosis may fail to be manifest in many cases in which the course of rheumatic heart disease is relentlessly downhill, but the patient's prognosis surely depends to some extent on early recognition of the disease and application of measures to combat it.

Besides the child himself, others who will probably be involved in his care are his family, a nurse or social worker, and his physician Cooperation between these is highly desirable.

MEDICAL ASSOCIATION MEETING

Number 191

"Subdural Hematoma" Dr Eric Oldberg, University of Illinois College of Medicine Chicago, Ill
 "Toxemias of Pregnancy" Dr Nicholson J Eastman, Johns Hopkins University School of Medicine Baltimore, Md

Wednesday, October 20

DIAGNOSTIC CLINICS

"Hay Fever" Dr J Harvey Black, Baylor University College of Medicine, Dallas, Texas
 "Newer Methods of Vascular Surgery" Dr Wayne Babcock, Temple University School of Medicine Philadelphia, Pa.
 "Bronchitics and Certain Phases of Tuberculosis" Dr Charles R. Austrian, Johns Hopkins University School of Medicine, Baltimore, Md
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 "The Medical Treatment of Arthritis" Dr Cyrus C. Sturges University of Michigan Medical School Ann Arbor Mich
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Scotchman "Doctor what can I do to prevent seasickness?"
 Doctor "Have you a dime?"

Scotchman "Yes, sir"
 Doctor "Well, hold it between your teeth"—Bee Hive

Inter-State Postgraduate Medical Association

The International Assembly of the Inter-State Postgraduate Medical Association of North America, under the presidency of Dr John F Erdmann of New York City, will be held in the beautiful new public auditorium of St Louis, Mo, October 18-22, with pre-assembly clinics on October 16 and post-assembly clinics October 23 in the hospitals of St. Louis

The aim of the program committee, with Dr George Crile as chairman, is to provide for the medical profession of North America an intensive postgraduate course covering the various branches of medical science. The program has been carefully arranged to meet the demands of the gen-

eral practitioner, as well as the specialist. Extreme care has been given in the selection of the contributors and the subjects of their contributions.

The St. Louis Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly.

A most hearty invitation is extended to all members of the profession who are in good standing in their State or Provincial Societies to be present. A registration fee of \$5 00 will admit each member to all the scientific and clinical sessions.

For further information, write Dr W B Peck, Managing-Director, Freeport, Ill

Monday, October 18 DIAGNOSTIC CLINICS

'Cosmetic Results in the Treatment of Concerous Skin Lesions' Dr Joseph Eller, New York Post graduate Medical School New York, N Y

'Hypertensive Heart Disease, Manifestations, Diagnosis, Treatment' Dr Fred M Smith, State University of Iowa College of Medicine Iowa City, Iowa

'Deficiency Diseases' Dr Russell L Haden, Cleveland Clinic, Cleveland, Ohio

'The Symptoms and Treatment of Injuries of the Spinal Cord' Dr Loyal Davis, Northwestern School of Medicine Chicago, Ill

'Types of Obesity and Their Treatment' Dr Reginald Fitz, Boston University Medical School, Boston, Mass.

'Surgical Treatment of Peptic Ulcer' Dr Donald C Balfour, Mayo Clinic, Rochester, Minn

ADDRESSES

'Ulcerative Colitis and Its Surgical Management' Dr Richard B Cattell, Lahey Clinic, Boston, Mass

'The Roentgen Treatment of Infections' Dr Frederick M Hodges, Medical College of Virginia, Richmond, Va.

'Meningitis Secondary to Disease of the Bones and Skull' Dr Wells P Egleton, Newark N J

'The Treatment of Urinary Infections in Infants and Children' Dr John R Caulk, Washington University School of Medicine, St. Louis, Mo

'Prenatal Care' Dr Otto H Schwarz, Washington University School of Medicine, St. Louis Mo

'Granulomatous Lesions of the Intestines' Dr Claude F Dixon, Mayo Clinic Rochester, Minn

'Recent Advances in the Field of Abdominal Surgery' Mr W Hugh Cowie Romanis, FRCS, St. Thomas Hospital, London, England

'The Influence of Drugs Upon the Physiology of the Foetal Heart' Dr Maurice B Visscher, University of Minnesota Medical School, Minneapolis, Minn

'The Mechanism and Treatment of Congestive Heart Failure' Dr Tinsley R. Harrison, Vanderbilt University School of Medicine, Nashville, Tenn

'The Diagnostic Significance of Abdominal Pain' Dr Frederick I Kaltefleiter, Jefferson Medical College, Philadelphia, Pa.

'Carcinoma of the Stomach' Dr Waltman Walters, Mayo Clinic, Rochester, Minn

'Chronic Prostatitis' Dr Cyrus E. Burford St. Louis University School of Medicine, St. Louis, Mo

Tuesday, October 19 DIAGNOSTIC CLINICS

'The Effects of General Infection on the Nervous System of Children' Dr Bronson Crothers, Harvard University Medical School Boston, Mass

'Spastic Paralysis' Dr Alan deForest Smith, Columbia University College of Physicians and Surgeons, New York, N Y

(Subject to be supplied) Dr Dean D Lewis, Johns Hopkins University School of Medicine, Baltimore, Md

'Pitfalls in the Diagnosis of Acute Abdominal Condition' Dr Alton Ochsner, Tulane University of Louisiana School of Medicine, New Orleans La

'Various Types of Edema and Their Treatment' Dr David P Barr, Washington University School of Medicine, St. Louis Mo

'The Management of Compound Fractures of the Extremities' Dr John J Moorhead, New York Post graduate Medical School, New York, N Y

ADDRESSES

'Migraine' Dr Thomas Cecil Hunt, St. Mary's Hospital London, England.

'Cicatricial Enteritis—A Neglected Clinical Entity' Dr Elliott C Cutler, Harvard University Medical School, Boston, Mass.

'The Problem of Ocular Tuberculosis' The Joseph Schneider Foundation Presentation Dr Alan C. Woods, Johns Hopkins University School of Medicine, Baltimore, Md

'Combined Abdomino-perineal Resection for Carcinoma of the Rectum' Dr Thomas E Jones, Cleveland Clinic, Cleveland, O

'Early Diagnosis and Treatment of Cancer of the Cervix' Dr John R. Fraser McGill University Faculty of Medicine, Montreal, Canada

(Subject to be assigned) Dr Marion L. Kline, felter, St. Louis, Mo

'Growth Disturbances of the Pelvis and Femur Resulting from Dislocations of the Hip Joint' Dr Dallas B. Phemister, University of Illinois College of Medicine Chicago, Ill.

'The Post Hoc Ergo Propter Hoc Fallacy in Medicine' Dr Robert D. Rudolf, University of Toronto Faculty of Medicine, Toronto Canada

'Allergy as Related to the Otolaryngologist' Dr Harold G. Tobey, Boston, Mass

'Newer Methods in the Medical Treatment of Peptic Ulcer' Dr Horace H. Soper, St. Louis, Mo

"Subdural Hematoma" Dr Eric Oldberg, University of Illinois College of Medicine Chicago, Ill
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PNEUMONIA CONTROL PROGRAM

Post-Graduate Educational Institutes in Pneumonia for the General Practitioner

The New York State Medical Society in collaboration with the Bureau of Pneumonia Control of the New York State Department of Health and in cooperation with several of the large medical school hospitals of the State will present the following program at the one day Institutes on "The Diagnosis and Treatment of Pneumonia"

MORNING SESSION

- 9 00 Registration
- 9 30 Lecture—The Early Clinical Diagnosis of Pneumonia
- 10 00 Lecture—The Bacteriological Diagnosis of Pneumonia
- 10 30 Lecture demonstration—Oxygen Therapy of Pneumonia
- 11 15 Serum Treatment of Pneumococcus Pneumonia—guest speaker Discussion—based on New York State experience with Type I Serum—1936-37

AFTERNOON SESSION

- 2 00 Group demonstrations on serum treatment
 - 3 00 Clinic Course—complications—x-ray
 - 4 00 Individual conferences with speakers
- Sound moving pictures on serum therapy and nursing care. Outgoing registration

The speakers on the above programs will vary depending on the location of the Institute. The list of the guest speakers at the various Institutes follows

Syracuse	Dr J G M Bullowa
Rochester	Dr Rufus I Cole
Buffalo	Dr Russell Cecil
Albany	Dr Rufus I Cole
New York City	Drs Bullowa and Cecil

A schedule of the institutes with the counties served by each follows

Syracuse Institute, October 12

St Lawrence	Lewis	Onondaga	Broome
Herkimer	Jefferson	Cortland	Madison
Oneida	Oswego	Chenango	Cayuga

Rochester Institute, October 19

Wayne	Seneca	Ontario	Monroe
Tioga	Steuben	Chemung	Yates
Livingston	Schuyler	Tompkins	

Buffalo Institute, October 25

Orleans	Erie	Wyoming
Chautauqua	Cattaraugus	Niagara
Genesee		Alleghany

Albany Institute, November 9

Columbia	Albany	Warren
Schoharie	Saratoga	Hamilton
Schenectady	Washington	Franklin
Montgomery	Clinton	Otsego
Essex	Delaware	Fulton
Greene	Rensselaer	

New York City Institute, November 23

Suffolk	Nassau	Westchester
Rockland	Orange	Dutchess
Putnam	Ulster	Sullivan

Applications are to be sent to Dr Thomas P Farmer, Chairman of the Council Committee on Medical Education of the New York State Medical Society, 608 E. Genesee St., Syracuse.

Announcement of Pneumonia Case Report Award

The Advisory Committee on Pneumonia Control of the New York State Department of Health announces the award of

this prize of \$100.00, for the best report of a series of pneumonia cases, to Walter J Karwowski, M D, Johnson City

Dr Russell M Wilder of the Mayo Clinic, Rochester, Minn., will discuss "Pathogenesis and Etiology of Diabetes" at the next clinical session of the New York Diabetes Association of the New York Tuberculosis and Health Association. The session will be held at 8 30 p.m., October 15, in the Blumenthal Auditorium of Mount Sinai Hospital, 3 E. 99 St., New York

City. Louis I Dublin, Ph D, Third Vice-President and Statistician of the Metropolitan Life Insurance Company and Dr George Baehr will participate in the discussion.

Dr James Ralph Scott, Chairman of the New York Diabetes Association, will preside. The session is open to all physicians and medical students.

Medical News

Albany County

THE ALBANY COUNTY MEDICAL SOCIETY held its annual clam bake on Sept. 15 at Picard's Grove. The invitations were written in a humorous vein. Speaking of the sports program, the committee said "Between the time you arrive and the opening of the bake, if you still have your youthful vigor—and those of you who haven't but won't admit it—you may play baseball, barnyard golf and other innocuous games. Victims of arthritis will be given a suitable handicap (4-ounce bottle of arnica) but ordinary neuritis and the like gets no special consideration."

DR. JAMES E. McDONALD, of Cohoes, who died on Aug. 14, was Mayor of the city in 1920-21 and postmaster from 1922 to 1930. He practiced medicine there for thirty-seven years. His two sons are also physicians, Dr. William B. McDonald and Dr. James E. McDonald.

DR. FREDERIC CROUNSE, who died in Altamont on Aug. 9, practiced medicine there for thirty years and in Albany for ten years, retiring in 1929.

Erie County

VICTIMS OF HAY FEVER became subjects for tests by the Erie County Medical Society in September to determine the value of air-conditioning. The research was conducted in three air-conditioned rooms in the model home located in the Electric Building. Twelve persons were selected each day for the tests. The subjects spent about four hours in the rooms, while the scientists observed reactions to the air conditioning device, which removed about ninety-nine per cent of the pollen from the atmosphere through filtration. Working with the medical society on the project was the recently organized Air Conditioning Council of Western New York. Subjects for the experiments were chosen from persons recommended by the society.

Kings County

THE SECTION ON PHYSICAL THERAPY of the Medical Society of the County of Kings gave a series of three dramatized programs, illustrating some highlights in the development of physical medicine, over station WBBC, as follows: Sept. 13, "Sun-

shine from a Lamp," Sept. 20, "The Nerve of a Frog," Sept. 27, "Fever for Health." The programs were presented under the auspices of the Subcommittee on Radio Broadcasting of the Public Health Committee of the Medical Society of the County of Kings.

DR. JOSEPH SAMENFELD died in Germany, on Sept. 4. Dr. Samenfeld was a consulting physician on the staff of Lutheran Hospital, and on the visiting staffs of St. Catherine's, Mary Immaculate and Jewish Hospitals. During the World War Dr. Samenfeld had charge of gassed and wounded men returned for treatment. He received a medal from Congress. During the administration of former Mayor James J. Walker he was appointed chief of administration of Greenpoint Hospital.

Monroe County

A FLIPPANT WRITER for a Rochester newspaper reports that on Aug. 26

"The legal method of hitting a golf ball proved too expert for the men of medicine at Monroe Golf Club as members of the Rochester Bar Association took the measure of the Monroe County Medical Society golfers, 84½ to 50½."

"Led by barrister Calkins, who threw a 78 at the discomfited doctors, the lawyers ran away with the ball game. Best medical effort was contributed by Dr. G. B. Van Alstyne, who scored a creditable 80."

"Following the match, dark rumors spread among the doctors' forces to the effect that the lawyers had several ringers on their team, and court procedure was threatened at a later date."

"A huge turnout was on hand for the annual links collision."

New York County

THE TENTH ANNUAL GRADUATE FORT-NIGHT of the New York Academy of Medicine will be held November 1 to 12, with the sessions devoted to a consideration of "Medical and Surgical Disorders of the Urinary Tract."

DR. CHESTER TILTON STONE, 51, urologist at Bellevue Hospital, died at St. Luke's Hospital of heart disease on Aug. 27. He wrote for many medical reviews, and published several books, of which the best

known were "Blood Pressure" and "Dangerous Age"

DR EVERETT WILLOUGHBY GOULD, physician and trustee of Columbia University, died in August at the Forest Lake Club, Hawley, Pa. He was sixty-three. In addition to his general practice, he was consulting pediatric physician at St. Luke's Hospital.

Oswego County

THE MEDICAL SOCIETY OF THE COUNTY of Oswego asks the various Secretaries of other County Societies to post a notice in their Bulletins that the Oswego County Annual Meeting will be held October 14. The guest speaker will be Morris Fishbein, M.D., Editor of the *American Medical Association Journal*. His topic will be "Medicine and National Policies."

Dinner reservations can be made by writing the Secretary of the County Society, J. J. Brennan, M.D.

Queens County

THE EXECUTIVE BOARD OF THE Auxiliary of the Medical Society of the County of Queens met on Sept 7 under the presidency of Mrs. John W. Mahoney.

Rockland County

THE ANNUAL CLAMBAKE of the Rockland County Medical Society was held in "The Grove" at Summit Park Hospital with approximately seventy-five county and visiting physicians and their friends as well as county officials in attendance, on Sept 1.

Prior to the opening of the bake many of the guests took the opportunity to go through the newly finished hospital building which this time last year was only about half completed. The removal of the old building which it replaced and the stately appearance of the new structure came in for admiring comments by the guests as they were shown about by Architect Frederick Mellor, Superintendent W. W. Reynolds, and Dr. Ryan. The grounds have been attractively landscaped so that no trace of the old building now remains and a grass plot sweeps across toward the new red brick building set against a background of trees.

A PLUMBING CODE for Rockland County was declared a necessity by Dr. George Unsworth, Dr. William J. Ryan and Frank S. Barnes speaking to one hundred persons who attended the annual dinner of the

Master Plumbers Association at Villa Lafayette, Spring Valley, on Sept 3.

Dr. Unsworth, president of the Rockland County Medical Society and Suffern trustee, pointed out that investigation has decisively proved that water-borne diseases can in most cases be traced to faulty connection and drainage in plumbing systems.

"A modern water system is a monument of health to the community it serves," said Dr. Unsworth. "Plumbers should be required to know the simple laws of sanitation. Some plumbers violate sanitary rules, not through ignorance, but through greed and indifference."

Schoharie County

DR HERBERT R. BENTLEY, who died on Aug 26, was a past president of the Schoharie County Medical Society. He was sixty-five, and for thirty years was the only physician at Central Bridge.

Suffolk County

MISS MARY LIVERMORE, executive secretary of the Huntington Social Service League, was the guest speaker at a luncheon meeting of the Women's Auxiliary to the Suffolk County Medical Society on Aug 25, at Sayville. Miss Livermore spoke on "Hobbies for Handicapped Children," a project inaugurated by the auxiliary recently.

MRS. JOHN L. BAUER of Brooklyn, assisted by Mrs. Edwin C. Kolb of Holtsville, gave a benefit bridge for the Welfare Fund of the Women's Auxiliary to the Medical Society of the County of Suffolk, on Sept. 3.

Westchester County

THE WESTCHESTER COUNTY MEDICAL Society opened the 1937-38 season of Scientific Programs with a paper on the "Treatment of Acute Head Injury," given by Dr. Foster Kennedy at the regular meeting on September 21, at Grasslands Hospital. Dr. Kennedy is Professor of Clinical Neurology at Cornell University Medical College.

FINAL ACTION WILL BE TAKEN at the October meeting of the Westchester County Medical Society on the recommendation of the Comitia Minora that the annual dues be increased from \$15 to \$25 for senior members, and from \$7.50 to \$12.50 for juniors, effective in 1938. These dues are entirely separate from the State Society assessment of \$10 annually, which is paid through the County Society.

Hospital News

Accidents in Hospitals

THERE ARE "INNUMERABLE CHANCES for accidents" in the day's work in a hospital unless the service is skillful, conscientious, and careful, says a worker whose paper appears in *The Modern Hospital*. Hospital service is usually given under constant physical and mental strain, pressure, haste and tension, and any persons who are habitually careless or inattentive, or whose minds are on outside personal or social interests, or who are ignorant and irresponsible by nature or disposition, have no place there.

The patient himself may often cause the accident which injures him. He may be weak or faint, and fall easily, or may be using crutches, which he does not know how to manage. He may not be used to the narrow, high hospital beds with the new inner-spring mattresses, which are very resilient and buoyant, and may fall out of bed on the floor. If bed-sides are arranged to prevent this, the patient often resents having them and vigilant care is needed by the medical and nursing personnel, bed-sides of canvas or other material may be used, and personal restraints may be necessary.

Smoking in bed is another serious problem, remarks the author of this paper, Miss Anna D. Wolf, who presented it recently at a meeting of the Greater New York Safety Council. It is permitted more often now than ten or twenty-five years ago, and when efforts are made to control it, say, by limiting smoking to certain hours, the patient is apt to secrete his supplies of cigarettes and matches, smoke surreptitiously, and tuck away a lighted cigarette under his pillow when the nurse approaches. This is the kind of accident likely to happen at night, when fewer nurses are on duty and their visits are less frequent. A patient asleep on a smoldering pillow is an alarming sight not soon forgotten.

Some patients, of course, are mentally disturbed or delirious, and striking, biting, and hitting with nearby objects by patients are possible occurrences which the nurse must guard against. The removal of articles likely to be used for missiles and the

use of unbreakable materials and medical and nursing measures are usual precautions in the care of patients. Accidental burns do happen, despite all precautions, and despite the fact that they are considered a disgrace by the nursing staff. The use of heat in its various forms, dry or wet, or the use of chemicals, are usual causes. Electrical appliances are being used more and more in the hospital wards, and more and more vigilance is therefore needed.

Falls may be due to the condition of the floors, often highly polished, and the use of scatter rugs without nonskid pads. Objects misplaced, spilled water or solutions add to the hazards.

A hypodermic needle may be imperfect and snap off when injected, thermometer or glass irrigating nozzle may be cracked and break while in use, a caustic solution may be splashed near a patient, an examining table or wheel chair may tip if its supports are not secure. A constant check on equipment, prompt repair, supervision and careful performance of services are the best controls against accidents which lie largely in the hands of the nursing service.

Errors in medication which occur infrequently are guarded against by every possible means. Strict regulations in writing orders, detailed and errorproof techniques in carrying out the procedure, and complete attentiveness to the task at hand are the best safeguards against such mistakes. Special precautions, as coloring certain solutions, the use of particular kinds of receptacles for others, and the specific placement of highly potent drugs are used to promote safety. Many errors may be made by the confusion of patients, misreading the label, miscalculating or misinterpreting orders and trusting memory in pouring the drug. Contributory causes are generally haste, interruption, inattentiveness or concentration on other elements in the situation which distract a person from the immediate requirement. The chance of human error must be reckoned with.

Nine commandments for the prevention of accidents are listed thus

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about ready to "burst its walls." Architects were called in to make a preliminary study and in conference with the staff and others interested were informed that there was a definite need of expansion in every direction, practically all facilities appeared to be inadequate.

Fortunately, before further steps were taken, one member of the executive committee called for definite facts and statistical analyses for the past ten years. Figures on a truly comparative basis were available for a six year period. These showed that only the fifty-three adult ward beds

had been occupied to 97 per cent capacity during 1936. The conclusion was inevitable any general expansion was uncalled for, rather, there was merely a shortage of adult medical and surgical beds. A building program providing twenty-four such beds with a few other changes at a cost of \$75,000 took care of all needs instead of the original plan of constructing a new wing at a cost of about a quarter of a million dollars. The community was saved an unnecessary expenditure of \$175,000 plus interest on that sum for a period of at least five years, a total saving of say \$215,000.

Improvements

AS THE SITE FOR A NEW BUILDING to house its out-patient department the nine brownstone houses at 51 to 59 East 123 Street and 52 to 58 E. 124 Street, New York City, have been bought by the Hospital for Joint Diseases, which occupies the adjacent block-front in Madison Avenue, between East 123rd and 124th Streets, facing Mount Morris Park. The houses were bought for \$150,000 according to an announcement by Frederick Brown, president of the institution.

The houses, with three structures acquired previously, comprise a plot 151 by 100 feet in 123d Street and 72 by 100 feet in 124th Street. They will be razed and an L-shaped building erected on the site.

THE LENOX HILL HOSPITAL, in New York City, through a purchase just made of the building at 1080 Lexington Ave., has rounded out its ownership of the entire square block.

A new building, to be known as the Einhorn Memorial, is now nearing completion at 129 E. 76 Street. It will contain an auditorium, swimming pool and other appurtenances for hydrotherapeutic treatment.

WORK ON THE NEW FIVE-STORY ADDITION to the Buffalo General Hospital is going forward rapidly, and it is expected to be ready in the late fall. The addition is planned to enlarge and improve surgical facilities. Six new air-conditioned operating rooms will occupy the fifth floor. Former surgical rooms will be maintained, augmented with the latest in hospital equipment.

A SEVEN-STORY ADDITION to St. Clare's Hospital, New York City, is under construction on the adjoining vacant plot to the west of the present six-story structure. Excavation has been completed and the foundation started.

The entire building will be so arranged that air-conditioning may be had if desired. All private rooms will have baths, showers, and toilets. The most modern lighting and signal systems will be installed and all wards and semi-private rooms will be designed to insure maximum comfort. The structure is expected to be ready in about a year.

The main floor will have a large foyer leading to elevators, reception rooms, executive and business offices, record and staff rooms, doctors' library and conference room. The sisters' chapel will be preserved in its present location.

In the basement will be the receiving and accident rooms, morgue, pharmacy and nurses' quarters. The second, third, fourth and fifth floors will be devoted to private and semi-private rooms and wards. On the sixth floor will be the operating rooms. On the seventh floor will be a roof garden and four private rooms.

Other features of the structure include the installation of leadened chambers for x-ray treatments, special rooms for the application of radium molds and radon gas emanations, and operating rooms equipped with electro-surgical apparatus. The hospital is operated by the Third Order of the Sisters of St. Francis.

THE NEW YORK CITY DEPARTMENT OF HOSPITALS has filed plans for a \$10,000

1 Adequate numbers and discriminating selection of all personnel from the standpoint of personal and professional fitness

2 Detailed instruction of all personnel and patients

3 Meticulous and detailed workmanship

4 Constant and careful supervision of the service with constructive criticism

5 Elimination of those who evince repeated irresponsibility and carelessness

6 Careful selection, check up and repair on all equipment.

7 Complete and detailed investigation of all incidents which may result in injury to those involved

8 Remedial measures against subsequent recurrence.

9 Building up and establishing a consciousness on the part of every individual that safety is the criterion for all activities

Those Costly Empty Beds

IT IS A STARTLING FACT that on the average day the general hospitals of the country are carrying fifty or more empty beds for every hundred occupied. That is the statement of Mr Charles F Neergaard, Chairman of the Committee on Hospital Planning and Equipment of the American Hospital Association, in an article in the *Journal of the AMA*. This fact, moreover, he adds, has not been generally realized in medical and hospital circles, its significance in terms of money has not been understood.

"The most wasteful thing in a hospital," he declares, "is a bed that is never needed," and he cites a report of his committee which claims that a far smaller margin of empty beds would be better. Instead of three beds for every two patients, it is sufficient to have five for every four. On this basis the general hospitals in 1934 had 87,500 beds more than they required, an excess that "had cost the public in fixed charges \$61,250,000—a sum sufficient to have paid for the care of nearly a fifth of all the patients whom the hospitals had treated that year."

Idle beds, he points out, are a heavy charge on institutions already suffering from a crushing load of charity work. This is of particular importance in view of the clear indications that hospital construction is being resumed on an increasing scale. The *Modern Hospital* reports 578 building projects last year aggregating nearly \$100,000,000. From coast to coast medical staffs are urging the need for new hospitals or the expansion and modernization of old ones. Before the hospital field embarks on a new era of construction or reconstruction based on hazy or incomplete knowledge, an effort should be made to determine some method of appraisal that will indicate in any given situation or locality how many beds are actually needed to cover a reason-

able reserve for peak loads. Construction programs beyond that point are wasteful and unsound, a handicap to management and an inexcusable drain on the all too limited funds available for health and philanthropic purposes.

What is more, figures disclose that the occupancy statistics show peak loads on an average of 17.4 days, or less than five per cent of the year. Even more worthy of note is the fact that in half of the total the peak loads occurred on ten days or less. This would indicate that for at least 355 out of 365 days the excess or reserve beds are rarely if ever used.

The nation's investment in general hospitals, we read further, averages \$5,000 a bed, with annual fixed charges at \$700 (\$250 for interest, \$150 for depreciation and \$350 for "readiness to serve" cost). As previously mentioned, the American Hospital Association report found that more than 87,500 beds are being maintained in this country in excess of needs, representing frozen capital of over \$437,000,000 and annual fixed charges of \$61,250,000.

Over half a million beds are now being maintained in this country in nongovernment hospitals and, notwithstanding about 145,000 idle beds in 1935, new beds are being added at the rate of seventy-seven each day according to statistics for the year 1936 compiled by the Council of Medical Education and Hospitals of the American Medical Association. As Dr Haven Emerson has said, "It seems preposterous to continue such relative idleness as is represented by an average occupancy of but sixty to seventy per cent of hospital beds."

The recent experience of one hospital, as told by this authority, is interesting. During the latter part of 1936 it experienced a gratifying increase in occupancy and agitation was started for "a new wing." There was a general feeling that the hospital was

Medicolegal

LORENZ J. BROSNAN, Esq.

Counsel Medical Society of the State of New York

Malpractice—Judgment of Surgeon as to Methods

The highest Court of one of the Western States this year passed upon a malpractice case in which the principal question was the extent to which a surgeon is entitled to follow his best judgment as to choice of methods.* The decision favoring the doctor is one which merits space in these columns.

The plaintiff in the action was the husband of a patient who had died following an operation performed by the defendant, Dr. G. The claim was that the malpractice of Dr. G. had been the cause of the patient's death.

It appeared that the patient when in about the fifth month of pregnancy suffered from severe hemorrhages, and entered a county hospital where she came under the care of Dr. G. who was in general charge of the hospital as county physician. The same evening after an examination and consultation with another physician Dr. G. obtained the consent of the patient and her husband and performed a cesarean operation. The fetus was removed, together with her appendix and tubes which were found to be diseased. Following the operation peritonitis developed and within a week the patient died.

The plaintiff in his complaint against Dr. G. charged principally that the cesarean operation had been an improper method of procedure, and consequently had caused the death of his wife. The defendant in his answer denied all negligence and denied that the operation was the proximate cause of death.

Upon the trial which resulted in a judgment in favor of the plaintiff, the plaintiff produced several physicians as experts as did the defendant.

One of the plaintiff's medical witnesses Dr. A. had attended the patient from time to time for two months prior to her hospitalization. He had observed her hemorrhages and had advised her entry to a hospital for the purpose of the evacuation of the uterus. He testified that in his opinion a cesarean should not have been performed, but that it was a well-defined case of miscarriage. However, Dr. A. admitted while on the witness stand that he had never performed a cesarean operation him-

self having only assisted at several such operations, none of which were cases of placenta previa. He conceded that the doctor in attendance is better qualified to diagnose a case than a doctor not in attendance. He admitted that his opinion assumed there was no placenta previa present. He also stated that he did not criticize the defendant for removing the tubes and appendix, and that he did not know whether the patient would have died if they had not been removed.

Another physician, Dr. D. testifying for the plaintiff stated his opinion that cesarean section was not proper or approved practice. He admitted that he had reached that conclusion without knowing the contents of the hospital record. (He had never examined the patient.) Dr. D. also agreed that there was a difference of opinion among medical authorities as to the propriety of a cesarean operation at less than a full term pregnancy. He also conceded that the physician in charge is the best judge of a patient's condition, and that he in deciding whether to operate a given case had to rely on his own best judgment.

Three other physicians who had never seen the patient, appeared as expert witnesses for the plaintiff and condemned the procedure adopted by him, giving testimony similar to doctors A. and D. when cross-examined.

Dr. G. testifying in his own defense, established that he had an extensive experience in surgery and obstetrics, and that he had had previous cases of placenta previa. He described having, after consultation with Dr. B., concluded that the case was one of placenta previa, and having decided, following his best judgment, to operate by cesarean section. He stated that he removed the placenta and fetus and found the tubes diseased and full of pus, and the appendix ulcerated, which he removed. The entire procedure, it seems, required just less than an hour. Dr. G. further testified to having devoted every effort after the operation to safeguarding the life of his patient but to no avail. He testified that he had in all respects complied with the general and proper practice in similar localities in like cases.

Dr. B., the consultant, Dr. H., the anes-

* Gleason v. McKeehan, 66 Pac. (2nd) 808

alteration job on the Hospital for Contagious Diseases, Brooklyn

Fireproof material will be installed and many sections of the institution which heretofore have been regarded as obsolete will be modernized

A REQUEST FOR NEGOTIATIONS by which New York City would obtain from Fordham University land on which to erect a tuberculosis hospital has been referred to the Comptroller by the Board of Estimate

A SIX-STORY HEALTH CLINIC will be erected by the Department of Hospitals at First Avenue and East Twenty-fifth Street, New York City. It will occupy a plot 99 11 by 49 2 feet at the northwest corner and will cost \$275,000

GROUND HAS BEEN BROKEN for the new addition to the Jewish Sanitarium and Hospital for Chronic Diseases in Brooklyn

Newsy Notes

THE HOSPITAL FOR JOINT DISEASES, New York City, announces a vacancy in Residence in Hospital Administration, to begin Jan 1, for three years. The hospital provides full maintenance and \$600 the first year, \$900 the second, and \$1200 the third. The requirements are graduation from a grade A medical school, two years general internship in a hospital of 200 beds, satisfactory references on personal qualities, and a desire to make hospital administration a life work.

A NEW TYPE OF HOSPITAL SHEETING made from "Cavalite" rubber-coated silk has been developed in the laboratories of the du Pont Company. Extremely light and smooth, it has been designed to fit snugly to the mattress, and, when covered with the bed sheet, its presence cannot be felt by the patient. A series of tests, reproducing every condition of rigorous hospital usage, was arranged to gauge the properties of the material. These included baking for thirty-five days in a Geer oven, a twenty-four hour period in which five sterilization preparations were applied, a four-hour exposure to steam, twenty-four hours of alcohol immersion, and twenty-four hours of ether, perspiration and urine testing. The sheeting showed no change throughout the tests. The new "Cavalite" sheeting is completely waterproof.

IT WILL COST NEW YORK CITY half a million dollars annually if the status of hospital interns is changed from clinical apprentices working for experience and little money to city employees drawing \$1,000 a year plus board and lodging, Dr S S Goldwater, Commissioner of Hospitals,

warned the Board of Estimate recently.

In a report asked by the Mayor and the other members of the board, Dr Goldwater urged them to go slow lest they lend support to many other groups within the department which are anxious to win salary increases.

"I see no reasonable objection," he wrote, "to legitimate efforts of this kind. I am certain, however, that if the interns succeed in obtaining mandatory legislation in their favor other groups of employees in the department will follow suit."

"It is for the Board of Estimate to decide whether it desires to encourage this form of activity as a method of fixing the salaries of city employees. The conditions of employment for interns should, of course be reasonable, just and proper, but the same is true of every other group of department officials and employees."

Interns once served a year without remuneration but in 1936 they were granted \$15 monthly plus their lodging. Commissioner Goldwater pointed out that New York occupies middle ground between those which pay interns larger salaries and those which follow the traditional system.

The pay rises included in the Burke bill before the Board of Estimate would, if followed throughout the country, add \$6,000,000 to the nation's hospital bill, Dr Goldwater said.

DR ROBERT E PIUNKETT general superintendent of tuberculosis hospitals of the State Department of Health, has been invited by the California State Department of Health to make a survey of the tuberculosis program in the Los Angeles County Department of Health.

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It appeared that the patient when in about the fifth month of pregnancy suffered from severe hemorrhages, and entered a county hospital where she came under the care of Dr. G. who was in general charge of the hospital as county physician. The same evening after an examination and consultation with another physician Dr. G. obtained the consent of the patient and her husband and performed a cesarean operation. The fetus was removed, together with her appendix and tubes which were found to be diseased. Following the operation peritonitis developed and within a week the patient died.

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Upon the trial which resulted in a judgment in favor of the plaintiff, the plaintiff produced several physicians as experts as did the defendant.

One of the plaintiff's medical witnesses Dr. A. had attended the patient from time to time for two months prior to her hospitalization. He had observed her hemorrhages and had advised her entry to a hospital for the purpose of the evacuation of the uterus. He testified that in his opinion a cesarean should not have been performed, but that it was a well-defined case of miscarriage. However, Dr. A. admitted while on the witness stand that he had never performed a cesarean operation him-

self having only assisted at several such operations, none of which were cases of placenta previa. He conceded that the doctor in attendance is better qualified to diagnose a case than a doctor not in attendance. He admitted that his opinion assumed there was no placenta previa present. He also stated that he did not criticize the defendant for removing the tubes and appendix, and that he did not know whether the patient would have died if they had not been removed.

Another physician Dr. D. testifying for the plaintiff stated his opinion that cesarean section was not proper or approved practice. He admitted that he had reached that conclusion without knowing the contents of the hospital record. (He had never examined the patient.) Dr. D. also agreed that there was a difference of opinion among medical authorities as to the propriety of a cesarean operation at less than a full term pregnancy. He also conceded that the physician in charge is the best judge of a patient's condition and that he in deciding whether to operate a given case had to rely on his own best judgment.

Three other physicians who had never seen the patient appeared as expert witnesses for the plaintiff and condemned the procedure adopted by him, giving testimony similar to doctors A. and D. when cross-examined.

Dr. G. testifying in his own defense established that he had an extensive experience in surgery and obstetrics and that he had had previous cases of placenta previa. He described having, after consultation with Dr. B., concluded that the case was one of placenta previa and having decided following his best judgment to operate by cesarean section. He stated that he removed the placenta and fetus and found the tubes diseased and full of pus and the appendix ulcerated which he removed. The entire procedure, it seems, required just less than an hour. Dr. G. further testified to having devoted every effort after the operation to safeguarding the life of his patient but to no avail. He testified that he had in all respects complied with the general and proper practice in similar localities in like cases.

Dr. B., the consultant Dr. H. the anes-

alteration job on the Hospital for Contagious Diseases, Brooklyn

Fireproof material will be installed and many sections of the institution which heretofore have been regarded as obsolete will be modernized

A REQUEST FOR NEGOTIATIONS by which New York City would obtain from Fordham University land on which to erect a tuberculosis hospital has been referred to the Comptroller by the Board of Estimate

A SIX-STORY HEALTH CLINIC will be erected by the Department of Hospitals at First Avenue and East Twenty-fifth Street New York City. It will occupy a plot 99 11 by 49 2 feet at the northwest corner and will cost \$275,000

GROUND HAS BEEN BROKEN for the new addition to the Jewish Sanitarium and Hospital for Chronic Diseases in Brooklyn

Newsy Notes

THE HOSPITAL FOR JOINT DISEASES, New York City, announces a vacancy in Residency in Hospital Administration, to begin Jan 1, for three years. The hospital provides full maintenance and \$600 the first year, \$900 the second, and \$1200 the third. The requirements are graduation from a grade A medical school, two years general internship in a hospital of 200 beds, satisfactory references on personal qualities, and a desire to make hospital administration a life work

A NEW TYPE OF HOSPITAL SHEETING made from "Cavalite" rubber-coated silk has been developed in the laboratories of the du Pont Company. Extremely light and smooth, it has been designed to fit snugly to the mattress, and, when covered with the bed sheet, its presence cannot be felt by the patient. A series of tests, reproducing every condition of rigorous hospital usage, was arranged to gauge the properties of the material. These included baking for thirty-five days in a Geer oven in a twenty-four hour period in which five sterilization preparations were applied, a four-hour exposure to steam, twenty-four hours of alcohol immersion, and twenty-four hours of ether, perspiration and urine testing. The sheeting showed no change throughout the tests. The new "Cavalite" sheeting is completely waterproof

IT WILL COST NEW YORK CITY half a million dollars annually if the status of hospital interns is changed from clinical apprentices working for experience and little money to city employees drawing \$1,000 a year plus board and lodging, Dr S S Goldwater, Commissioner of Hospitals,

warned the Board of Estimate recently

In a report asked by the Mayor and the other members of the board, Dr Goldwater urged them to go slow lest they lend support to many other groups within the department which are anxious to win salary increases

"I see no reasonable objection," he wrote, "to legitimate efforts of this kind. I am certain, however, that if the interns succeed in obtaining mandatory legislation in their favor other groups of employees in the department will follow suit

'It is for the Board of Estimate to decide whether it desires to encourage this form of activity as a method of fixing the salaries of city employees. The conditions of employment for interns should, of course, be reasonable, just and proper, but the same is true of every other group of department officials and employees'

Interns once served a year without remuneration but in 1936 they were granted \$15 monthly plus their lodging. Commissioner Goldwater pointed out that New York occupies middle ground between those which pay interns larger salaries and those which follow the traditional system

The pay rises included in the Burke bill before the Board of Estimate would, if followed throughout the country, add \$6,000,000 to the nation's hospital bill. Dr Goldwater said

DR ROBERT E PIUNKETT general superintendent of tuberculosis hospitals of the State Department of Health, has been invited by the California State Department of Health to make a survey of the tuberculosis program in the Los Angeles County Department of Health

Across the Desk

A Worldwide Epidemic—of "Jitters"

THE PRESIDENT OF THE UNITED STATES remarked the other day in a press conference that the whole world is growing "jittery," and as we survey the flaming newspaper headlines over our morning bacon and eggs we must admit that he is some diagnostician. Just what the "jitters" are, medically speaking, is open to definition and any of our learned neuropathologists are at liberty to have a whack at it but it has been common talk for years that our civilization has reached a pitch where it is getting on everybody's nerves. We become "high-strung," excitable, "jittery."

Mr. Roosevelt is not the only one either to put his finger on this dangerous condition. Lord Harder, in a recent address to the Royal Institution of Great Britain, declared that war is "the greatest of all modern diseases, though it is primarily a disease of the mind and not of the body." That is the outbreak of war here and there are symptoms of mental upsets. Rages and bursts of fury in an individual denote disorder of the mind, then why not in a nation, which is only a collection of individuals? The British Medical Association at a recent meeting adopted a resolution asking the Health Organization of the League of Nations "to deal with the psychology of war on similar lines to the section now dealing with epidemiology."

It Takes Strange Forms

There it is War Mentality is a psychopathic disorder that may break out into a disastrous and destructive epidemic. It first appears as simple or common "jitters," and should be watched with great care. When the League measures get going, we may see alert and husky health officers quietly stalking the jingoistic "100 per cent patriots" and hurrying them off to quiet retreats where they can be calmed down and, as it were, de-jittered.

Another form of jitters, widely prevalent, takes the shape of panic, or dread of war. The British people believe that the next war will start, unheralded, in the middle of the night, with hundreds, or even thousands, of planes filling the skies over England and

raining bombs of poison gas, flame, and high explosive on every roof and its sleeping inhabitants. It may be next week, tomorrow, tonight. Gas masks have already been provided for practically the entire population, and drills in their use are held everywhere. Lawns are catcombed with gas-proof underground chambers, gas-proof baby-carriages are on sale, and everyone is in a state of tense nerves and trepidation. They have the jitters.

Russia, in turn, has a spy fever. Every good "comrade" is officially urged to spy on every other "comrade," to catch him in some unguarded word or act that seems unpatriotic, so he can be stood up against a wall and shot. Everybody feels that everybody else is "after" him. The newspapers in that wonderful land of comradeship tell of hundreds and hundreds who have faced firing squads or have simply disappeared—"liquidated" is the official word, or, as we might say, poured down the drain. The happiness of living in that utopia has been painted in rosy colors by some of our pinkish illuminati, but in this particular investigation, paving the way, so to speak, for the epidemiological experts of the League of Nations, we can only write the land of Stalin down as another region with jitters.

The two great Fascist nations of Europe ought to be lands of perfect mental calm and quiet, for we are told, by their critics, at any rate, that nobody is permitted to do any thinking of his own, so that one's mentality should be entirely free from the slightest disturbance. Everyone's thinking is done for him—a delightful arrangement. Yet even there we hear of "liquidations," disappearances, fear of spies, all clear symptoms of jitters.

Space is lacking to explore this important subject further. We can look forward perhaps to specialization in jitters by eminent neurologists, to the addition of Professors of Jitters to our medical college faculties, and to great international Jitters Congresses, with learned and profound papers on its various manifestations and complications. In that day it is to be hoped that this humble introduction to its proper study will not be forgotten.

thetist at the operation, and a number of other doctors were called as witnesses by the defendant, and all approved the methods he had followed. All agreed that the case described was one of placenta previa, and that in his judgment he was entitled to operate as he had. The said witnesses also showed that the defendant had not increased the danger of infection, and that it was very doubtful if the patient could have lived if any other procedure had been adopted.

From the judgment in favor of the plaintiff, the defendant, Dr. G. took an appeal to the highest Court in the State. That Court determined that the evidence entitled the defendant to a nonsuit and reversed the judgment. In so ruling the Court said in its opinion:

This is not a case indicating that the defendant was incompetent, or that he failed to exercise his best judgment, or that he went outside of the recognized field of practice. All professional witnesses testifying made it clear that the controlling element in every case, such as here presented, is the attending doctor's ability and the exercise of his personal judgment, that they were so controlled in their own practice. Before liability attached to defendant in this case, it must have been shown that he was unskillful or negligent, and that through a lack of his skill or care, the patient died. By the evidence, the contrary is either shown or not questioned. It is undisputed that defendant is and was an experienced physician and a skillful surgeon thoroughly familiar with cases of this nature, and apparently far more so, than anyone testifying either in his behalf or for the plaintiff. What was proper in the way of treatment or surgical procedure had to depend upon the condition found at the time of the operation of which complaint is made, and not upon a different condition said to have been present several hours before. Where the general consensus of

the opinion of all physicians testifying was to the effect that the physician or surgeon then in charge must be controlled by his best judgment, then it should not lie in the mouth of any witness to condemn the exercise of such judgment when exercised by an admitted skillful or experienced physician, and especially when each witness, testifying as an expert in such matters, reserved unto himself the right to exercise his own judgment in his cases and to proceed accordingly. The defendant did not undertake a wholly new experiment but, according to the evidence, followed a method that had been previously used with success by himself, and a procedure—admittedly rare—but known to have been sometimes used. As to the exact time when such an operation, as was here performed, is to be resorted to, it appears that the text writers are not fully in accord. Had defendant adopted a different course, it would have been contrary to his personal judgment, evidence of lack of professional knowledge in such matters, and he would have been guilty of not employing his best skill and care which ultimately was to be exercised in the case in hand. The first requirement in such matters is that the physician in attendance be competent in such matters, and, necessarily he must be careful. Nothing more can attend to meet urgent circumstances. He is not, and never can be, a warrantor of cures, or even favorable results. Intervening causes may sometimes thwart the highest skill employed in the accustomed or only procedure known.

This record presents a clear case in which the medical witnesses disagree, and in such circumstances the competent physician in charge is bound only to exercise his best skill and judgment in determining the course to be followed and acting accordingly. In so doing he incurs no liability. It is for him to accept and act upon one practice or the other, and not for a jury blindly to determine the course which should have been followed, by a verdict of liability.

When you come home as daylight dawns,
Who turns in bed, and only yawns?

The Doctor's Wife.

In broken bone or typhoid fever,
Who thinks you're tops like John B
Deaver? The Doctor's Wife.

When accounts run low and it's your crisis,
Who lets you down by easy lysis?

The Doctor's Wife

When you're so tired you could die,
Who lifts the 'phone and tells a lie?

The Doctor's Wife

'Less some one lies and screams with pain,
Then sends you out in snow or rain?

The Doctor's Wife.

If I am by you understood
Who takes care of the neighborhood?

The Doctor's Wife

VACANCY FOR MEDICAL OFFICER

The U S Civil Service Commission announces an open competitive examination for the position of associate medical officer at \$3,200 a year. Applications must be on file with the Commission at Washington not later than Oct 18. Forms may be had

from the Secretary, Board of U S Civil Service Examiners, at any first-class post-office, from the U S Civil Service Commission, Washington, D C or from the U S Civil Service District office, Federal Bldg, Christopher St., New York City

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October 1, 1937]

is given with little critical discussion of their pathogenesis. For the purpose that it was intended, we suppose it is adequate, and can serve only as a guide for more detailed study. It can never replace for the student the bigger and more complete texts.

DAVID M. GRAYZEL

Operative Surgery By Alexander Miles, M.D. and D. P. D. Wilkie, M.D. Second edition. Octavo of 631 pages, illustrated. New York, Oxford University Press, 1936. Cloth, \$7.25.

This volume of 631 pages with 329 illustrations appears as the second edition. The first edition was published in 1933 and was called "Manual of Surgery." At that time it was reviewed by the writer. He has therefore had the privilege of comparing the two editions.

The text has been completely revised to its decided advantage. Many new illustrations have been included. Generally speaking only one operative procedure is described and this procedure is the one preferred by the coadjutor, of which there are seventeen. We think, without exception, all of these coadjutors are from Edinburgh. The work, therefore, is a cross section of the present day practice of surgery in that city.

It is intended primarily for undergraduates studying surgery, for recent graduates, and for house surgeons who need a ready reference for their daily surgical problems. It is also recommended for those surgeons seeking higher surgical diplomas.

MERRILL N. FOOTE

Internal Diseases of the Eye and Atlas of Ophthalmoscopy By Manuel U. Troncoso, M.D. Quarto of 530 pages, illustrated. Philadelphia, F. A. Davis Company, 1937. Cloth, \$15.00.

It would seem that the fruit of the economic depression has ripened in the leisure hours of that period, and has now been brought to the ophthalmological market in the form of a new literature. Among these recent volumes dealing with the eye, we find this unique work of Troncoso. *Unique* seems a fitting adjective, for the volume is quite different in plan from any which has appeared in the English language. It might have been titled "Ophthalmology for the Internist," for such it is, and in this capacity will fill a longfelt need.

There are available many works on medical ophthalmology, but they have always seemed to the reviewer not to be well adapted for direct application to internal medicine. Haab related the retinal picture and the microscopic picture in his Atlas, Gowers emphasized the neurological aspects of fundus studies, Knapp brought out general med-

ical aspects of ophthalmology, and Foster Moore laid stress on specific medical entities. Troncoso has combined all these in a system of medical ophthalmic diagnosis. He acquaints the reader with basic anatomy and physiology, and with equipment and technique before delving into the realm of detailed diagnosis. He shows how data is gathered, and outlines theories before he leads on to interpretation of findings.

To be sure, no reviewer can feel that any book is quite perfect unless he has written it himself, and so in this instance, we find that we cannot quite agree with the statement on page 113 where Troncoso begins a chapter by saying: "All defects in the visual field are the result of injuries to the nervous structures." We would rather have seen him refer to functional and organic disturbances, not only of the nervous mechanism, but also of the vascular structures and of the media as well.

In the chapter on papilledema, the reviewer would like to have seen outlined the fourteen or fifteen current theories to explain the mechanism of choked disk and a table of statistics, for instance those of Uthoff (p. 174). A selected bibliography would have been useful.

Troncoso's work is modern and thoroughly worthwhile for the bookshelves of every internist and ophthalmologist.

JOHN N. EVANS

The Physiological Basis of Medical Practice A University of Toronto Text in Applied Physiology. By Charles H. Best, M.D. & Norman B. Taylor, M.D. Octavo of 1684 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$10.00.

Knowledge of physiology is essential to proper care of patients, and this fact is kept in mind by the authors of this complete, accurate and concise treatise on the normal actions and functions of the body. This volume of nearly 1,700 pages is divided into eight sections, of seventy-three chapters. The various systems of the body are studied and presented in an instructive, attractive manner. Comment upon this work can be made only in an exhaustive article and can merely represent a superficial value of the work. This volume should be studied carefully and would require considerable time. It is a valuable addition to the literature.

HENRY M. MOSES

Physiology in Health and Disease By Carl J. Wiggers, M.D. Second edition thoroughly revised. Octavo of 1124 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$9.00.

The new edition of this text of physiology represents an extensive revision of the previ-

of a rather small book, which also includes a vocabulary of technical terms as well as an index.

Some idea of the subject material covered may be understood from chapter headings

Biological and Physiological Foundations, Nutrition and Dietetics, Hygiene of Children, Diseases of Children, Hygiene of the School, Hygiene and Education. The subject has been presented from a physiological approach, and the text is written so as to explain the illustrations, which are plain, many of them are simple diagrams. The book is well written in a popular style and is interesting. It is along the style of English books intended as an aid in preparing for examinations. It aims to clarify for the ordinary person, many of the physiological phenomena.

Medical and dental inspection of school children has been given much space, and the lighting and ventilation of school rooms has not been neglected. Sound practical advice is given as to what to do in emergencies as well as to whom to send for the physician.

The book is useful for students of the intermediate schools and is recommended for the use of teachers as a guide in the instruction of students in elementary and intermediate schools.

CHARLES T GRAHAM-ROGERS

Health Questions Answered By W W Bauer, M D. Octavo of 368 pages. Indianapolis, Bobbs-Merrill Company, 1937. Cloth, \$2.00.

The question and answer column is always of interest, whether it be in the publications for the laity or in the medical journals, and it has been a method widely employed by frauds and charlatans in the field of medicine to exploit nostrums and treatment for which the public has paid dearly both in health as well as in money.

The medical profession is now combating the charlatans, impostors and faddists, through the means of popular literature. *Health Questions Answered*, by Dr Bauer, is a book in this field, written in popular style for the laity, free from technical terms, and with no attempt to suggest treatment. Information is given as to harmful ingredients in exploited pharmaceuticals or cosmetics, as well as the danger in advertised types of treatment. The causes of many diseases are explained, and aids in banishing grave anxiety as to the outcome.

The book is well printed and contains interesting information. The questions are grouped in chapters, and there is a full

index so that it is easy to find the subject you are interested in. The book is one that the physician can recommend for the home library.

CHARLES T GRAHAM-ROGERS

A Manual of Radiological Diagnosis for Students and General Practitioners. By Ivan C C Tchaperoff, M D. Quarto of 256 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$6.00.

An x-ray manual for teaching and one of value to the student has been a long felt want. This 256 page book contains 249 excellent illustrations, mostly x-rays presented as positives. They are unusually clear, well selected and demonstrate the more important examples of bone and soft tissue pathology.

A chapter is devoted to the general discussion of diseases of bones and joints, followed by one relating to bone pathology affecting specific portions of the skeletal system. Due space is given to the more important and well established x-ray criteria in general diagnosis. The more recent advances, such as excretory urography, encephalography, myelography, uterosalpingography, placenta previa demonstration are also touched upon.

The book is designed primarily for the general practitioner who will find many key radiographs to aid him in his x-ray interpretations. It is also an excellent book for the student to readily acquaint himself with normal and pathological x-ray reproductions. For those interested in the subject as a complement to clinical medicine, it is extremely valuable and should prove of considerable assistance to those who would acquaint themselves with the specialty.

MILTON G WASCH

Aids to Pathology By Harry Campbell, M D & Kenneth Campbell, M D. Seventh edition. 16mo of 263 pages, illustrated. London, Bailliere, Tindall & Cox, 1936. (William Wood & Company, Baltimore.) Cloth, \$1.50.

The number of editions through which this book has gone speaks for its popularity. It is in most respects merely an abbreviation of standard textbooks of pathology. Accounts of different conditions are brief and for the most part accurate. However, in many instances the discussions are much too inadequate. In a discussion of blood groups, only the Jansky classification is mentioned. The chapter on tumors is only a short outline of different neoplasms and not a critical discussion of the subject matter. The same thing is true for diseases of the various tracts of the body. In many instances merely an outline of the diseases and their etiology

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CORONARY ARTERY THROMBOSIS

Mode of Death and Analysis of Fatal Cases

A M MASTER, M D, S DACK, M D and H L JAFFE, M D *New York City*
From the Pathologic and the Cardiographic Laboratories, Mount Sinai Hospital

During the past three years we have studied 300 cases of coronary artery thrombosis at the Mount Sinai Hospital. In this report we are presenting the clinical and pathological aspects of the fatal cases in this series. There were seventy-nine deaths of which fifty-six came to necropsy. From the clinical point of view we have attempted to determine the circumstances attending death and the factors leading to a fatal issue. The importance of age and sex, heart failure, shock, sudden death, and heart and respiratory rate have been evaluated. From postmortem examination, we have sought to learn whether death can occur in a first attack of coronary artery thrombosis, whether the left anterior descending artery is properly designated the "artery of thrombosis," and whether the apex is the most common site of infarct. To answer these questions we examined minutely the arteries occluded and the sites of infarction. The presence of sclerosis in the coronary arteries was correlated with arteriosclerosis generally. The size of the heart was determined. The importance of mural thrombosis in the frequency of embolic accidents soon became evident.

Age and Sex

The prognosis in coronary thrombosis was better in the younger age group the

mortality rate of patients under fifty years of age was only fifteen per cent as compared to thirty per cent in those over fifty (Table I). Sex also was an important factor; the immediate prognosis was definitely better in men than in women; the mortality rate in the latter being one and one-half times as great in all age groups.

Mode of Death

Our series comprises only cases admitted to the hospital and of these, one-half entered on the first day of the attack. We did not include cases in which death occurred immediately or soon after the onset, that is, patients who died before they could be transported to a hospital. Bedford¹ and also Decoursey² have emphasized the fact that sudden deaths are frequently caused by coronary thrombosis. It is our belief, however, that this group is an inconsiderable number among all those who die of coronary thrombosis.

The largest single cause of deaths was *severe heart failure* as we have already reported³ (Table II). One-third of our fatal cases fell into this group and in about half of these there were contributory factors, such as, diabetic acidosis, bronchopneumonia, cerebral complications, uremia, and mesenteric thrombosis. In three instances severe heart failure followed another acute occlusion. Thir-

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ous one. It consists of alterations of certain statements and the addition of much new matter whereby information is brought completely up to date. A further revision in arrangement of various topics renders it more adaptable to teaching or for a review by those who have already had a course in physiology.

As in the first edition, the author tends to stress the fundamental biophysical mechanisms of physiology rather than the chemical. Upon this basis he discusses the clinical manifestations of physiological phenomena, with the aim of producing not only a textbook for students but also a reference medium for graduates. In general, it may be said that the new edition represents a distinct improvement, presenting subject matter for those interested in *human physiology*.

G B RAY

Operative Surgery By J Shelton Horsley, M D and Isaac A Bigger, M D. Fourth edition, volumes 1 and 2. Quarto, of 1387 pages, illustrated. St Louis, C V Mosby Company, 1937. Cloth, \$15.00.

In this fourth edition Doctor Horsley has secured the assistance of Doctor Bigger as co-author and has expanded his *Operative Surgery* to a two volume work of 1387 pages. Miss Helen Lorraine has added 500 beautiful new illustrations.

There is a section on *Neurological Surgery* by Dr C C Coleman, a section on *Urology* by Dr A I Dodson, a section on *Orthopedic Surgery* by Dr Donald M Faulkner, and a section on *Plastic Surgery* by Dr John S Horsley, Jr, all of whom are associated with Dr Bigger at the Medical College of Virginia. Dr Guy S Horsley has also contributed to the chapter on *Proctology*.

The subjects have been handled with such uniform excellence that it is difficult to pick out any one for special comment. There are 76 chapters, each interesting and instructive. The chapters on *Plastic Surgery*, *Flaps and Grafts* by John S Horsley, Jr might be mentioned in more detail. They are clearly and concisely written and profusely illustrated by photographs and drawings. The 79 pages devoted to these subjects are exceedingly practical.

Dr Bigger has a lucid style that is easy to follow. Among other subjects he carefully covers the modern surgery of the lungs, esophagus and heart. The reviewer is pleased to see that Beck's operation for the development of a collateral blood supply to the heart is described.

The reviewer is frankly enthusiastic about this *Operative Surgery*. Every medical student and practicing surgeon should study it.

HENRY F GRAHAM

Surgical Pathology of the Thyroid Gland. By Arthur E Hertzler, M D. Octavo of 298 pages, illustrated. Philadelphia, J B Lippincott Company, 1936. Cloth, \$5.00.

This book is a complete account of pathological changes observed in various forms of thyroid disorders. The reported observations are based upon a large experience in the clinical study of patients with goiter before operation, and in a detailed study of the tissue removed at operation, both by gross and microscopic examination. A careful follow-up has indicated the ultimate results.

The book is abundantly illustrated with photographs of patients with various types of goiter, and with a high degree of photography applied to gross specimens and to microscopic sections. The author, in an attempt to correlate the clinical story with the pathological findings, has kept in mind that goiter is a long story, and the eventual pathological changes may be indicative of symptoms long past. He is an advocate of radical surgery for the diseased gland and apparently has little fear of postoperative hypothyroidism and myxedema. He stresses the fact that the value of the basal metabolic rate in estimating the toxicity of a given case has been grossly overestimated.

If one does not agree with all his conclusions, he can take little exception to the detailed observations and the clinical facts which the author has so carefully compiled. The book is recommended to all students of thyroid disorders, pathologists, medical clinicians, and particularly the thyroid surgeon.

EMIL GOETSCH

Cataract. Its Preventive and Medical Treatment, for Specialists, General Practitioners and Students. By A Edward Davis, M D. Octavo of 161 pages. Philadelphia, F A Davis Company, 1937. Cloth, \$3.00.

This work reviews certain of the theories as to the cause of cataract, the development of cataract, and the pathology of cataract. It supplies, for this reason, a convenient means for anyone not unfamiliar with cataract studies during the past few decades. The reviewer was unable to discover new data. Methods used in the study of cases did not seem to be as complete as those used, for instance, by Dr Kirby, in his elaborate studies. Dr Davis rates the slit lamp study as of rather secondary value compared to other means.

This little volume is certainly worthwhile from a philosophical point of view, but to the reviewer, draws conclusions from inadequate material. It must be realized that many able men feel that medical measures are justified, but, without doubt, it is very difficult to present acceptable material to support the idea that medical treatment can either cure or retard senile cataract.

JOHN N EVANS

TABLE I—AGE AND SEX IN CORONARY THROMBOSIS—INCIDENCE AND MORTALITY RATE

	Male	Female	Total
Below 50 Years	73	14	87
Incidence	31%	21%	29%
Mortality	13 5%	21 5%	15%
50-69 Years	145	40	185
Incidence	61%	63 5%	61 5%
Mortality	28%	40%	31%
70 Years and Over	19	9	28
Incidence	8%	14 5%	9 5%
Mortality	26 5%	44 5%	32%
Total	237	63	300
Mortality	23 5%	36 5%	26 3%

TABLE II—MODE OF DEATH IN 79 CORONARY THROMBOSES

Severe Heart Failure	20
Heart Failure Plus Shock	13
Severe Shock	7
Embolism	15
Sudden Death	9
Pneumonia	3
Miscellaneous	6
(Diabetic Acidosis Uremia Ruptured Gall Bladder Etc)	

ing artery should no longer be designated the "artery of thrombosis." Often several arteries were occluded simultaneously, a point emphasized by Saphir et al,⁴ and Sprague and Organ.¹⁰ Almost forty per cent of acute and eighty per cent of old thromboses involved more than one artery.

In thirteen hearts with only a single acute or old thrombosis it was possible to determine the *site of initial thrombosis*. In these, the left anterior descending artery was first thrombosed in six instances, the right coronary in four, and the left circumflex in three, but the posterior wall was infarcted more often than the anterior. We wish to emphasize once more that in only five of forty-two cases was a single thrombosis found at postmortem and that in each case exitus followed a complication usually attributable, however, to the thrombosis.

Coronary thrombosis produces infarction of the *left ventricle* regardless of the artery involved (Table V). As we have already shown^{8, 6} and as others have intimated,^{9, 11} the posterior basal surface is the one most often infarcted and somewhat less frequently, the anterior apical wall or a combination of anterior and posterior walls. The septum alone was infarcted six times but in half the cases infarction of the anterior or posterior wall of the left ventricle was associated with infarction of the adjacent portion of

the septum. The right ventricle was occasionally the site of infarction but only when there was infarction of the left ventricle or septum. There was no instance of isolated right ventricular infarction.

A not uncommon sequela of myocardial infarction was *aneurysm formation*.⁷ It was present in ten cases, eight times on the anterior surface of the left ventricle (thrombosis of left anterior descending artery) and twice on the posterior surface. It was usually found in severely sick patients with hypertension and heart failure.

Cardiac hypertrophy was found in thirty-eight of forty-nine hearts weighed. Our criterion of hypertrophy was a weight of 400 gms or more. A large heart was found in patients with previous hypertension, multiple thromboses, and heart failure.

In the fifty-six patients examined postmortem, eight presented no or only minimal *arteriosclerosis* in the aorta and its branches. The average age of this group

TABLE III—TIME OF DEATH IN 79 CASES CORONARY THROMBOSES

Week	1	2	3	4-6	7-10
Deaths	31	23	9	9	7
Shock	6	1			
Heart Failure	12	9	3	1	1
Heart Failure, Shock	5	3	1	2	2
Pul Emb	2	3	1	2	1
Cerebral Emb		1	2	1	1
Sudden	4	1	2	1	1
Another Occlusion			1	1	1

TABLE IV—INVOLVEMENT CORONARY ARTERIES IN 42 CORONARY THROMBOSES—LOCATION OF ALL OCCLUSIONS

	Lat	L Circ	Rt Cor	Total
Acute Thrombosis	26(40%)	13(20%)	26(40%)	65
Old Occlusion	34(40%)	21(25%)	30(35%)	85
Total	60(40%)	34(23%)	56(37%)	150

TABLE V—LOCATION OF ACUTE INFARCTION IN 56 CORONARY THROMBOSES

Ant. Apical Wall	10	Left Lat	2		
Post. Basal	20	Septum Alone	6		
Ant Post	18				
	Ant	Post	Ant Post Lat Total		
Left Vent	11 (2 Lat)	20 (3 Lat)	17	2	50
Right Vent	3	9	1		13
Septum	10	13	9		32
Adjacent L Vent	(7)	(13)	(6)		(26)

teen patients died with a combination of *severe heart failure* and *shock*. *Severe shock alone* accounted for only seven deaths. Fifteen deaths were due to *embolism* and included nine instances of pulmonary infarction, five of cerebral embolus, and one of mesenteric and renal embolus. A fifth group was of particular interest. In this there were nine cases of *sudden death*, that is, unexpected fatalities in patients who were progressing satisfactorily or whose condition was not severe enough to anticipate exitus at the time. The causes of sudden death were another acute thrombosis in three instances, pulmonary embolism in two, and cerebral accident, rupture of heart and status anginosus in one case each. One death was unexplained. Finally, a few deaths occurred from *extracardiac conditions*, such as bronchopneumonia, diabetic acidosis, uremia, and ruptured gall-bladder. It must be remembered that in this grouping of the cases under specific causes of death, we have attempted to single out the chief factor, although frequently several played a role.

The majority of deaths occurred between the third and fourteenth day following the attack (Table III). One-third took place between the third and tenth week and only one-sixth within the first two days. These facts hold true for all the causes of death enumerated above, except for shock which usually led to death in the first three days. Even sudden death may occur at any time during the hospital stay.

Although *heart failure* was the direct cause of death in one-third of the patients it was present in ninety per cent of the fatal cases. It appeared in but sixty-four per cent of the nonfatal cases. We may conclude then that its presence indicates a poor prognosis. The failure was usually advanced, consisting of combined left and right ventricular failure and was of equal frequency and severity in left and right coronary thrombosis and in anterior or posterior infarction.

Similarly, *shock* was present in eighty-two per cent of the fatal cases and was usually associated with varying degrees of heart failure. It occurred in only one-third of the nonfatal cases.

Two very simple clinical observations, *heart rate* and *respiratory rate*, proved of

great prognostic value.³ Thus, when the heart rate rose to 120 or more, the mortality was fifty per cent. On the other hand, only five per cent of patients with a rate between sixty and one hundred died. Similarly, when the respiratory rate was thirty or more per minute, the mortality rate was forty per cent but when the rate was twenty or less, only one patient died.

Analysis of Postmortem Material

Location of Thrombosis and Infarction

We have found, as did Saphir and his associates,⁴ that in pathological examination it is essential to scrutinize the coronary arteries by making frequent cross sections in their entire course if old thromboses are to be unearthed. In our series, forty-two of the fifty-six postmortem examinations were rechecked in this way and the effort was well repaid (Tables IV and V). Only five cases were finally proved to have died with *one thrombosis*, a finding that emphasizes the rarity of death in a first attack. Moritz and Beck⁵ and the present authors⁶ have already brought out this point. Indeed, the frequency of old occlusions was remarkable, many cases having three or four. One hundred and fifty occlusions both old and recent were found in our forty-two cases (Table IV). Many old occlusions discovered at postmortem had not been suspected during life. In fact, half the cases with a history of but one clinical attack presented at least one old thrombosis.

For many years the anterior descending branch of the left coronary artery has been considered the one most frequently involved in coronary artery thrombosis⁷ and consequently, the anterior surface of the left ventricle the common site of infarction. In forty-six fatal cases reported by Levine⁸ the left anterior descending was occluded thirty-nine times and the right coronary artery only twice. However, in our series the right coronary artery was occluded both by recent and old thrombi with equal frequency as the left anterior descending artery, and infarction of the posterior basal surface was definitely more common than that of the anterior wall. We agree with Barnes and Ball⁹ that the left anterior descend-

with the secondary rupture linear in type. In the other, both were jagged linear marks. In these three cases there seems to be an infiltration in the wall causing a swelling and these ruptures take place in this area, with resultant hemopericardium and death within ten minutes.

If we consider this percentage as holding elsewhere, at least six per cent of coronary thrombosis that survive the preliminary shock must rupture.

In one case of an old insane patient, the pneumonia antedated the coronary occlusion.

The cases in this series varied from thirty-one to ninety-one in age, and several followed surgical injuries such as a broken leg.

I am wondering if the reason why so much of our thromboses take place in the left descending branch is because of the opening into the Thebesian circulation which is near that spot. In one of our cases we found an opening there, communicating between the occluded coronary and the ventricle.

I would also like to call attention to the fact that in many of our cases the mural thrombosis inside the heart is larger than the involvement outside, or on the pericardial surface. Is it possible that nature ordinarily splints inside and does this account for the absence of pericardial rub in most of the cases? I remember a number of years ago seeing a couple of hearts in Thorndyke Laboratory in Boston that seemed to show a definite communication between the coronaries and what would now be considered as part of the Thebesian circulation. Is it possible that occlusions in this territory lead to an infiltration within the wall and hence permit rupture? And do we have three ways of repair, depending on whether the infiltration is placed on the pericardium, on the epicardium, or within the wall itself?

In only three of our cases was syphilis present, and I am unable to evaluate its importance as a causative factor, except to notice that these cases tended to be a little younger than the average.

A WOMAN TRIES TO TEACH THE DOCTORS

Helen Rowland, who writes a syndicated column entitled "The Marry-Go-Round," may not know much about medicine, but she apparently knows something about women. The advice which she offered recently about "What A Doctor Should Know" is passed on by *The Ohio State Medical Journal* for the benefit of the medical neophytes, at the same time warning them not to take too seriously Helen's impression that every physician has pockets filled with currency and drives twelve-cylinder limousines.

To quote from her column as it appeared in *The Ohio State Journal*:

The time has passed when all that a doctor had to know was medicine.

The most successful doctors, today, are those who know most about psychology—particularly the psychology of women. Because the average man never goes to see a doctor until he is practically dying, or at least until he is actually in pain. It is poor, weak, "suffering" women who fill the doctor's pockets and pay for his limousines and golf sticks.

The young physician who wants to be popular and have Persian rugs on his office floor should know that the most effective modern "bedside manner" is a bright, cheerful, flattering smile, followed by a look of deep concern and a head shake after taking the pulse beat. Every woman is bent on having high blood pressure now and then.

He should know almost without taking her temperature or looking into the whites of her

eyes, whether a woman needs a sedative, a stimulant, an operation, or only a little sympathy and personal attention.

He should know how to listen until a woman has gotten her last symptom out of her system, and how to "advise" her to go somewhere she's been dying to go—whether it's the Riviera, Honolulu or just Saratoga Springs during the races.

He should know at a glance whether she has a genuine attack of cardiac trouble—or only a case of acute hysteria because her husband is having blonde-trouble or her boy friend is slow in coming across with the "wilt thou" and the solitaire. Some men can keep a girl waiting until she becomes positively jittery!

He should learn early how to remove a woman's inferiority complex and revive her crushed vanity and how to "set" her fractured heart so that it will knit quickly and soon be in working condition.

Above all, he should be aware that a woman must emote now and then or something will snap inside of her! And on such occasions he should know when to soothe her, when to scold her, when to jolly her when to bully her and when to take her seriously—even though he may long to rush out and slam the door behind him!

Of course, a little knowledge of medicine is necessary even to a young and good-looking medico—but it is merely incidental. The diagnosis is the big thing! And if a young and struggling doctor wants to see his office packed with "suffering" women, he should mix at least nine parts psychology with one part materia medica.

was only forty-five years. Hence, it would appear that arteriosclerosis may occur in the coronary arteries before involving vessels elsewhere.

As we have seen, *embolic phenomena* in coronary artery thrombosis are common and usually arise from mural thrombi which follow myocardial infarction. The incidence of mural thrombosis has been reported⁷ as more than fifty per cent. In our series it was present in thirty per cent, occurring most frequently in the left ventricle, less often in the right auricle and ventricle. *Pulmonary embolism and infarction* occurred eleven times. In five instances this was associated with thrombi in the right auricle or ventricle, in the remaining six, the source was peripheral venous thrombosis in four, and heart failure in two. It is possible, even when mural thrombosis is present, that the source of the pulmonary infarction is peripheral. Emboli to the brain, kidney, spleen, and intestines were less common than to the lungs.

It has long been observed⁸ that the *lungs* are frequently affected in coronary artery thrombosis. In only seven per cent of the cases were they uninvolved at postmortem examination. The usual findings were congestion (85%), pulmonary edema (53%), hydrothorax (39%), bronchopneumonia (28%), and finally pulmonary infarction (20%). In most instances these complications had also been observed clinically.

Summary

The mortality rate in coronary thrombosis increased with age and was higher in women than in men.

Discussion

DR CARL S. BENSON, *Binghamton*—First, let me pay tribute to the sterling work that has been done under Drs. Master, Jaffe, and Dack. Any report which they put forth is always based on careful study and can be accepted as authoritative. Then let me pay tribute to my friend and teacher, Dr. Clayton Greene, to whom I owe my interest in cardiology, and who inspired me in my work on this subject.

These men are giving the experiences of the large medical centers—New York and Buffalo—while I can speak for the moderate size territory such as our Triple Cities. Dr. Hugh Gregory, Dr. Jack Love, and Dr.

The chief causes of death were severe heart failure, heart failure with shock, severe shock alone, embolism, "sudden death," and bronchopneumonia.

Death from all types of lesions occurred most frequently between the third and fourteenth days.

Death in a first attack was rare. There were usually multiple old occlusions.

The right coronary artery was as frequently occluded as the left anterior descending and the posterior surface of the left ventricle as frequently infarcted as the anterior surface.

Cardiac hypertrophy was almost universal.

Arteriosclerosis may be limited to the coronary arteries in the younger age groups.

Mural thrombosis was common and often resulted in embolic accidents. The lungs were practically always involved.

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References

- 1 Bedford, J. *Path. & Bact.*, 36:333, 1933.
- 2 Decoursey, E. *J. Lab. & Clin. Med.*, 19:1272, 1934.
- 3 Master, A. M., Dack, S., and Jaffe, H. L. *Am. Heart J.*, 13:330, 1937.
- 4 Saphir, O., Priest, W. S., Hamburger, W. W., and Katz, L. N. *Ibid.*, 10:567, 1935.
- 5 Moritz and Beck. *Ibid.*, 10:874, 1935.
- 6 Master, A. M., Jaffe, H. L., and Dack, S. *Ibid.*, 12:549, 1936.
- 7 Applebaum, E., and Nicolson, C. H. B. *Ibid.*, 10:662, 1935.
- 8 Levine, S. A. *Medicine*, 8:245, 1929.
- 9 Barnes, A. R., and Ball, R. G. *Am. J. M. Sc.*, 183:215, 1932.
- 10 Sprague, H. B., and Organ, E. S. *New England J. Med.*, 212:903, 1935.
- 11 Whitten, M. B. *Arch. Int. Med.*, 45:383, 1930.

We wish to thank Miss Ethel deHaen and Miss Ruth Oppenheimer for their assistance in collecting the data for this paper.

Victor Bergstrom, our pathologists, have been most kind in letting me use all their cases and have followed them with me.

We have seen most of the conditions mentioned by the New York group, and in going over seventy-two autopsy cases of coronary thrombosis, I have been struck with the fact that five of our cases have ruptured. In the last three of these cases the rupture has been not at the apex, but up in the side of the left ventricle. It has not been single but there has been a secondary smaller rupture from one to two cm from the main rupture. Two of the main ruptures have been about two mm across and almost round.

multiple small and large ulcerations, which tend at times to become grouped, necrotic, and enlarged to form phagedenic ulcers. Their edges are usually well-defined, slightly undermined, and bleed readily from the soft necrotic base. Fuchs,² Solomon,³ and Thalman⁴ were able to demonstrate the gonococcus in these ulcers. Gougerot et al⁵ called special attention to the differential diagnosis of these ulcers, for very often confusion may exist and they may be mistaken for chancroids or chancres. Furthermore, even the local lymphatic glands may be involved. Mirabeau⁶ and Von Vajsen⁷ observed cases with involvement of the local lymph chain, enlarged glands, and abscess formation from which the organism was recovered.

Very common local autoinoculable and contagious lesions occurring in association with the discharge, are the condylomata acuminata. The favorite site for these is in the genital region, particularly on the moist intertriginous areas of the perineum, inguinal regions, and anus. They form as a rule, small filiform, papillary growths and larger fig-sized cock's-comb-like elevations, covered with an offensive purulent secretion. At times, these lesions may be confused with condylomata lata, manifestations of secondary syphilis. The treatment of these lesions is at times troublesome, and destruction by means of electrodesiccation, surgery or radiotherapy, may be necessary before they are eradicated.

From the local sites the gonococci may enter the blood stream to be transported to the skin where they produce generalized exanthemata. The generalized skin eruptions of gonorrheal infection are of serious import. They usually occur in patients who are septic and bedridden. Accompanying the cutaneous eruptions, there are usually symptoms simulating those of typhoid fever, such as malaise, headache, high temperature, chills, profuse sweating, general aches, a palpable spleen, and at times, pinkish macules of the abdominal skin. The general clinical picture may also suggest infectious endocarditis, as occurred in one of our cases. However, the most frequent systemic accompaniment is gonorrheal arthritis.

The first mention of generalized skin lesions in gonorrhea must be credited to

Selle.⁸ In his textbook, "Medicina Clinica," published in 1793, there is this passage: "I know it from my own experience that the pus from the gonorrheal-infected urethra is sucked into the body and may cause arthritic pains in the body and skin lesions." Unfortunately, he failed to give us a description of these skin lesions.

Buschke⁹ classified these lesions and thereby clarified their etiologic relationship. In 1880, Finger¹⁰ called attention to three cases of purpura rheumatica complicating gonorrheal urethritis. His cases showed purpuric lesions on and around the swollen, painful, inflamed joints. In 1893, Vidal¹¹ described a hyperkeratotic exanthematous form of skin eruption observed in gonococcal infections.

Arning and Meyer Delius¹² found only six cases of hyperkeratosis and 147 cases of arthritis among 4,300 gonorrheal cases. Of 550 females with gonorrhea, twelve complained of arthritis and none of skin exanthemata. Of fifty-two cases with hyperkeratosis, Buschke and Langler¹³ found only three in females, two of which were in small girls. For an unknown reason, females with gonorrheal infection are more immune to generalized skin involvement than are males.

Buschke's classification of the exanthematous skin eruptions in gonorrhea has been generally accepted and has helped a great deal to clarify this subject. He divided the skin lesions into four groups:

- 1 Erythematous eruptions, with or without vesicle formation

- 2 Urticarial erythema and erythema nodosum-like lesions

- 3 Hemorrhagic lesions, with or without bullous formations

- 4 The hyperkeratotic lesions

There may also occur in addition to these groups of lesions, a papulovesicular type, another of herpetiform nature and finally, pustular lesions.

The diagnosis of a specific gonorrheal erythema or urticaria offers great difficulties. This is especially true in the differential diagnosis when drugs have been used in the treatment of the urethritis. Many of the drugs given during the illness may cause an erythematous, scarlatiniform or morbilliform eruption.

CUTANEOUS ERUPTIONS IN GONORRHEA

OSCAR L. LEVIN, M D and SEYMOUR H. SILVERS, M D, *New York City*

Today, the subject of gonorrhea is of even more paramount interest than ever before, because of the strenuous campaign being waged by the professional and lay health authorities, in the attempt to stamp out venereal infections.

It was recognized centuries ago as a serious disease, and in the old testament there are references to the loathsome condition that may result from sexual intercourse. In the 15th Chapter of Leviticus, there are detailed descriptions of its clinical manifestations, and hygienic management, as well as of measures to be observed in the after care.

Although it was recognized as being an infectious condition, it was not until 1879 that Neisser isolated the gonococcus as the specific, causative micro-organism. Bumm (1885) demonstrated its infective virulence by inoculating man with a pure culture that he had succeeded in growing upon coagulated human serum.

In the various papers that have previously appeared and are still appearing, the fact that the germ produces the inflammation in the genital organs is emphasized, but little attention is called to the fact that the gonococcus is often the cause of systemic disease. The gonococcal infections of the skin are not common when compared with the wide prevalence of the condition in the genital organs, or with its occurrence in other tissues, notably the joints. However, as stressed in this paper, there are frequently manifestations of the infection in the skin itself, that may vary from relatively minor importance to grave and even fatal termination.

Although of low viability and of little resistance to outside influences, the gonococcus may lie dormant within the body for years, and may at any time produce local and metastatic inflammatory reactions.

It has been estimated that from five to ninety-five per cent of adult males suffer or have suffered from gonorrhea. Although it is more difficult to determine

the prevalence of the infection among adult females, yet it may be conservatively stated that five per cent of them are or have been infected. About three per cent of gonorrheal patients are known to develop arthritis, and probably a slightly higher percentage would include all the cases of systemic gonorrhea. No survey of the incidence of cutaneous manifestations has been reported.

The micro-organism may be present in the blood stream, and transmitted by means of the circulation in a manner similar to that which occurs in gonorrheal arthritis, to produce the generalized metastatic cutaneous lesions. It has also been suggested that some of the manifestations may be due to the liberation of a gonococcal toxin.

It is, therefore, evident that the cutaneous lesions observed in gonorrheal infections deserve special attention. They may be at times of little prognostic importance, but at others, they may suggest an ominous issue.

Two types of lesions are described.

First, the localized forms, in which single or multiple lesions occur, usually near the site of the infection, and resulting from the direct infection of the skin by the gonococci or by the irritating discharge. These are usually confined almost exclusively to the sites on and about the genitalia.

Second, there are generalized or exanthematous forms which result from systemic dissemination of the micro-organisms and their toxins to produce metastatic lesions.

The local lesions are readily recognized, and a proper diagnosis is made with little difficulty. The most commonly recognized clinical forms of localized cutaneous gonorrhea are folliculitis and abscess formations on the genitalia and lower regions of the abdomen and thighs, resulting from inoculation of the skin by the urethral discharge. Jesioneck,¹ in 1903, was able to isolate the organism from these lesions, and describe their clinical and causal relationship. Less common is the formation of single and

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multiple small and large ulcerations, which tend at times to become grouped, necrotic, and enlarged to form phagedenic ulcers. Their edges are usually well-defined, slightly undermined, and bleed readily from the soft necrotic base. Fuchs,² Solomon,³ and Thalman⁴ were able to demonstrate the gonococcus in these ulcers. Gougerot et al⁵ called special attention to the differential diagnosis of these ulcers, for very often confusion may exist and they may be mistaken for chancroids or chancres. Furthermore, even the local lymphatic glands may be involved. Mirabeau⁶ and Von Vajsen⁷ observed cases with involvement of the local lymph chain, enlarged glands, and abscess formation from which the organism was recovered.

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One would hesitate to make a positive diagnosis unless there are such positive evidences as those reported by Dorner,¹⁴ who isolated the organism from the blood in a case of gonorrheal sepsis with a roseola. Similar difficulties are also encountered in the identification of urticaria during a specific infection. Erythema nodosum-like lesions were reported by Herman,¹⁵ and purpura was described by Chevallier et al.¹⁶ Hemorrhagic and bullous eruptions were also described by Welander¹⁷ and Siegel.¹⁸ Welander reported the occurrence of bullous and hemorrhagic lesions, together with a positive blood culture. In his case a new crop of papules, vesicles, bullae, and hemorrhages, appeared with each rise in temperature. Siegel¹⁸ reported the case of a four day old child of infected parents, who showed bullous, hemorrhagic lesions and large erosions. He was able to isolate the gonococcus from the unruptured lesions. Lieber¹⁹ also described similar lesions in newborn infants.

Probably the most common of the generalized skin eruptions encountered in gonorrhea is the hyperkeratotic form. Vidal¹¹ first described it as a complication of gonorrhea, and later, Buschke⁹ gave a comprehensive review of the subject. The keratotic lesions usually appear together with arthritic complications. They appear, disappear, and recur, depending upon the intensity of the specific arthritis. The usual areas of predilection are the extremities especially about the joints. The keratotic eruption may appear as round or oval-shaped, heaped-up lesions, varying from pea to palm or even larger in size and showing a tendency to become confluent. The color of the lesions may be gray, yellow, or copper. The heaped-up conical character of the lesions suggests a crust overlying a purulent base, but as a rule, when it is removed a fairly dry floor with some debris is found. The nails of the hands and feet are invariably involved. They are dry, brittle, and heaped-up both distally and laterally by a subungual keratosis. The entire nail, finger, or toe may be covered by the characteristic crust. Not infrequently, the scrotal and penile areas may show the typical lesions.

Histologically, the epidermis shows the most characteristic changes. There is

marked hyperkeratosis and parakeratosis, with absence of the granular layer. In the corium, the following changes may be observed: widening of the papillary bodies, a cell infiltration consisting mainly of mononuclear leukocytes, fibroblasts and plasma cells and occasionally large numbers of polymorphonuclear leukocytes, dilation of the blood vessels, but no change in the elastic tissue. Intraepithelial abscesses are found containing debris, epithelial cells, and some polymorphonuclear cells.

The keratotic elements of the lesions rarely disclose the presence of the organism in culture or stained specimens, but more often, as demonstrated by Dainow²⁰ and others, the gonococci may be found in the intraepithelial vesicles. In Gager's²¹ case of keratoderma, the lesions began with vesicles and pustules and finally evolved the typical keratoses. Extracellular gram negative diplococci were demonstrated in the pus from lesions and urethra. Wadsok²² reported finding gonococci in the tissue from a papule in a case of keratoderma blenorrhagica. DuBois²³ also was able to isolate the specific germ from skin lesions.

The specificity of these lesions has been questioned by some writers. Lohe and Rosenfeld,²⁴ and Lojander²⁵ observed lesions, many of them resembling those of keratoderma blenorrhagica in cases without evidence of gonorrhea. Rostenberg and Silver²⁶ also questioned the specificity of the lesion.

Case Reports

We are reporting four cases with gonorrheal skin lesions observed in the wards of the medical services of general hospitals.

CASE 1 B. T., white, female, single, aged twenty, was admitted to the Medical Service of Dr. Rappaport of the Wyckoff Heights Hospital on November 16, 1936, complaining of fever and pain in the right foot and the lower quadrants of the abdomen. She admitted venereal exposure and gave a history of frequency of urination and nocturia. The past history was irrelevant, except for the fact that she had been treated for a mitral stenosis in another hospital.

The patient was extremely pale and acutely ill, with flaring of the alae nasi and moderate dyspnea. The abdomen was soft,

and no masses were felt. There was a slight swelling of the right foot, with moderate tenderness over the dorsum. A blowing diastolic murmur was heard over the precordium and a systolic murmur over the apex. The second pulmonic sound was accented. The Bartholin glands were swollen and the vaginal walls were edematous. There was no vaginal discharge. Digital manipulation of the cervix uteri caused pain but no adnexal disease could be discovered.

Laboratory examinations. On admission, the hemoglobin was 36.5 per cent and the red blood cell count was 1,440,000. Following a transfusion the hemoglobin was raised to fifty-two per cent Sahli, and the red blood cell count to 2,390,000. The white blood cell count varied from 13,200 to 15,400, and the differential blood cell count showed eighty-five to eighty-eight per cent polymorphonuclear cells. Smears taken from the cervix were repeatedly negative for gonococci. The complement-fixation test was four plus. Blood cultures on five occasions were negative. The urine showed a two plus albumin reaction and contained red blood cells.

Course. During her stay in the hospital, she ran a high temperature that was spiking in nature, rising as high as 106°F. The pulse rate was 100 to 140 per minute and the respiration rate fifteen to thirty-six per minute. On December 7, an x-ray revealed areas of bronchopneumonia involving the lower half of both lungs. On December 8, there appeared a generalized but sparse eruption of pin-head to lentil seed-sized bluish and violet-red, round macules, with slightly depressed centers. Most of the lesions were on the extremities, and there was one on the left conjunctiva. The patient died on December 9.

Postmortem finding. A smear from the ventricular side of the mitral valve examined with a Gram stain showed the presence of many intracellular and extracellular Gram negative diplococci. The spleen contained a large, fluctuating yellow area filled with fluid. The anatomical diagnosis was acute vegetative gonorrheal endocarditis, infection of the spleen, and bilateral bronchopneumonia.

CASE 2 G. S., white, female, married, aged twenty-six, was admitted on October 20, 1936, to the Medical Service of Dr. A. A. Epstein, at Beth Israel Hospital, complaining of precordial discomfort and palpitation of five days' duration. Three days before admission, she noticed four small "blisters" on the hands. At the same time, dyspnea and orthopnea set in. One day be-

fore admission, she noticed a pain in the shoulder which became worse with motion. After her admission to the hospital, pain also appeared in both wrists. The joints, however, had not been swollen and there was no history of rheumatic fever.

Physical examination revealed an acutely ill patient. There was marked pulsation in the neck and a thrill was palpable over the mitral area. There was evidence of mitral stenosis and insufficiency, and aortic insufficiency. The tip of the spleen was barely palpable. The liver was not palpable. There was no ascites. A vaginal examination revealed no discharge and no abnormalities. There was tenderness and pain on moving the left shoulder, the left elbow, and over the left metacarpal bones.

Cutaneous examination. The skin of the patient was examined one day after admission to the hospital, and on that day showed an eruption that was disseminated and most marked on the extremities. The eruption consisted of about one dozen sharply circumscribed, small hemorrhagic lesions up to the size of a small pea. These were purplish-red in color, maculopapular, and hemorrhagic. The older lesions were elevated and formed vesicles containing blood. The centers were slightly depressed, and showed a tendency to crusting. Lesions which appeared subsequently tended to involve the backs of the hands, the fingers, and the regions of the elbows. When first observed, the diagnosis was that of a septic purpura, and a note was made that such lesions had been previously observed in gonococcal septicemia, and also in meningococcal septicemia (Fig. 1). Subsequently lesions also appeared on the soles of the feet.

Laboratory findings. The x-ray examination of the chest revealed a slight, generalized enlargement of the heart, with accentuation of the auricular curve. The electrocardiographic examination revealed a P-R interval of 120 with changes suggesting myocardial involvement. There was a moderate congestion of both lungs, with acinous and exudative changes at the roots extending into the infraclavicular areas. There was thickening of the interlobar pleura between the right upper and middle lobes. X-ray examinations showed no involvement of the bones or joints. Frequent urine examinations showed the presence of occasional faint traces of albumin. Blood cultures examined were repeatedly negative for gonococci. The gonococcus complement fixation test was four plus and the Wassermann test was negative. An exam-

ination of the smear from the cervix showed the presence of gonococci.

Course While in the hospital, the patient showed gradual subsidence of the general symptoms including the disappearance of the painful joints and absorption of the lesions under hyperthermia treatment. Repeated examinations of smears from the urethra and cervix later showed the absence of gonococci. A bronchitis which had developed, gradually subsided, and her general condition improved. However, she



Fig 1 Characteristic hemorrhagic vesicle of palm in case 2, gonorrheal septicemia. Similar lesions occur in meningococcal septicemia.

was again re-admitted to the hospital on December 13, and again on January 1, 1937, with a diagnosis of bronchopneumonia and cardiac complications. No skin lesions appeared during these periods.

CASE 3 J. D., male, aged twenty-three, single, born in the United States, was admitted August 26, 1933 to the Mount Sinai Hospital Medical Service of Dr. B. S. Oppenheimer. On admission, he complained of fever, pain, and swelling of the dorsa of both feet, of five days' duration. For four weeks prior to admission, he had migrating pains in the extremities, and for months, he had a gonorrheal urethritis, which was supposed to have been "cured" three weeks before admission.

The patient was acutely ill. His heart was not enlarged but auscultation revealed

a systolic murmur at the apex. The genitals were normal. Gentle prostatic massage did not produce any secretion. Both feet were swollen and warm to the touch. They were tender and painful on motion. The skin showed scattered erythematous areas on the left wrist, left shoulder, neck and chest. On the day following admission to the hospital, the skin lesions became more numerous, and in several places, assumed a hemorrhagic vesicular or pustular character. The left conjunctiva showed a small hemorrhagic lesion. During the following days, the swelling on the dorsa of the feet became fluctuating. The blood pressure was 126 systolic, and 80 diastolic. The temperature was 104.2°F.

Laboratory examination The white blood cell count was 30,000 and the differential leukocyte count showed eighty-six per cent polynuclear. The sedimentation rate was thirty-six minutes. The hemoglobin was eighty-six per cent. The urine was negative. Fluid obtained by aspiration of the joints revealed smears and cultures that were negative for gonococci. Similarly, smears and cultures from the hemorrhagic vesiculopustular lesions on the skin were negative. A blood culture for gonococci was positive after five days' incubation. The gonorrhea complement fixation test was four plus.

Course During his stay in the hospital, the patient received six injections of typhoid vaccine, beginning with ten million and rapidly increased to two hundred million. Under this form of treatment and additional symptomatic medication, the patient gradually improved and was discharged on September 20.

CASE 4 J. O., white, male, aged twenty-seven, born in the United States, was seen in consultation with Dr. J. F. Connell for the diagnosis of a skin eruption. The history indicated that the patient had been treated for a gonorrheal urethritis for two months. One week prior to the consultation, the ankles became swollen and the patient complained of general malaise and weakness. A generalized eruption appeared, and gradually all the joints became stiff and motion became painful. The past history was irrelevant. The patient had lost about thirty pounds since the onset of the illness.

The patient was very emaciated, and unable to move in bed because of weakness. The temperature was 100°F. The pulse rate varied from eighty to one hundred per minute, and respiration rate was twenty. The heart, lungs, and abdomen were normal. The joints of the knees, wrists,

ankles, elbows, fingers, and toes were moderately swollen and painful on motion

Cutaneous examination The skin was dry and showed a generalized eruption of crusted papules and plaques which were most marked on and about the joints. Some of the individual papules were pinhead in size, most intensely red at the base and paling toward the somewhat pointed top. Other lesions consisted of larger papules, forming confluent plaques covered with heaped-up crusts, resembling layer cakes. The uppermost layers of the crusts were grayish and brownish-red in color and easily detached leaving dry surfaces. The nails were colorless, thickened, and undermined by crusts and papules, which were abundant along the nail folds.

Laboratory findings The urine showed one plus albumin, but was otherwise negative. The red blood cell count was 3,500,000, and the white blood cell count 8,200. The blood smears showed seventy-seven per cent polynuclear cells, three per cent eosinophiles, and twenty per cent small lymphocytes. The hemoglobin was sixty per cent, Sahli method. The blood culture was negative. The Wassermann test was negative. The diagnoses were keratoderma blenorrhagica and arthritis of gonorrheal origin (Fig 2)

Discussion and Comment

The interesting, but infrequent gonorrheal complications of the skin discussed in this paper, have stimulated comment from numerous observers. The types of skin lesions that have been described, may be classified into two main groups (1) The localized forms that occur usually in the neighborhood of the primary focus of infection and result from direct infection of the skin by the gonococci, or as a result of irritation by the secretions, and secondary infections by alien bacteria, (2) the generalized forms, probably metastatic, and caused by the transport of the gonococci by the blood stream to the skin where eruptions result from the action of the micro-organisms and their toxins.

The localized skin complications of gonorrhea may easily be explained. However, more corroborative evidence is usually needed to involve the gonococcus in the generalized forms. It is still difficult to positively correlate the macular, papular, and urticarial eruptions with the gonococci in suspected cases. The ex-

anthematous types proved to be the most intriguing to the commentators. Unless very definite evidence is presented, such as the finding of the organisms in the lesions, or the presence of a positive blood culture, or a positive blood complement fixation test, it is still very difficult to make a positive diagnosis of these lesions. In addition, one must always bear in mind the possibility of dermatitis medicamentosa as it is frequently necessary to exclude drug ingestion or injection.

The specificity of the keratodermic type of the blenorrhagic eruption has fre-



Fig 2 Keratoderma blenorrhagica. Discrete keratotic papules and patches, involvement of the toes with destruction of nails

quently been questioned by some writers. Because of the similarity of this eruption to certain clinical forms of psoriasis, it would be difficult to deny that a superficial resemblance exists among keratoderma blenorrhagica, psoriasis arthropathica, and pustular psoriasis. The definite clinical course of keratoderma blenorrhagica as shown in our case rules out any suggestion of psoriasis. In our patient, there was no history of psoriasis before the onset of the illness, nor was there any familial history of psoriasis. The patient had a gonococcal urethritis which was followed by joint involvement and skin complications. The heaped-up character of the lesions, which suggested crusts rather than the scales of psoriasis and the acute nature of the illness, all pointed to gonococcal infection. We were not as fortunate as some other observers in obtaining a positive blood culture or in recovering organisms from the lesions.

A very interesting form of skin eruption and one which portends an ominous prognosis, is the hemorrhagic form. These lesions, when considered with other clinical facts, suggest gonococcal septicemia.

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References

- 1 Jesonek Arch f dermat, 65 1, 1903
- 2 Fuchs, Dora Ibid, 138 281, 1922
- 3 Solomon, Oskar Med Klin 16 398 1920
- 4 Thalman Arch f dermat, 71 75, 1904
- 5 Gengerot, H Burnier and Blum, P Hosp St Louis 1, 201, 1929
- 6 Mirabeau, Sigm Zbl Gynak, 23 1259, 1899
- 7 von Nussien M Russek Vestn Dermat, 6 1041, 1928
- 8 Selle, C G Medicina Clinica, p 214, 6th edition, Berlin, 1793
- 9 Bushke, A. Hautkrankheiten bei Gonorrhoe, Handb. d. Gesch. 2, 265 Wien, 1912
- 10 Finger E. Purpura Rheumatica als Komplikation Blen Prozesse Wiener Med Presse, pp 1532, 1564, 1593 1880
- 11 Vidal, E. Ann d Dermatolog, 4 3, 1893
- 12 Arning Ed. and Meyer Delius Arch f dermat, 108.3, 1911
- 13 Bushke and Langler Lehrbuch d Gonorrhoe Berlin, 1926
- 14 Dörner L. Deutsch Med Wochenschr 36 1905 1973
- 15 Herman O Muench Med Wochenschr 36 1905
- 16 Chevalier P. Lev. Brühl and Bourgeois, G Bull Soc Med Hosp Paris 52 30, 1927
- 17 Welander Monat f dermat 21 50 1895
- 18 Siegel, Louis Bull f Buffalo Gen Hosp 3 66 1925
- 19 Liebe Deut Med Wschr 47 1590 1921
- 20 Dainow Qnag Diss Geneva 1927
- 21 Gager E C J.A.M.A. 78 941 1922
- 22 Wadsok Berlin Kl Wschr 43 906 1906
- 23 Du Bois Chas Alta Dermatol, 5 1 1924
- 24 Loehe, H and Rosenfeld H Dermatol Z, 55 355, 1929
- 25 Lojander, W Acta Dermatol enner 8 227 1927
- 26 Rostenberg A and Silver H Arch Dermat & Syph., 16 741 1927
- 27 Cohn Isidor J A M A 107 1630 1936
- 28 Stone, Eric Jour of Urol 31 969
- 29 White Paul Heart Diseases p 343 Macmillan New York City
- 30 Peters, H L and Horn B J A M I 102 1924
- 31 Kirkland H B Am Heart Journal 7 360 1932
- 32 Hoffman A M and Tackatt F C Ann Int Med 5 1397 1932
- 33 Thayer W Johns Hopkins Hosp Bull 33 361 1922

THE HARVEST OF FOLLY

At the time when Bismarck seized upon medical care for an agency through which to control the masses of Germany, the medical profession of his land was making extraordinary strides of progress, both in the advancement of the sciences and in the application of them to the care of the sick. The momentum of its intellectual power carried Germany to a position of universally acclaimed world leadership in Medicine.

Such was the distinction held by Germany at the end of the nineteenth and beginning of the twentieth century. Compulsory health insurance brought the blight of

subordination of the profession to political control, regimentation and bureaucratic regulation. So were the economic foundations of medical care undermined. Progress lagged, then stopped. Germany has surrendered her place of leadership. Today in Germany the medical profession is pauperized, demoralized, stunned and devitalized. Where two decades ago a galaxy of brilliant medical minds shed an ever increasing light of knowledge we observe today a darkened horizon. Only a few faint stars survive. The profession could not live in poverty and retain its old vitality and vigor.—Dr Frederic E Elliott

SHIFT IN MENTAL HYGIENE POST

Resignation of Dr Frederick W Parsons as Commissioner of Mental Hygiene and appointment of Dr William J Tiffany, superintendent of Pilgrim State Hospital, Brentwood, L. I., to succeed him, were announced on Aug 26 by Governor Lehman. Dr Parsons, a native of Buffalo, has been in the state service thirty-five years having received his first appointment in 1902 as clinical assistant at the Hudson River State Hospital. He was appointed Commissioner of Mental Hygiene by former Governor Alfred E. Smith in January, 1927, and was reappointed successively by former Governor Franklin D. Roosevelt and Governor Lehman. His resignation became effective October 1.

He intends to make his home in New York City. Dr Tiffany, who is fifty-five, was graduated from the College of Physicians and Surgeons, Columbia University, in 1905. He entered the State Hospital service in 1906, after completing his internship at St. Joseph's Hospital, Paterson, N. J. He served in successive grades at Binghamton State Hospital, Manhattan State Hospital, and Kings Park State Hospital, of which he became superintendent in October, 1926. He was made superintendent of Pilgrim State Hospital in November, 1931, having been assigned there because of his organizing ability.

It is our opinion that the important clinical data to be taken into consideration are the history of a local gonococcal infection, the spiking temperature curve, the progressive anemia, the leukocyte count, the gonococcus complement fixation test, a positive blood culture, and the localized areas of purpura indicating embolic phenomena. In our three cases showing this type of lesion, to which Finger¹⁰ first called attention in 1880, we were able to obtain a positive blood culture in but one. One case showed unmistakable evidence of gonococcal septicemia at postmortem examination, yet repeated blood cultures had been sterile.

The tell-tale round or oval petechial and macular lesions usually do not appear in profuse crops. A dozen or less new lesions may appear with each new crop, and are usually accompanied by a sudden rise in the temperature. The areas most frequently involved are the skin over the extremities, especially in the region of the joints. The conjunctivae and the buccal mucosae are also occasionally affected. No part of the body is immune. The clinical evolution of the lesions is easily followed from the time when they first appear as red-blue macules to the later stages, when they evolve as elevated purplish, slightly umbilicated hemorrhagic vesiculo-pustules, with a grayish-brown color. Since the lesions appear in crops, one may at times observe numerous macules and vesicles of various colors in progressive stages. Recently Cohn,²⁷ Stone,²⁸ White,²⁹ Peters,³⁰ Kirkland,³¹ and Hoffman and Taggart³² reported cases of gonococcal septicemia and called attention to these purpuric lesions. Sometimes, these cases run a protracted course, may be followed for months by periods of apparent improvement alternating with exacerbations of symptoms and finally ending in death. As reported by Welander,¹⁷ the lesions may appear at any time. They may appear early in the disease, as in our second case, or just before exitus, as in our first case and in those reported by Cohn²⁷ and others. The case of Hoffman and Taggart³² showed some lesions twenty-six days before death and four days before death showed a positive blood culture. Two or three days before death, numerous crops of lesions had appeared over the body.

Unless these lesions are kept in mind by the clinician in suspected cases of gonococcal septicemia, they may easily be overlooked. At times, less than half a dozen may be present, and in rare instances because of the lack of a bright red color and the presence of a brownish tinge, they may be confused with lentigo Thayer,³³ who summarized twenty-two cases of cardiac complications of gonorrhea, found these lesions present in six of the eleven white and one of the eleven colored patients. He felt, however, that had these patients been more closely examined, and the search continued, all of them would have shown these lesions.

Summary and Conclusions

1 This paper presents a summary of the literature on the skin complications of Neisserian infection.

2 The skin lesions may be localized or generalized, few or numerous, and may appear in crops.

3 The regional lesions are produced by localized infection with the gonococci or discharge and present no evidence of systemic involvement. They are, as a rule, easily diagnosed, and respond to local therapy.

4 The generalized skin eruptions in gonorrhea constitute an ominous portent of serious systemic disease.

5 The gonococcal macular, papular and urticarial types should be differentiated from similar lesions due to concomitant use of drugs.

6 Keratoderma blennorrhagica may be distinguished from arthropathic psoriasis and pustular psoriasis by the history, symptoms, cutaneous manifestations, blood picture, histopathology, and clinical course.

7 In this paper, particular emphasis is placed on the occurrence of a fairly characteristic type of hemorrhagic lesion. It is our belief that it is caused by the invasion of the skin by the gonococci with the development of embolic phenomena.

8 In only one other infectious condition has one of us (L.) observed this characteristic lesion and that was in a case of meningococcus septicemia. The meningococci were subsequently isolated from the skin lesions.

study of thirty-nine different clinical conditions Fahraeus³¹ noted a parallelism between the amount of serum globulin or fibrinogen, and the sinking velocity of the blood cells. Many other observations have been made in this connection, it being almost axiomatic that a definite increase in fibrinogen and seroglobulin accelerates the rate of sedimentation. Goldberger³⁴ holds that failure of the plasma proteins to undergo change in uncomplicated acute appendicitis accounts for the unusual and valuable diagnostic phenomenon of a normal sedimentation rate in early acute appendicitis.¹⁹

An increase in the lipid content of the blood, particularly of cholesterol, is likewise considered^{12, 33} a factor in accelerating the rate of sedimentation. This may probably be explained by the fact that the lipid content of the plasma influences the viscosity of the blood.¹⁸

Diagnostic Measures Employed In Thyroid Disorders

In connection with the lipid theory referred to above, it is pertinent that a considerable amount of investigation has been undertaken in relation to the cholesterol content of the blood in disturbances of the thyroid gland.

Mason, Hunt, and Hurxthal³⁵ have published results of a study of seventy patients with disorders of this nature. They found a consistently lowered blood cholesterol in hyperthyroid subjects, and a markedly elevated level in cases of hypothyroidism, and true myxedema. The maximum blood cholesterol level for normal persons, as accepted by one of these investigators,³⁷ is 230 mg per 100 c.c. In forty-seven hyperthyroid cases, the average level was 130 mg, in twenty-three instances of hypothyroidism it was 321 mg per 100 c.c. These findings suggested that an estimation of cholesterol values might be employed as a diagnostic aid in these conditions, to corroborate the clinical symptoms (particularly in hypothyroidism) in place of basal metabolic determinations generally applied, and which they found unreliable. Grabfield and Campbell³⁸ also observed a disparity between the basal metabolic rate and blood cholesterol values in thyroid disturbances.

Low cholesterol determinations in hyperthyroidism, and high values in hypothyroidism or myxedema are reported by Lahey,³⁹ but inasmuch as hypocholesteremia occurs in infection, malignancy, emaciation, leukemia, and with vegetable diet, and since hypercholesteremia is present in nephrosis, diabetes, and in some cases of arteriosclerosis, he feels that diagnosis on this premise is unreliable. He believes that blood iodine determinations are a more valuable index of thyroid activity, and refers to a micro-method of blood iodine determination.⁴⁰ Mahon⁴¹ concurs in this opinion, believing the significance of blood iodine in thyroid disease to be similar to that of blood sugar in diabetes mellitus and of blood calcium in parathyroid diseases. On the basis of a study of various laboratory methods in thyroid conditions, he concludes that findings in connection with the sedimentation rate—in instances of hypothyroidism especially—are too variable to be of value.

A wide diversity of opinion has, in fact, been expressed in the various published articles concerning the dependability of the sedimentation rate in thyroid derangements.

Von Balden²⁵ following a study of forty cases of Basedow's disease, found a similarity in the rate of sedimentation in this condition with that of simple goiter. She regards the procedure as valueless not only as a means of differential diagnosis, but as a guide in the administration of iodine or thyroidin.

In thirty cases of hyperthyroidism, Castex and Schteingart⁹ obtained normal, increased, and decreased sedimentation rates. No parallelism was found to exist between the blood sedimentation velocity, the basal metabolic rate, and the clinical symptoms. Being influenced by so many factors, they hold that the sedimentation rate lacks diagnostic or prognostic value in thyroid disease. Rosa and Furtado²² arrived at similar conclusions. From observations in 136 cases of various types and stages of thyroid disorders, Schein²⁰ also concludes that the velocity of blood sedimentation shows no relations to the basal metabolic rate and that it is unreliable in determining the effect of treatment. Hufschmidt²⁴ also regards sedimentation rate as an impractical therapeutic index. A normal sedimentation

ERYTHROCYTE SEDIMENTATION RATE

Diagnostic Value in Thyroid Disease—Clinical Observations and Survey of the Literature

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Variations in the settling rate of the erythrocytes are believed to have been observed originally by Galen, who called attention to the formation of a buffy coat, the so-called "crusta phlogistica." Little notice was accorded this phenomenon, however, until 1771, when William Hewson¹ and, somewhat later, John Hunter² (1794), pointed to its frequent occurrence in inflammatory conditions, noting that rapidity of sedimentation was directly proportionate to the degree of inflammation present. Interest in sedimentation velocity again lagged until revived by Fahraeus³ in 1918 and Linzenmeier⁴ in 1920, who regarded it as a diagnostic feature in pregnancy and various other conditions. Although it has since been employed as a diagnostic and prognostic measure in numerous pathological states, a considerable amount of disagreement still exists as to its definite value.

Literature In Connection With Sedimentation Velocity

The majority of articles on the erythrocyte sedimentation rate have appeared within the past fifteen years. Gram,⁵ Westergren,⁶ Friedlander,⁷ Ito,⁸ Meeker,⁹ Cutler,¹⁰ Polak and Mazzola,¹¹ Katz and Leffkowitz,¹² and Schulten¹³ are among those who have presented early contributions on the subject, more recently, Bendien and Snapper,¹⁴ Bannick,¹⁵ Goldemberg,¹⁶ Gilligan and Ernstene,¹⁷ and others. In surgery, Grodinsky¹⁸ and Lesser and Goldberger¹⁹ have studied the sedimentation rate in a variety of states. Increased interest in sedimentation velocity in connection with disorders of the thyroid gland has been evidenced within the past decade by the numerous articles which have been published both here and abroad. Outstanding among these are contributions by De Courcy,²⁰ Mora and Gault,²¹ Rosa and Furtado,²² Holboll,²³ Hufschmid,²⁴ von Balden,²⁵ Taterka and

Goldmann,²⁶ Munzer,²⁷ Tschernozaton-skaia,²⁸ Caste\ and Schteingart,²⁹ and Schein.³⁰

Theoretical Considerations

The blood sedimentation rate is a non-specific test which shows acceleration in various conditions, particularly those accompanied by inflammatory and tissue-destroying processes. It is dependent upon the suspension stability of the red blood-cells, there being an inverse ratio between the settling of the red cell corpuscle and the viscosity of the plasma.

Various theories have been advanced to account for this phenomenon and, undoubtedly, a combination of factors is responsible. Blood volume and red blood-cell count are believed to play a role, and blood gases, namely oxygen and carbon dioxide (as pointed out by Fahraeus,³¹ Ito,⁸ Meeker,⁹ and others) may likewise influence the rate of sedimentation, as may electrical reaction in the erythrocytes, as suggested by Fahraeus,³² Linzenmeier,⁴ Katz and Leffkowitz,¹² Grodinsky,¹⁸ and others. Tsunashima's experimental studies³³ suggest that the thyroïdin may affect blood sedimentation. Investigating the action of the spleen and the thyroid, he holds that the latter probably has the function of augmenting sedimentation which is restricted by the spleen when they are operative in the function of blood-making, similar to the different influences of these two organs on the bone marrow.

A disturbance in the plasma proteins, however, has received almost universal acknowledgment as being the chief factor in influencing the sedimentation rate. Gram⁵ (1921) pointed to an increase in the fibrin content of the plasma in the majority of infections and in various other disturbances, with a corresponding increase in the sedimentation speed. These findings have more recently been corroborated by Gilligan and Ernstene,¹⁷ in a

TABLE I

A	Normal secretion—non-toxic
1	Colloid goiter
2	Adenoma or nodular goiter
B	Hyperthyroidism
1	Adolescent goiter
2	Graves' disease
3	Adenoma or nodular goiter
C	Hypothyroidism or myxedematous states
1	Cretins
2	Cachexia—struma priva—atrophy
3	Adolescent goiter
4	Climacteric thyroid syndrome
5	Senescence
D	Inflammatory
1	Thyroiditis—acute, subacute, and chronic
2	Hashimoto's struma
3	Riedel's struma
E	Degenerative goiter
1	Simple degenerations
2	Malignancies

more dependable method than is determination of the basal metabolism in judging the effects of treatment in Basedow's disease. They also consider the blood sedimentation rate helpful in gauging therapeutic effects, and believe it may be used in estimating the quantity of thyroidin required in hypothyroid cases.

In the treatment of obesity with thyroidin, Holböll¹² found that, in ten out of twenty-five cases, clinical symptoms of hyperthyroidism supervened. A definite acceleration in sedimentation rate occurred in these cases, with no demonstrable increase in basal metabolic rate, blood-pressure, or leukocytosis. He believes that blood sedimentation velocity of the red cells is of definite help in following the course of a thyroidin-treated patient. It would have been of interest for Holböll to have checked these results with plasma protein readings in these cases, to determine whether the thyroidin produced the increase in sedimentation rate *per se*, or indirectly by changing the albumin-globulin ratio.

It readily becomes apparent that no definite consensus of opinion exists as to the value of the erythrocyte sedimentation rate as a diagnostic criterion in thyroid disease. This diversity of findings and opinions prompted the present study

which was undertaken as an unbiased investigation, to provide additional corroborative data on either phase of the subject.

Present Series

One hundred unselected clinic cases with thyroid dysfunction comprised the series. It included a variety of types of goiter designed as diffuse and nodular, toxic and nontoxic. Clinically classified, based upon secretory function, they may be divided as shown in Table I.

Technic. Of the three most widely used methods (the Linzenmeier,⁴ the Westergren,⁶ and the Cutler⁹ methods) the Cutler technic was employed in the present series.

Exactly 0.5 c.c. of three per cent sodium citrate solution is placed in a syringe, into which blood (obtained by venipuncture) is drawn up to the five c.c. mark. The blood and citrate solution are thoroughly mixed by shaking the syringe back and forth several times, the needle having been removed from the syringe to avoid the possibility of introducing clotted blood. The contents of the syringe, the measured quantity of citrated whole blood, is then discharged into a calibrated five c.c. sedimentation tube graduated into tenths and marked in millimeters. Each tube is numbered to avoid possible error, and all samples of blood are brought to the laboratory in a rack. Before readings are made, each tube is stoppered with a paraffin-coated cork and gently inverted two or three times to insure a uniform distribution of the erythrocytes, since in some tubes marked sedimentation might already have taken place. Readings should be recorded within ten hours, as the sedimentation phenomenon begins to disappear after that time. The level of the settling column of blood cells is noted every five minutes for a period of one hour and its position marked on special sedimentation charts, on which horizontal lines represent divisions on the sedimentation tube and vertical lines, the intervals of time. In this way a graph is traced which shows the position of the sedimentation column at any period during the first hour. The more vertical the curve the more rapid is the sedimentation rate. The graphic method is perhaps the most

rate was observed in fifty per cent of his series of thyrotoxic cases, in only 4.6 per cent of the observations did it exceed thirty mm during the first hour. Munser²⁷ found parallel determinations of sedimentation and basal metabolic rates in thyrotoxicosis in only fifty-nine per cent of his cases. This he attributes to variations in the two procedures, which he believes do not concern the same pathological processes. He accepts the sedimentation test as significant only in cases showing accelerated rate, otherwise he considers the metabolic rate more dependable. Goldemberg's findings¹⁰ in a series of 195 cases are in approximate agreement with those of Munser, showing a parallelism of these tests in sixty-one per cent of his series. In forty-four per cent both tests were normal, in seventeen per cent both were accelerated. In his opinion the sedimentation rate of the erythrocytes is of value only when considered in conjunction with the clinical symptoms and with the basal metabolic rate. He believes that even if the sedimentation rate is normal, hypothyroidism may still be present, unless the basal metabolism is also normal. Bannick¹⁶ cites a case of exophthalmic goiter in which the basal metabolic rate was plus forty-six, the sedimentation velocity, five mm in the first half hour, and twelve mm in the first hour (closely approximating the rate for normal individuals, which he arbitrarily established as fifteen mm in the hour). He would therefore exclude employment of the sedimentation rate in mild or moderately severe cases of thyrotoxicosis. It seems to us, however, that findings in only one case are rather inadequate as a basis of conclusion.

Little or no acceleration in sedimentation speed occurred in cases of toxic thyroid observed by Grodinsky,¹⁸ on the other hand, considerable increase was noted in the other toxic and malignant conditions. He therefore concludes "that the toxins of infections and malignant conditions produce changes in the blood plasma that permit an accelerated sedimentation time, while the endocrine secretions, normal or abnormal, have no such effect."

Prior to operation, the rate of sedimentation was increased in all of the

thirty cases of thyrotoxicosis observed by Mora and Gault.²¹ Following the administration of iodine, the speed was decreased in six out of eleven cases, and increased in five. Thyroidectomy caused acceleration of the rate in thirteen, and a reduction in fourteen cases. According to these authors, "there seemed to be little parallelism between the sedimentation velocity, the basal metabolic rate, and the clinical picture."

Again, there are those who favor or enthusiastically regard sedimentation as a valuable index of thyroid activity. Included in this category are De Courcy,²⁰ Tschernozatonskaia,²⁸ Taterka and Goldmann,²⁹ and others. De Courcy's article is particularly outstanding in this connection, in which he states that "in the blood settling test we have a very sensitive test which, when embodied with other methods, becomes a very valuable aid to diagnosis and an accurate check to prognosis. It is especially valuable in differentiating between toxic and non-toxic states in goiter, toxic goiter and tuberculosis, pregnancy and myoma."

One of the largest series studied is reported by Tschernozatonskaia who, following both experimental and clinical investigation, was greatly impressed with results attained through the employment of the blood sedimentation rate in thyroid disorders. Among 646 cases, he found ninety-seven with hyperthyroidism who showed an acceleration of sedimentation velocity ranging from ten to forty-five mm in the hour (normal of five to eight per hour by the Pantchenkoff technic). Of 528 cases of endemic goiter associated with different forms of dysthyreosis, there were 487 with accelerated sedimentation rates, twelve with normal rates, and in twenty-nine the rate was prolonged. Tschernozatonskaia emphasizes the importance of repeated determinations. He regards them as a reliable guide in the treatment and prognosis of different thyroid diseases, inasmuch as a marked deviation of the sedimentation rate from the normal points to an advance of the morbid process, while approach to the normal rate is an indication of improvement.

Taterka and Goldmann hold that determination of the sedimentation rate of the erythrocytes is a more simple and

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October 15, 1937]

References

- 1 Hewson, William *Experimental Inquiries into the Properties of the Blood* London, 1771
- 2 Hunter, John *Treatise on Blood, Inflammation and Gun shot Wounds* London, 1794
- 3 Fahraeus, Robin *Hygica*, 80 369, Stockholm, 1918
- 4 Linzenmeier G *Zentralbl f Gynäk* 44 816 1920
- 5 Gram, H C *Arch Int Med*, 28 312, 1921
- 6 Westergren, Alf *Ergebn d inn Med u Kinder* 26 577, 1924
- 7 Friedlander, Bernhard *Amer Jour Obstet and Gynec*, 7 125 1924
- 8 Ito, Washimi *Tohoku Jour Exper Med*, 5 139, 1924
- 9 Meeker, D Olan *Clifton Med Bull*, 11 72, 1924
- 10 Cutler, Jacob *Amer Jour Med Sc* 171 882, 1925
- 11 Polak, John Oshorn and Mazzola Vincent P *Amer Jour Obstet and Gynec* 12 700, 1926
- 12 Katz, Georg and Leffkowitz, Max *Ergebn d inn Med u Kinderheilk*, 33 266 1918
- 13 Schulten, H *Rev med Germano Iber Amer*, 3 691, 1930
- 14 Bendien, W M and Snapper, I *Biochem Ztschr* 235 14, 1931
- 15 Bannick, E. G *Proceed Staff Meet, Mayo Clin*, 8 81, 1933
- 16 Goldemberg, L *Compt rend Soc de Biol*, 114 1221, 1933
- 17 Gilligan D Rourke and Ernestene A Carlton *Amer Jour Med Sc*, 187 552, 1934
- 18 Grodinsky Manuel Arch Surg, 24 660, 1932
- 19 Lesser Albert and Goldberger, Harold A *Surg Gynec and Obstet*, 60 157, 1935
- 20 De Courcy, Joseph L. *Amer Jour Surg* 39 129, 1925
- 21 Mora, J M and Gault, J T *Jour Lab and Clin Med*, 15 590 1930
- 22 Rosa, M and Furtado D *Lisboa med* 7 865, 1930
- 23 Holböll, S A *Ztschr f Klin Med* 112 437, 1930
- 24 Hufschmid, Wolfgang *Klin Wchenschr*, 9 1573, 1930
- 25 von Balden Elenore *Deutsch Arch f klin Med*, 169 285, 1930
- 26 Talerka, Heinz und Goldmann, Carl Heinz *Klin Wchenschr* 9 301, 1930
- 27 Münzer, Hans *Med Welt*, 5 1174, 1931
- 28 Tschernozatonskaya, E. P *Endocrinol*, 16 397, 1932
- 29 Castex M R and Scheitengart, M *Compt rend Soc de Biol*, 109 327, 1932
- 30 Schein, Ben Zion *Schutz med Wchenschr* 63 511 1933
- 31 Fahraeus Robin *Physiol Rev* 9 241 1929
- 32 Idem *Biochem Ztschr* 89 355 1918
- 33 Tsunashima, Y *Ofayama Igakai Zasshi*, 41 26, 1929
- 34 Goldberger, Harold A *Personal communication*
- 35 Rosenthal, Nathan *The Health Examiner*, 4 5, New York, January 1935
- 36 Mason R L *Hunt H M and Hurxthal, L New Eng Jour Med* 203 1273 1930
- 37 Hunt H M *Ibid*, 201 659 1929
- 38 Grubfield G P and Campbell A G *Ibid*, 205 1148 1931
- 39 Lahey Frank H *Minn Med* 18 761 1935
- 40 Idem *Discussion of Mahon's article (Refer ence 41)*
- 41 Mahon, G D Jr *Amer Jour Surg* 28 841 1935

GRATITUDE FOR UNPLEASANT ADVICE

It is very seldom that a physician is thanked for giving advice which is unpleasant and displeasing to a patient. The Journal of the Indiana State Medical Association prints a letter which an Indiana physician received from an anonymous patient only a short time ago. As the physician himself says, this one letter compensates him for innumerable times that he has been bitterly condemned for giving similar advice to patients who have consulted him in a venereal clinic. The letter follows:

"Dear Doctor

"About a year ago I asked your advice concerning marriage with a young man who was then, and I suppose still is, receiving treatment at your clinic. I knew all the facts of the case, but felt that if there was any chance at all of complete recovery, I was willing to wait. You gave statistics on this particular kind of disease and told me that an absolute cure, in this case, was very doubtful and due to the fact that the brain had been affected, a recurrence was not improbable. You told me the best thing I could do would be to find someone else and forget this young man as far as marriage was concerned.

"That very night I told the young man

that I thought under the circumstances we had better forget any plans for the future and, while we had no reason to be angry with each other, the best thing for us to do would be stop going out together. It was the hardest thing I ever had to do because I believed that I did care greatly for him. But your advice was too sincerely given to disregard.

"Since then I have met a young man of good character who comes from a good family. He is clean and fine, Dr ———, and I shall marry him soon. I can never thank you enough for the time you gave me when you talked to me as you did. Even outside the fact that the first young man was diseased, I know now that I never really cared for him the way I do for my husband-to-be.

"You saved me from a dreadful mistake and probably a lifetime of misery. If everyone would listen to your advice which you give so readily and convincingly, I'm sure many young people would be kept from a lot of sorrow.

I repeat, Doctor. I want to thank you a thousand times and over because I probably owe my life's happiness to you. You asked for no names when I called upon you, so that is why I shall leave this unsigned."

informative for the study of the sedimentation rate. A composite graph obtained in our series is shown in Chart I.

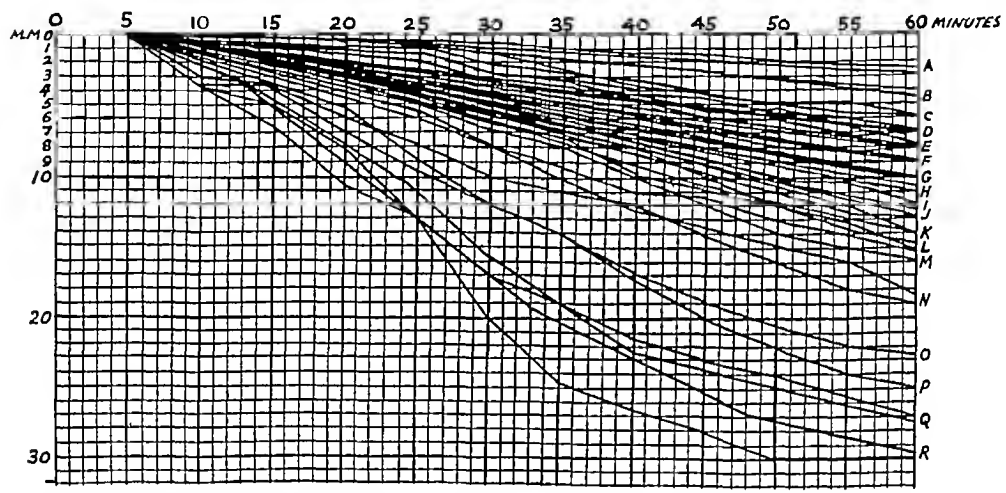
Results in the present series. A parallelism between rapid sedimentation curves and high basal metabolic rate was observed in the early cases of our series. Deviations, however, became apparent as the number of observations increased. Some patients with marked thyrotoxicosis and elevated basal metabolic rates showed normal or even subnormal sedimentation curves, while in other cases of

proved more reliable as an index of thyroid disease than the erythrocyte sedimentation rate, the latter being of no practical value as an aid in diagnosis.

Summary and Conclusions

1 The erythrocyte sedimentation rate is a nonspecific test whose velocity is increased in the presence of inflammatory and destructive processes. It is accompanied and probably due primarily to an alteration in the globulin-albumin ratio of the plasma proteins.

CHART I—COMPOSITE GRAPH OF SEDIMENTATION CURVES (CUTLER)
100 CASES THYROID DYSFUNCTION



nontoxic goiter with normal or minus basal metabolisms, the sedimentation rate was rapid.

A study of the Chart shows considerable overlapping of curves, the line in many instances representing the sedimentation rate of more than one case. An analysis of these curves reveals certain inconsistencies. A normal sedimentation rate was observed in approximately sixty per cent of the cases, irrespective of the degree of thyroid alteration or of basal metabolic rate. The remaining cases were distributed in both extremes of very slow and very rapid sedimentation rates, there being more of the latter. In neither group, however, was there absolute correlation of retarded sedimentation rate with low basal metabolic rate, or of accelerated settling rate with elevated metabolism.

The basal metabolic rates in our cases

2 A survey of the literature shows no consensus of opinion as to its value as a diagnostic aid or as a guide to therapeutic procedure. Although many observers have noted changes in the blood sedimentation rate during the administration of thyroidin, no definite value can be attributed to this test, since results in large series of cases have been so variable.

3 In the one hundred cases which constitute the basis of the present article, no consistent parallelism was found to exist between the basal metabolic rate, the blood sedimentation rate, and the thyroid entities.

4 Our results coincide with the opinion of those investigators who find the erythrocyte sedimentation rate an unreliable index of thyroid activity.

115 E. 82 St
125 E. 63 St

most other writers in that we found comparatively few complications and sequellae after injection treatment. We believe that with care and a previous accurate knowledge of the anatomy and technic that this method is not fraught with much danger. Peritonitis has been described after injection of the solution too deeply. This has been a very rare occurrence and should ordinarily be avoided. Atrophy of the testes was observed only once in our series and then it was slight in degree. Impaired sexual power was complained of by three patients, although it must be explained on a functional rather than an organic basis.

Fatalities are exceedingly rare if one judges by reports in the literature. Fowler found only four in some 30,000 reported cases. None of our cases died as a direct result of injections although the method may have been responsible indirectly for a fatal outcome in the following case.

Male, aged fifty-four, received five injections in our clinic. He then disappeared and turned up later at another hospital where an operation was performed, apparently the operation was fraught with unusual difficulties because the femoral vein was injured necessitating a later amputation of the thigh. The patient finally succumbed to pulmonary embolus.

Experimental Work

Results of experiments on animals have been cited to demonstrate the response of tissues to the irritating effects of various solutions. Microphotographs reveal the tissue reaction and fibroblastic proliferation which follows. Kelly of Detroit has done considerable work along this line and his microphotographs taken from sections made at varying intervals after injections in dogs are of great importance. They show that while early changes are well-marked, the reaction subsides and the tissues return to a more or less normal state with the lapse of time. In a personal communication, Kelly states

I am sure that if we could maintain the original condition which we produce, and which you have found clinically and we have found in our dogs, that we could cure a large percentage of hernia. However, no solution has yet been devised that will

maintain this tissue. I am not as yet, however, convinced that such a solution may not be devised.

Findings at operation after injection method had failed. We were much interested in the opportunity afforded us to observe the gross appearance and to study microscopic sections of the various layers in cases previously injected without success. In all, ten such patients came to operation. There was a variation in the interval elapsing between the last injection and the operation but in all a sufficient period of time had elapsed to permit the early proliferative changes to subside. In no case did we find the clinical or microscopic evidence of a strong bulwark of built-up scar tissue, such as is claimed by many to be the result of injection treatment. In one or two cases some strands of connective tissue partially occluded the opening of the neck of the sac. There was some increase in the fixation of the external oblique aponeurosis to the underlying muscle and conjoined tendon, but in the main, there was little residual evidence of efficient conversion of weak areas of the abdominal wall into strong resistant layers. In fact, for the most part, there was little evidence of any residual tissue reaction of consequence. (Table I)

Results of injection treatment. The immediate results in most of our cases were gratifying, that is, impulses disappeared, the areas felt strong, and the patients regarded their hernias as controlled. In the majority of instances, this result was maintained for several months. Thereafter, however, the condition gradually reversed itself until eventually most of the hernias were again felt by the patient and the examiner to have approached the situation present before the injections were begun. One or two patients appeared to be cured for a longer period, one for over a year after removal of the truss but in this case, the hernia then "recurred" and was recently operated upon.

The results in this series of sixty-six patients with ninety-two hernias are as follows

First case injected on October 31, 1934
Last case injected on October 5, 1936
Of the 66 cases, 4 died, 6 cannot be traced

INJECTION TREATMENT OF HERNIA

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Medical history reveals that many of the various methods of treatment employed, some at the present time, have run a cyclic rather than a continuous course in popular usage and favor. This may be said to be true of the injection treatment of hernia—a method having considerable vogue at the present time. Succeeding generations have witnessed a revival of this method, with, perhaps, some variation in the formula used. Velpeau, more than a hundred years ago, in an effort to cure hernia by sac obliteration, first practiced the method of injecting irritating solutions. Prior to 1844, Pancoast used iodine and tincture of cantharides in thirteen cases. Heaton in 1842 tried tincture of iodine. In recent years, Pine-Mestre of Barcelona, Spain, in an enormous number of cases has tried an original solution of vegetable extracts, mainly tannic acid derivatives. Fowler of New York has done considerable work in this field and has written extensively on the subject. Quillin, Bratrud, Harris and White, Ross, McMillan and Cunningham—all have contributed to our recent knowledge of this form of treatment.

As to the *technic* of injection, this has been described in detail so often that it is unnecessary to repeat it here. Suffice it to say that before commencing the injections it is necessary to provide the patient with a truss that fits snugly and holds the hernia completely reduced at all times. This in itself is no mean task since experience has shown that at least seventy-five per cent of truss-wearers fail to maintain complete reduction of the hernia. The truss must be worn continuously day and night for at least one month from the date of the first injection, thereafter, for six months during the day time, and some writers have insisted on an even longer period. Injections are made usually two or three times a week until from ten to twenty have been given. Patients are supposed to be able to continue at their usual occupations.

Indications for Treatment

Opinions vary considerably as to the indications for injection. Some writers include all reducible hernias that are susceptible to complete retention of the hernia by a properly fitting truss. They use the method for umbilical, femoral, and postoperative ventral hernia, as well as for inguinal hernia both indirect and direct in type. Others exclude all but simple indirect inguinal hernia. Our view is that only the indirect inguinal hernia or small recurrent inguinal hernia (usually direct in type) that is readily reducible and completely retained by the truss should receive injections. We would exclude all other forms.

Ross recognized the following indications:

1. Conscientious objectors to surgery
2. Economic reasons (a) Time saved from hospitalization (b) Cost of hospital care saved
3. Elderly people
4. Other poor surgical risks
5. Recurrent hernias

Contraindications include sliding hernia and hernia associated with mal descent of the testes. Ross recognized the following:

1. Adherent nonreducible types
2. Large ventral and umbilical hernias
3. Femoral hernias (cannot be held with a truss and are too near the femoral vein)

Theoretically it would seem that indirect inguinal hernia in children below the age of sixteen, should be particularly favorable for injection, for the occasional apparent cure in such cases by the simple wearing of a truss is known to all. However, we are not familiar with any statistics that would indicate that injections have been employed extensively in young children. The difficulty of maintaining constant application of the truss at all times in these young individuals must be obvious.

Complications

Our experience coincides with that of

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HERNIA

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(Continued from preceding page)

No	Name	Age	Sex	Type	Primary or recurrent	Date injections were begun and ended	Number of injections	Interval between last injection and operation	Operative findings
8.	B McG	27	M	LOIH	P	11-9-34 12-28-34	15	9 mos.	Operation October 29 1935 External ring fairly well filled with scar tissue, some thin adhesions uniting external upper leaf to external oblique muscle Throughout operation more bleeding than usual in uncomplicated hernia. No adhesions between muscle and Poupart's ligament cremaster thickened Sac adherent to surrounding cord structures. On opening sac found some very thin adhesions which caused almost but not quite complete obliteration
9	E.M.*	74	M	ROIH	P	11-12-34 12-31-34	17	3 mos.	Op April 4 1935 Dark red sac exposed filled with bloody fluid Gut very dark blood supply interfered with for distance of 8 cm On relieving constriction gut proved viable. Strangulation occurred because of non-resiliency of internal ring due to infiltration from injections Chronic productive inflammation
10	GP	52	M	ROIH	P	1-11-35 1-28-35	17	34 days	Op July 16 1935 Subcutaneous tissue edematous Aponeurosis in places necrotic in others showing some evidence of fibrosis and adhesions Muscles infiltrated with edema and some scar tissue On right side was large scrotal sac densely adherent to cremaster which was enormously thickened. Few adhesions in neck of sac however not closing it.
				LOIH	P	3-22-35 6-12-35	19		

* Operated upon at other hospitals

Of the fifty-six traced cases there were
Known failures forty-seven or 81.03 per cent* (Ten of these had subsequent operation)

Possible Cures eleven or 18.96 per cent
(2 well from 6-16 months 9 well from 13-23 months) But nine of the eleven are still wearing trusses and will not remove them, leaving

Probable Cures two or 3.44 per cent

Conclusions

1 The injection method, while old, has recently been revived and is commanding widespread attention

2 The advantages claimed for it include elimination of risk of operative

fatality and of postoperative complications, an economic saving by virtue of no loss of wages during hospitalization and postoperative care, and no hospital expenses

3 The disadvantages are the prolonged period required for treatment during which the truss must be constantly worn, the uncertainty of the method, and the high percentage of failure to produce a complete cure of the hernia

4 The basic principle of the injection method is the production of fibroblastic tissue, or, in reality, of scar-tissue formation. Scar tissue notoriously tends to stretch and is weaker than normal tissue. The likelihood of a permanent cure, therefore, is slight except in those cases in which the fortuitous obliteration of the neck of the sac is produced by agglutination of the peritoneal surfaces. It seems

* Percentage based on fifty-eight, as two were double hernias

TABLE I—FINDINGS IN 10 INJECTION CASES OPERATED UPON

No	Name	Age	Sex	Type	Primary or recurrent	Date injections were begun and ended	Number of injections	Interval between last injec- tion and operation	Operative findings
1	H B *	54	M	ROIH LOIH	R P	11- 9-34 11-19-34	1 4	28 days	Op 12-17-34 Communication Operation diffi- cult femoral vein damaged, ligated, gangrene of limb, am- putation, death from pulmonary embolism
2	W J C	54	M	ROIH	R-3	1-12-35 7- 8-35	20	11 mos	Op Oct 31 1935 All anatomi- cal landmarks much obscured and obliterated Mic. ex fibro fatty tissue of hernial sac infil- trated by numerous round cells One small area showing simple necrosis No evidence of newly formed connective tissue
3	S C	54	M	ROIH	P	5-20-35 6-28-35	11	20 mos	Op March 30 1937 1 Between spontaneous tissue and surface of ext oblique was a layer of scar tissue which could be dissected off surface of apo- neurosis as a separate fibrous layer 2 Beneath aponeurosis scar tissue caused adhesions between it and underlying int oblique muscle 3 On mesial aspect of neck of sac were several dense sclerotic bands. Interior of sac gave no evidence of injection effect Omentum not adherent In direct sac 5 x 1 cm in diameter
4	A P *	34	M	LOIH	P	4- 1-35 8-26-35	30	10 mos	Op November 1936 Sac was found unaffected by injections No evidence of any result of treatment except in subcuta- neous tissue (communication)
5	K. G *	27	M	VH post-op	P	3- 4-35 7- 1-35	9	11 mos	Op May 19 1936 External and internal oblique densely and tightly adherent to each other The only apparent effect of injections was to increase the scar tissue in this area
6	R. L	46	M	ROIH	P	12-3-34 11-1-35	23	10 mos	Op July 31 1936 Dense scarring of subcutaneous tissue Inter- nal oblique adherent to Pou- part's ligament as if it had been sutured Indirect sac 4 cm in length with no adhesions within sac which contained omentum Mic. ex Mass of scar tissue scler- otic blood vessels and round cell infiltration Appearance suggests attempt at fibrous repair Diagnosis Chronic inflammation
7	FWL *	36	M	LOIH	P	2- 6-35 11-15-35	19	4 mos	Op March 20 1936 Internal ring on right side was markedly fibrotic Aside from that there was no evidence of any reaction to injection treatment

* Operated upon at other hospitals

(Continued on next page)

ROTATED FIBULA

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This is a condition not considered in standard texts. The term was coined and my attention first called to it (about ten years ago) by Dr John J Masterson, radiologist at the Norwegian Hospital. The name implies a tearing of the calcaneo-fibular, anterior talofibular, the anterior and posterior lateral malleoli ligaments, and the interosseous ligaments allowing the fibula at the inferior tibiofibular articulation to rotate outward and posteriorly. Clinically it is usually diagnosed as a severe sprain as the radiologist reports it negative for fracture. Careful study of the x-ray, however, will show the fibula pulled out of the groove at the fixed tibiofibular syndesmosis. I prefer to call it a rotated or dislocated fibula.

Etiology

This condition is caused by the patient turning on his ankle while bearing weight. The astragalus twisting in its joint between the malleoli, spreads the malleoli apart. The ligaments about the lower end of the fibula, being weakest, give way, allowing the fibula to rotate. I believe that in most severe sprains there is interference with the inferior tibiofibular joint. But in only those cases where the space between the fibula and tibia syndesmosis is visualized by x-ray do I use the term rotated fibula.

Diagnosis

There is a history of the patient turning on his ankle with the resultant pain,

swelling, and inability to walk. There is marked swelling of the ankle below and anterior to the fibula which extends up between the tibia and fibula a distance of two or three inches accompanied by a visible bony broadening between the tibiofibula malleoli independent of the soft part swelling. Tenderness is found in any sprained ankle, plus severe tenderness along the lower two or three inches to the medial side of the fibula. There is practically no tenderness over the bone itself. On further palpation the posterior inferior surface of the fibula, at the lateral malleolus, is further posterior than in the uninjured ankle.

X-rays show the fibula pulled out of the groove (Fig 1 and 2)

Treatment

Traction is applied for five minutes to produce relaxation. With the thumb on the fibula malleolus, the malleolus is pushed anteriorly and inward. When it is heard to snap into place the foot is flexed on the ankle and inverted. This forces the external anterior protuberance of the tibia against the fibula while the peroneus longus and brevis are made tense forcing the fibula against the external anterior protuberance of the tibia (Fig 3-8). A cast is then applied from the toes to the lower third of the leg. The cast is left in place for four weeks. The ankle is then strapped in flexion and inversion and gradual weight-bearing allowed. The

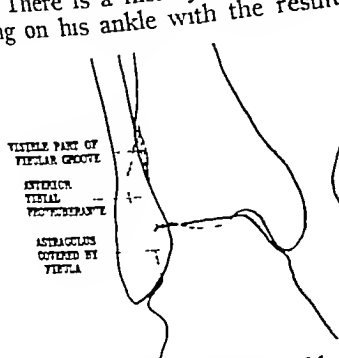


Fig 1 Normal left ankle, female, age twenty-one

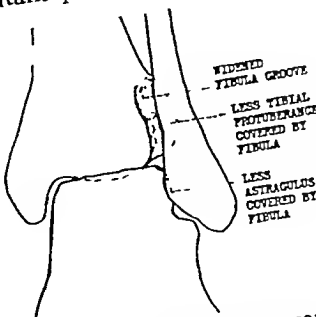


Fig 2 Right ankle, same patient as Fig 1. Rotated fibula.

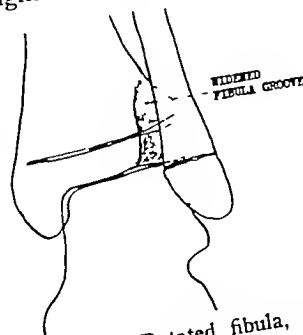


Fig 3 Rotated fibula, girl, age thirteen, before correction

most unlikely that strong and lasting tissue could be "built up" by the injection method thus converting weak musculature and thinned-out aponeurosis into competent resistant abdominal layers

5 The success of the method should be judged by careful follow-up records based on physical examinations such as have been used to evaluate the results of surgical operations

Comment

The glowing accounts of economic saving accomplished by the injection method must be carefully scrutinized. True, the arguments brought forward by the proponents of the method, *viz* economy resulting from no loss of time from work, no hospital bills, and the absence of risk of mortality, are cogent ones. However, when it is realized that a fair proportion of operable cases have undergone a course of injections without success and have subsequently required an operation, the arguments lose some of their force. Assuming that, say, seventy-five per cent of the injection failures require a subsequent operation, it is seen at a glance that the cost of injecting the entire group plus the cost of subsequent operations on the failures, far exceeds the sum expended for immediate operation upon the entire group.

This brings up a fact frequently emphasized by advocates of the injection

method, *i e*, the considerable proportion of failures following operative measures. No one who has had a large experience in hernia surgery can disregard the fact that traditional operations for hernia do have a large recurrence-rate. Of course, the percentage of failures varies somewhat with the technical skill of the surgeon, but—and what I believe to be even more important—it varies with the accuracy and the time interval of the follow-up record. Only those statistics that are based upon actual follow-up examinations (not communications) made at least one, and preferably two years after operation, are of the slightest value. Such statistics seem to be conspicuously lacking in all of the recent articles favoring the injection method. Until some clinic brings forward a series of consecutive injection cases traced and examined and found to be free of evidence of hernia two years after the removal of the truss, we are still without authoritative data on which to base an opinion regarding end-results. These figures should be forthcoming from sources such as Bratrud's clinic in Minneapolis or Quillin's in Chicago. In the meantime, lacking these comparable results, I feel that the profession is not justified in offering the injection treatment to patients with operable inguinal hernias as an alternative to surgery.

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A BIG DRIVE FOR HEALTH AND WELFARE

Between mid-October and the end of the year, 398 American cities, representing approximately two-thirds of the country's urban population, will raise community funds to maintain their private health and welfare services. Through the generous cooperation of a few advertisers of national reputation, the facilities of the regular commercial broadcasts of these organizations will be dedicated by them to reminding the great radio public of the importance of this Community Mobilization for Human Needs. The community chests in these 398 cities

support a multitude of community activities which, though of vital local necessity, are not financed by government tax funds. These chests raised \$80,000,000 last year.

The local agencies thus financed, including among others hospitals, youth organizations and settlements, are sponsored by Protestant, Catholic and Jewish, as well as civic, business, labor, and other non-sectarian groups. They provide hospitalization, public health nursing, child care, family welfare, and other basically important community services.

A well-known New York physician was having an old x-ray machine taken out, and the worker, stripped to the waist, was clambering about among the wires and pipes overhead, when a friend of the doctor came

in, "What's that fellow doing up there?" he asked. "Sh-h-h!" whispered the doctor, "that's one of my patients that I have just fitted with monkey glands, and he thinks he is climbing a tree."

DENTAL CARIES IN CHILDREN

Clinical Control

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Rational control of dental caries is preventive rather than reparative. It requires not only the services of the dentist but also those of the pediatrician and obstetrician, if the proper anlage is to be laid from conception. But even with supervision dental caries occurs throughout infancy and childhood. It is explicable on the basis of the thirty factors or more that produce various types of dental caries. As a consequence of the various permutations and combinations of these factors about three million conditions become possible in the daily formation of tooth decay in children. Clearly there is but one state of dental health and many states of dental caries that, according to the theory of probability, the chances appear all against dental immunity.

In the medical management of dental caries in children we have in the last decade formulated a therapeutic plan based on the determining factors—constitutional, endocrine, metabolic, nutritional, and oral. To illustrate the procedure we grouped one hundred children with caries-susceptibility with an equal number with relative immunity. Such a comparison of extremes with respect to tooth decay helped to check specific factors present in one group and absent in the other. Children with dental caries were treated locally and systemically as would any child with an inflammatory process somewhere in the body. Since there is no specific preventive measure universally applicable to all children with dental caries we adapted current practices according to individual requirements.

I Constitutional Factors

We observed that seven out of one hundred children with dental caries had a familial susceptibility to the disease. The mothers of these children each received competent prenatal supervision. Dental caries prevailed in most members of the family despite rational dental and medical measures for its arrest. Caries persisted in these otherwise normal children de-

spite the rigid therapeutic procedures outlined below. The arrest in caries was transient, exacerbations following alimentary, infectious, and emotional disturbances. On the other hand we observed that nine out of a hundred children free from caries had an individual immunity to the disease. Six of these children came from families with sound teeth and three of them appeared to resist caries despite the prevalence of caries in other members of the family. Three of this group resisted caries in spite of unfavorable dietary and hygienic measures. Constitution thus appears a significant factor in susceptibility and immunity to dental caries. Clinically no distinctive features have been discerned characteristic of either group, i.e., sex, race, body build, bony contour of head or skin coloring.

But the teeth of these children are distinctive physically and chemically. In the caries-susceptible group there are steep cusp-inclines and food impacting areas while some teeth are more susceptible than others because of chemical differences. Brothers and sisters apparently differ in susceptibility or immunity to caries depending upon the dental pattern inherited. The dental structure of one side of the family may be susceptible to caries and that of the other immune. Whichever of these types of dental structure the child inherits he becomes predisposed or immune to caries. On this basis dental caries may be explained in this small group by Mendelian segregation.

Development of teeth depends on the character of the anlage, the adequate supply of calcium, phosphate and basic minerals, the materials from which teeth are made, and finally the regulatory hormones, vitamins, and other materials in the circulating fluid favoring tooth formation. The character of the anlage is determined chiefly by heredity. Embryologically the tooth is formed first and then bone around it. Teeth are thus structures surrounded by bony framework whose development depends mostly upon that of the teeth. Their maintenance

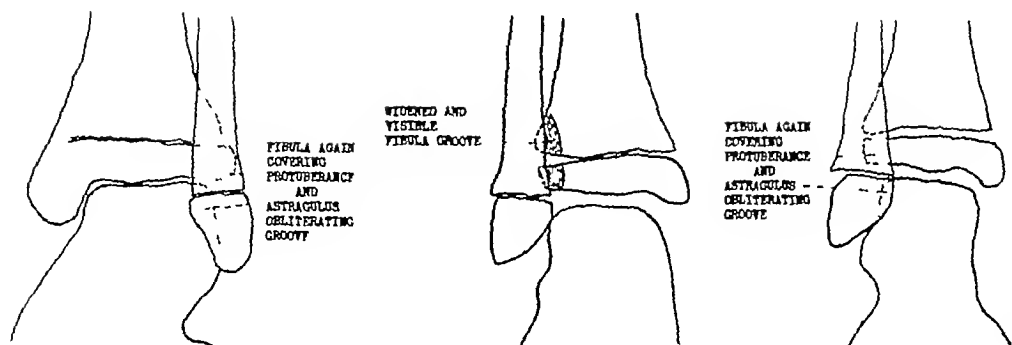


Fig 4 Same as Fig 3, after correction

Fig 5 Rotated fibula, left, boy of eight

Fig 6 Same as Fig 5, after correction

patient usually completely recovers at the end of six weeks

Comment

My early diagnostic experience with this condition was purely one of x-ray. It is only in the past three years that I have been able to diagnose it clinically and show it to others that they could diagnose it before x-rays were taken. I have

seen numerous cases that were never reduced (Fig 9 and 10) and several that I was unable to reduce a few years back. These people continue to have pain and discomfort for months after their injury.

In this paper I have dealt with a rotated fibula only. It is not uncommon to find it associated with a fracture of the lower end of the tibia or fibula. In this event reduction is not as essential as the callus formed about the fracture seems to unite it to the tibia. This prevents the pain in later weight-bearing.

Summary

A condition of rotated fibula is presented which has a distinct pathology, diagnosis, and treatment. In view of this I believe that it should be classified as a clinical entity.

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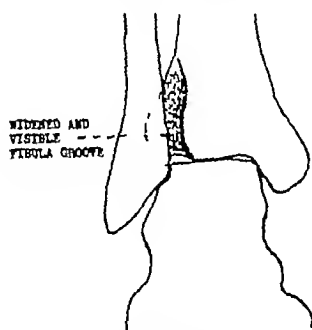


Fig 7 Rotated fibula, female, age thirty, left

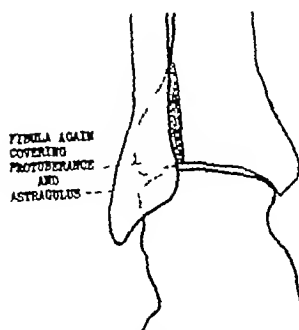


Fig 8 Same as Fig 7, after reduction. This is not a true anteroposterior view. This slightly distorts width of groove.

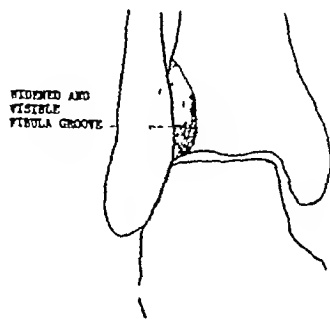


Fig 9 Rotated fibula female, age twenty-six. Condition not recognized, strapping was only treatment given.

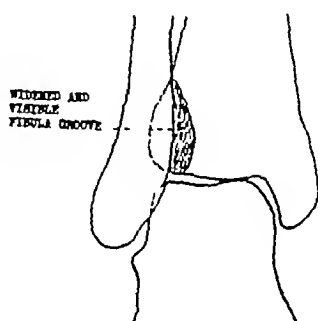


Fig 10 Same patient as Fig 9, female age twenty-six. Rotated fibula, one year later, still rotated condition not recognized at time of injury. Patient complaining of constant swelling of ankle. Inability to bear weight without severe pain.

remained arrested provided the children were maintained on optimal dietaries

In contrast with these caries-susceptible children with endocrine disturbances we observed a number actually resistant to caries—six with adiposogenitopituitarism, one with hyperpituitarism, and one with hyperthyroidism. Only three of these children had previously been maintained on dietaries considered preventive of dental caries. Curiously enough all of them remained free from caries despite periodic effort to reduce their weight by dietary restriction. Some endocrinologists maintained that children with Froehlich's syndrome are immune to caries, and Boenheim⁸ refers to cases of hyperthyroidism as having sound teeth. Most of the observations on the dental status of children with endocrine disturbances bespeak rampant caries.

Formation and development of teeth are regulated by the endocrine system as are other bodily structures. Growth is under the influence of the anterior lobe of the pituitary gland, the thymus, gonad and adrenal cortex, and differentiation is regulated by the thyroid gland. In healthy children these two functions proceed in proper relation to one another and any discrepancy in their rate of progress results in developmental defects. There is a tendency, however, to ascribe an observed dental disturbance to a particular gland. Actually, however, a dysfunction in any one gland shifts the entire endocrine equilibrium to the extent that the whole system is at fault. Practically, however, there is one determining gland where functional correction brings about a more or less complete endocrine equilibrium. Whatever the glandular disturbance, dental caries is necessarily a secondary manifestation.

In hypothyroidism the structure of the dentine and enamel is abnormally soft. There is an extreme degree of root absorption and the crowns of the teeth lack density. Roentgenograms show marked decalcification of the superior maxilla. The improper development of the teeth predisposes them to caries. The thyrogenic basis for dental caries has been demonstrated⁹ conclusively by investigators in goitrous regions—Switzerland, Austria, southern Germany, and the mid-western states.

In hyperthyroidism the enamel is ex-

tremely poor, the dentine eroded and brittle because of the negative calcium balance characteristic of thyroid overfunction. Hence the tendency to tooth decay. Sattler maintained that the disposition to caries is due primarily to thyroid overactivity while Parhon¹⁰ attributes the caries to a dysfunction of parathyroid involved secondarily in hyperthyroidism. Particular emphasis must be placed on the administration of a high calcium dietary supplemented with vitamin D in order to safeguard the teeth from decay.

In hypopituitarism the lower teeth are considerably behind the upper producing a marked overbite. The lower front teeth are often crowded out of alignment because of the small size of the lower jaw. The teeth are small and delayed in development. Dental decay may prevail because of diminished density of the dental crown and the slow repair of tooth structures.

In hyperparathyroidism there is a generalized decalcification of the dentine as of all the bones. The dentine is soft and almost mushy in extreme cases which makes cavity preparation extremely difficult.

III Metabolic Factors

We have observed twelve children with dental caries secondary to metabolic disorders—two with cyclic vomiting, two with celiac disease, three with alimentary allergy, two with epilepsy, and three with chronic sinusitis. In contrast with this group there were eight children immune to caries—three with diabetes and five with hemophilia. In the former group, decay was not arrested until the metabolic condition was alleviated. The caries cleared three to five months thereafter but recurred with metabolic exacerbations. It became evident in the caries-susceptible group that the diet, apparently adequate in every essential, was not properly utilized. Valuable constituents were lost by vomiting, diarrhea or food intolerance because of some organ dysfunction. The necessary tooth materials may be brought by the blood stream to the teeth and still be unused. That which is absorbed and utilized rather than that which is offered is significant in body economy.

In dental metabolism Boyd, Drain, and

thus is determined primarily by the child's constitution and secondarily by local conditions

Hereditary predisposition to caries-susceptibility or immunity appears evident in some children. Certain families have sound teeth and others have defective teeth, and can be followed from one generation to another. Mellanby, Marshall, Toverud, and others observed that faulty structure predisposes to caries. May Mellanby¹ found eighty per cent of the carious teeth in children showed structural defects on histological examination. Hypoplastic teeth are rough and have pits and fissures as opposed to perfect teeth which have a hard smooth surface. Others, however, found that caries susceptibility is not determined by tooth structure. The most resistant teeth become carious, and poorly calcified hypoplastic teeth remain caries free under favorable conditions.

Heredity determines caries susceptibility irrespective of diet. Some of Bunting's⁴ caries-free children could eat any food or any quantity of sugar without a resultant increase in caries or in the *B. acidophilus* of the mouth. In the caries-susceptible children the disease could not be checked by adherence to any kind of satisfactory diet. Jay⁵ found that children hereditarily immune to caries remain free from lactobacilli regardless of the amount of sugar consumed. Considerable evidence exists in favor of clear-cut hereditary disposition of susceptibility or immunity to caries. Hess,⁶ however, demonstrated that children in orphanages with the most diversified heredity may nevertheless be kept free from caries on optimum dietaries.

Prenatal factors are important in predisposing children to dental caries. The teeth of infants begin to develop early in intrauterine life. Tooth germs of deciduous teeth have been demonstrated² in the embryo of ninety-two days, the first permanent molars at one hundred days, dentine and enamel at one hundred sixty-four days. At birth all of the temporary teeth are calcified to the extent of about twenty per cent of the total and the crowns of the permanent first molars practically none. Diet of the expectant mother appears to exert some influence upon the development of the temporary teeth. But

embryonic tissues possess an extraordinary growth impulse enabling them to remove required nutrient materials from maternal fluids in which the amounts present are minimal. The fetus thrives as a parasite irrespective of the mother's status. It is only when nutritional deficiencies are great that both fetus and mother are affected. The total calcium requirement per day is about one gram for the normal adult and the pregnant woman needs but one-tenth of a gram of calcium extra for the fetus. Prenatal care fails to protect many infants from dental caries of their deciduous teeth unless initiated early in pregnancy.

Dietary deficiency particularly in calcium and vitamins A, C, D in the expectant mother disturbs the early development of the teeth in intrauterine life. When the diet of the mother is deficient in calcium and in vitamins A and D, the alterations in the mineral composition of the teeth of the young are much greater than when the diet is deficient in calcium alone.

Neff observed extensive hypoplasia in deciduous teeth of infants as a result of deficient prenatal dietaries. Toverud and Toverud⁸ demonstrated the value of a balanced maternal diet for the teeth of the offspring. They observed a positive calcium and phosphorus balance on a daily intake of 16 and 20 grams respectively during pregnancy. Bloom⁷ gives dicalcium phosphate throughout pregnancy to improve the infant's resistance to caries.

II Endocrine Factors

We observed chronic caries in children with endocrine disturbances—six with hypothyroidism, two with hyperthyroidism, two with hypopituitarism, and one with hyperparathyroidism. Each of these children were under medical and dental care simultaneously. Every effort was made to clear the endocrine disturbance as well as maintain a favorable nutritional regimen outlined in Part IV. Nevertheless the arrest in caries was transient, readily disturbed by alimentary, infectious, and other illnesses because the metabolic status of these children remained unstable. But once they were in basal equilibrium with the determining endocrine condition under control, caries

testinal indigestion due to food hypersensitiveness can be prevented with the elimination of offending foods. It is the intolerance to food providing the fundamental constituents necessary for the maintenance of dental metabolism that is probably productive of decay in these three children.

In epilepsy, the convulsion of undetermined etiology, can be controlled by the ketogenic diet, which consists of a large amount of fat with minimal amounts of protein and carbohydrate. Although it can be made to fulfill all the nutritional requirements of the growing epileptic child it nevertheless tends to be acid-forming in mineral content and frequently inadequate in the mineral intake. As a result normal dental metabolism is interfered with as has been previously demonstrated. We have, therefore, offered ketogenic diets that are alkaline-forming in their mineral content and have thus been able to arrest caries once the convulsive seizures have ceased.

In chronic sinusitis, metabolic efficiency is impaired because of a series of disturbances. The initial focus of infection interferes with breathing, food intake, and gastric digestion. The focus gradually gives way to loci of infection with the alimentary and systemic absorption of the infection. With the abatement of the chronic sinusitis and improvement in the food intake and utilization, caries becomes arrested systemically.

IV Nutritional Factors

We found sixty-four fairly nourished children susceptible to caries, whose daily dietary did not fulfill optimal requirements. This group was in striking contrast with the sixty-six who showed immunity to caries on the basis of a daily dietary quite satisfactory in every nutrient requirement. In order to evaluate each of the nutritional factors, we made a differential study of the characteristics of the dietaries of both caries-susceptible and caries-immune children. Since the nutritional aspects of caries are concerned with carbohydrate content, acid-base equilibria, calcium, phosphate, and vitamins A, C, and D, the relative levels of these nutrients were determined for each child.

1 Carbohydrates Nineteen of the sixty-four caries-susceptible group were maintained on a high carbohydrate diet, while forty or the sixty-six of the caries-immune group were maintained on a low carbohydrate regime. From this there appears some significance in the role of carbohydrate in caries-immunity in comparison with that for caries-susceptibility. The carbohydrate content of the diet apparently has some influence on the health of the teeth. While experimentally sugar has never been demon-

TABLE III—CARIES-SUSCEPTIBILITY AND CARIES-IMMUNITY IN CHILDREN

I	Constitutional Factors	Susceptibility		Immunity	
		Individual	7	Familial Paternal	2
II	Endocrine Factors	Hypothyroidism	6	Adiposogenital pituitarism	6
		Hyperthyroidism	2	Hyperthyroidism	1
		Hypopituitarism	1	Hyperpituitarism	1
		Hyperparathyroidism	1		
III	Metabolic Factors	Cyclic vomiting	2	Diabetes	3
		Celiac disease	2	Hemophilia	5
		Alimentary allergy	3		
		Epilepsy	2		
IV	Nutritional Factors	Sinusitis	3		
		High carbohydrate	19	Low carbohydrate	40
		Acid minerals	43	Basic minerals	45
		Low calcium	22	High calcium	29
V	Oral Factors	Low vitamin D	35	High vitamin D	10
		Low vitamin A	5	High vitamin A	13
		Low vitamin C	24	High vitamin C	47
		Excessive sugars	2	+ Mouth Care	9
		Acid fruits	1		
		-Mouth care	4		

TABLE IV—BASE-FORMING DIET

Age 6 years	Calories 1500	Potential Alkalinity 61 cc
Calcium 12 gms.	Phosphorus 11 gms.	
Protein 51 gms.	Fat 68 gms.	Carbohydrate 185 gms
Food	Amount	Ounces Acid Base
Breakfast		
Orange juice	$\frac{1}{2}$ c	4
Rolls oats	$\frac{1}{2}$ c.	$\frac{1}{2}$ dry 2 4
Lima bean muffin	1	1 $\frac{1}{2}$
Butter	$\frac{1}{2}$ pat	1 6
Milk	1 c	8
Cod liver oil	1 T	$\frac{1}{2}$
Dinner		
Beef roast lean	v sm serv	1 4 1
Potato baked	1 med	3 $\frac{1}{2}$
Carrots	4 T	2
Peas	4 T	2
Lima bean muffin	1	1 $\frac{1}{2}$
Butter	$\frac{1}{2}$ pat	$\frac{1}{2}$
Milk	1 c	8
Apple baked	1	1 $\frac{1}{2}$
Cream, light	2 T	1
Almonds	5	$\frac{1}{2}$
Supper		
Salad		
Orange	$\frac{1}{2}$ med	1 $\frac{1}{2}$
Banana	1 med	3 $\frac{1}{2}$
Raisins seeded	15	1 2
Lettuce	10 L.	3 $\frac{1}{2}$
Cream	2 T	1
Lima bean muffin	1	1 $\frac{1}{2}$
Butter	$\frac{1}{2}$ pat	$\frac{1}{2}$
Milk	1 c.	8 6 5 67 5

TABLE I—CONTROL OF DENTAL CARIES IN CHILDREN

<i>Etiology</i>	<i>Type Caries</i>	<i>Treatment</i>
CONSTITUTIONAL	a. physical	Correct functional insufficiency, arch crowding malocclusion, pits, fissures
	b. chemical	
	Hypoplasia	Correct thyroid, pituitary or parathyroid dysfunction
ENDOCRINE	a. physical	Add Ca & P vitamins A C & D
	b. chemical	
METABOLIC	Odontoclasia	Base forming diet
	Hypoplasia	Increase Ca & P retention
	Mottling	Avoid fluorine water
NUTRITIONAL	Decay—chemical	Base-forming diet—Ca, P, vitamins A, C & D Detergent foods
	a. mechanical	Correct mouth care
ORAL	b. chemical	Mild alkaline dentrifice
	a. direct	Avoid acid fruit between meals
	b. indirect	Avoid sugars and fermentable carbohydrates
	a. bacterial plaques	Base-forming diet Avoid sugars and fermentable carbohydrates
	Decay b. B acidophilus	Correct mouth hygiene Masticatory stimulation Prophylactic odontology

TABLE II—DISTRIBUTION AND DURATION OF CARIES-SUSCEPTIBILITY AND CARIES-IMMUNITY IN CHILDREN

<i>Etiology</i>	<i>% Susceptibility</i>	<i>% Immunity</i>	<i>Duration</i>
Constitutional	7	9	Indefinite
Endocrine	10	8	Years
Metabolic	12	8	Months
Nutritional	64	66	Weeks
Oral	7	9	Days

Stearns¹¹ found a definite relationship between adequate retention of calcium and phosphate and resistance to dental decay. There is thus a very close relationship between metabolic efficiency of the organism as a whole and tooth decay.¹² The diet be perfect and yet the teeth carious due to digestive, absorptive, and internal disturbances.

All the specific nutritional elements must be ingested as such or formed in the gastrointestinal tract from ingested food. The vitamins and mineral salts are taken in preformed while other elements represent altered food constituents. The formation, absorption or use of specific nutritional elements in the body is influenced greatly by numerous conditions, i.e., in-

sufficient intake, absence of some factor necessary for the formation of a specific nutritional element for food, excessive loss of gastrointestinal contents by vomiting or diarrhea, increased need in states of overactive metabolism, presence of a toxic state impairing absorption and utilization as in chronic infections, achlorhydria which affects absorption or production of specific factors from food, lowered metabolism in which tissues are working at an abnormally low speed, disturbed circulation.

Even under normal conditions the individual variations of metabolic efficiency explains in part the fact that under similar diets of borderline inadequacy some children are protected from caries and others are not. This is not only reflected in caries but as well in the composition of the teeth. Bowes and Murray¹⁸ have shown that the enamel decreases in the apatite content from ninety-two to eighty-six per cent with a corresponding increase in the phosphorus content with deprivation of mineral retention.

In cyclic vomiting there is a disturbance in the acid-base metabolism characterized by periodic vomiting, acidosis, and shock. The blood shows a low sugar, pH and CO₂ content. The urine is concentrated containing considerable acetone, diacetic and betaoxybutyric acid which cannot be ascribed to starvation. The two children reported were both allergic, the offending foods were eliminated and subsequently placed on a base-forming dietary with a minimal amount of acid-forming foods.

In celiac disease there is infantilism resulting from fat, carbohydrate, and mineral intolerance. Fats are digested but not absorbed and hence excreted in abnormal amounts as fatty acids and soap. Carbohydrates are not tolerated interfering with the assimilation of fat and giving rise to excessive fermentation of sugar and tympanitis. Mineral elements are not retained as a result of a growth defect and the absorption from the alimentary tract. Proteins are well-tolerated and constitute the essential part of the dietary in the initial treatment of the disease. Nevertheless the child may be maintained on a complete dietary or synthetic supplements of nutrient essentials.

In alimentary allergy the periodic in-

TABLE VI—HIGH CALCIUM DIET

Age 12 years		Calories 2400	
Calcium 1.9 gms.		Phosphorus 2.2 gms.	
Protein 80 gms.	Fat 117 gms.	Carbohydrate 259 gms.	
Food	Amount	Ounces	Phosphorus
Breakfast			
Figs, fresh stewed.	4 lg	7½	052
Roll'd oats	½ c.	1 dry	021
Egg soft cooked	1	1½	040
Bacon	2 st.	4	002
Bread, brown	1 sl.	1	039
Milk.	1 c.	8	288
Apple	1 med	3½	007
Cod liver oil	1 T	½	012
Dinner			
Soup			
Celery	3 T	1½	039
Boiling water			019
Butter	½ T	½	002
Flour	½ T	½	001
Milk	½ c.	4	144
Swiss chard	4 r T	2	100
Potato, baked	1 med.	3½	014
String beans	4 r T	2	028
Bread, brown	1 sl.	1	039
Butter	1 pat	½	002
Milk	1 c.	8	288
Orange	1 med	3½	045
Cod liver oil			021
Supper			
Salad.			
Cheese, cottage	4 T	2	150
Dates, dried	6 sm.	1	026
Pineapple fresh	1 sl.	3½	018
Lettuce	5 L.	1½	022
Cream, heavy			021
whipped	4 T	2	052
Bread, brown	2 sl.	2	078
Butter	1 pat	½	002
Milk	1 c.	8	288
Almonds	20	½	048
Pear	1 sm.	3½	015
Cod liver oil			026
		1 9	2 2

TABLE VII—HIGH RESIDUE DIET

Age 12 years		Calories 2400	
Calcium 1.7 gms.		Phosphorus 1.8 gms.	
Protein 84 gms.	Fat 102 gms.	Carbohydrate 268 gms.	
Food	Amount	Ounces	
Breakfast			
Peaches cooked	2 lg h.	3½	
Wheat, cracked	3 T	1	
Milk	½ c.	4	
Toast, w. w., stale	1 sl.	1	
Milk, raw	1 c.	8	
Pear fresh	1 sm.	3½	
Cod liver oil	1 T	½	
Dinner			
Okra, cooked	½ c.	3½	
String beans	½ c.	3½	
Carrots	½ c.	3½	
Potato baked	1 med.	3½	
Muffin, soy bean	1	2	
Milk, raw	1 c.	8	
Figs, dried	4 sm.	3½	
Butternuts	7	½	
Apple	1 med	3½	
Supper			
Mixed Salad			
Pears, cooked	2 r T	1½	
Celery raw	4 st	3½	
Walnuts	6	1	
Lettuce	5 L.	1½	
Almonds	30	1	
Crackers, graham	4	1	
Milk, raw	1 c.	8	
Orange	1 med	3½	

equivalent with each meal and by irradiation with ultraviolet light daily

There is some danger in feeding excessive amounts of calcium to children who do not require that amount. Although excessive intake will be excreted and not be absorbed the calcium in the alimentary tract will precipitate the phosphate and prevent its absorption thus interfering with the calcium-phosphorus metabolism. Masaki found that the calcification of the teeth depended upon the calcium-phosphorus ratio in the diet. Klein and McCollum¹⁷ found that low phosphorus diets favor susceptibility to caries. Animals fed on a low calcium-high phosphorus diet developed teeth properly calcified, but nevertheless free from caries. Klein¹⁸ also found that a high calcium-low phosphorus diet results in caries. Little consideration was given to the phosphate intake in the diet because it is available in adequate amounts in most foods provided its utilization is not diminished by excessive calcium compound administration.

4 Vitamin D Thirty-three of the caries-susceptible group showed some inadequacy in the daily vitamin D intake, either because of an insufficient intake or the ingestion of irregular amounts, or the use of unstandardized oils. Only ten of the caries-immune group were taking more than the required amount of vitamin D per day. Since no foods are rich in vitamin D, and egg yolk is the only important food source with lesser and variable amounts present in butter, cream, and milk, the children's diets were reinforced with synthetic sources of vitamin D. They were given concentrated sources of vitamin D, viosterol, irradiated concentrate made from halibut or cod-liver oil, vitamin D milk, and daily irradiation with ultraviolet light. We avoided overdoses of vitamin D not only because they diminish the appetite, but caused some of the children to be irritable, and produced allergic manifestations in others.

Mellanby prevented caries by the addition of fat-soluble vitamin particularly vitamin D in the normal diet of children. The Medical Research Council¹⁹ reports show that a high vitamin D content of the food tends to diminish caries incidence if given during the development of the teeth. MacBeath²⁰ found dental caries eight times more active in children not receiving ultraviolet irradiation than in the control group. The size of the dose of the cod-liver oil was found to be directly proportional to the degree of reduction of caries. Doses of three hundred units were more effective than those of one hundred and fifty units.

5 Vitamin A A relatively insignificant number of children revealed vitamin A to be

strated to produce caries either locally or systemically, the Bunting school¹⁸ has nevertheless correlated the carbohydrate content of the diet with the occurrence of *B. acidophilus* as the local etiological factor. Growth of the acidophilus of the mouth is extremely sensitive to carbohydrate in the diet as evidenced by the rapidity with which changes in the flora of the saliva takes place. The counts of acidophilus cultures actually increase or decrease within twenty-four hours paralleling the change in the carbohydrate, especially sugar above and beyond the adequate diet. Mellanby maintained that oatmeal contains a toxic factor which is productive of dental caries. Actually carbohydrates are harmful only when they comprise such a large proportion of the diet that inadequate amounts of other foods containing minerals and vitamins are taken.

We have given due credence to the carbohydrate content of the diet by diminishing it in the daily regime of the caries-susceptible children. The adequacy of the diet was assured by a glass of milk and a serving of raw or cooked food or both with each meal, servings of leafy and root vegetables with two, meals, egg, if tolerated, with one meal and meat fish or fowl with another, butter with each meal, and a teaspoonful of cod-liver oil with each meal. The additional foods were optimal with no food except fruit juices between meals. The use of coarse, fibrous, detergent foods was advocated for both masticatory and gingival stimulation. Anticonstipative drugs were contraindicated, particularly milk of magnesia which tends to produce decalcification by replacing the calcium content of the tooth with magnesium.

2 Minerals Of the one hundred children observed in each group forty-three with caries-susceptibility had been maintained on an acid-forming diet while forty-five caries-immune were on an alkaline-forming diet. It is rather significant that about two-thirds of the group whose relationship to caries was essentially nutritional should be so equally distributed with respect to a favorable or unfavorable mineral content in the dietary. The preponderance of milk, fruit, and vegetables in the dietary, alkaline-forming factors, is apparently effective in the arrest of caries. This parallels our previous observations¹⁴ as well as the work of Martha Jones¹⁵ who prevented tooth destruction or odontoclasia on a diet high in potential alkalinity, an excess of about forty cc of normal solution per day.

The children with caries were accordingly maintained on an alkaline-forming regime making each meal excessive in potential

alkalinity. The needlessly large amounts of cereal, meat, fish, egg, and cheese were displaced by milk, fruit, and vegetables. The alkaline-forming Mead's cereal and pabulum displaced oatmeal and other cereals, muffins of lima bean flour, raisins, dates, etc. replaced acid-forming bread, potatoes were substituted for rice and macaroni, fruit juices were offered between meals. Mild alkaline mouth washes were used after each meal.

3 Calcium Of the one hundred caries-susceptible children only twenty-two showed a diminished intake of calcium in the daily dietary while twenty-nine of the caries-

TABLE V—LOW CARBOHYDRATE DIET

Food	Age 6 years		Calories 1500		Carbohydrate dral (Gms.)
	Calcium 14 gms.	Protein 61 gms.	Phosphorus 14 gms.	Carbohydrate 100 gms.	
	Amount		Ounces		
Breakfast					
Orange juice	1 c.		4		14
Egg soft, cooked	1		1½		
Bacon	1 st.		1		
Oatmeal muffin	1		1		3
Butter	1 pat		½		
Milk	1 c.		8		12
Cod liver oil	1 T				
Dinner					
Meat, boiled	sm. serv		2		
Swiss chard	4 T		2		3
Carrots	4 T		2		4
Potato mashed	4 T		2		12
Oatmeal muffin	1		1		3
Butter	1 pat		½		
Milk	1 c.		8		12
Pineapple fresh	1 sl.		3½		10
Supper					
Cheese cream	½ cake		½		
Celery	2 st.		1½		2
Lettuce	1 sl.		1½		1
Salad oil	2 t		½		
Bran wafers	ad lib				
Butter	1 pat		½		
Milk	1 c.		8		12
Orange	1 med		3½		12
					100

immune group appeared to take an excessive amount of calcium in their dietary. Thus about a third of the nutritional group showed some relation to calcium metabolism. The ratio is small but yet significant in the management of caries.

The diets of the children with low calcium intake were increased with sources of calcium by adding milk, cheese, leafy vegetables, especially turnip tops, water cress, and almonds. In most cases the problem was more of increasing the absorption of calcium from the food rather than increasing the total calcium intake. This was effected in the caries-susceptible children by offering buttermilk or lactic acid milk to favor the solution of calcium salts, by calcium diphosphate in acid fruit juices between meals by larger doses of 10 D cod-liver oil or its

tee against caries Klein and McCollum²⁰ found that coarse particles, lodged in crevices of the teeth, give rise to fermentation while the finely pulverized diet was readily washed away by the saliva Benst²⁰ showed that the self-cleansing properties in the mouths of children was preventive of caries It has been noted that fever patients are liable to an accumulation of sordes on the teeth due to the reduction of the flow of saliva with a consequent dry mouth Schnak²¹ cites a highly fermentable carbohydrate—Hawaiian food-stuff, poi, which is cohesive in the mouth and never clings to the teeth Hawaiian children have little dental caries It thus seems indisputable that sticky food of a fermentable nature clinging about the teeth and areas of stagnation is an important predisposing cause in the formation of caries It produces an acid tending to decalcify the enamel of teeth which are not immune to caries and lays them to attack by the exciting cause the B acidophilus organism

Proper masticatory stimulation is indispensable in the management of the child's oral hygiene Solid food should be introduced early in infancy to compel mastication, and the earlier the child is weaned from strained foods the better for the health of the teeth He should be taught to massage his teeth by chewing coarse food which favors secondary dentine deposit Breeze²² has demonstrated that trauma acts as an irritant to cause sclerosis of the teeth Coarse food scours tooth surfaces and the resistance to caries parallels the extent of sclerosis Nasal breathing should be maintained free in order to encourage proper chewing Food should not be washed down with milk but chewed, bread soaked in milk should be avoided

The work done by the teeth from day to day should be about the same, otherwise it lays the teeth open to decay²³ If the food is hard it should always be hard, if soft it should always be soft, the tendency being to shift it in the direction of fibrous food The transition from hard to soft food is dangerous but not the converse Fibrous foods consist of bacon, fish, meat and poultry, raw vegetables, lettuce, water cress, radishes, celery, stale bread toasted or twice baked, raw fruits This is in contrast with biscuits bread

cake, puddings, preserved fruit, jams, marmalades, syrups, chocolate, honey or cocoa There is universal agreement about the work to be done by the teeth which if inhibited is productive of decay

Oral cleanliness is of prime importance in controlling caries in children It reduces fermentation around the teeth which delays decalcification Dentrifices have little effect from chemical action in the prevention of decay Their only value lies in aiding to remove physically the bacterial accretion Detergent foods are not specific for immunity other than increasing the local cleansing of the teeth Drastic chemicals should not be used for tooth cleansing because they weaken the natural protection of the saliva Simple saline or precipitated chalk may be used as tooth powder

Conclusions

1 One hundred well children susceptible to caries were compared with an equal number relatively immune, in terms of constitutional, endocrine, metabolic, nutritional, and oral factors

2 Seven percent of the children studied had a familial susceptibility to caries while nine percent had an individual immunity The caries-susceptible children showed teeth with steep cusp-inclines and food-impacting areas paralleling the tooth structures inherited from one of the parents Susceptibility or immunity to caries of some children may be explained on the basis of Mendelian segregation

3 Ten percent of the children with chronic caries were observed in hypothyroidism, hyperthyroidism, hypopituitarism, and hyperparathyroidism in contrast with eight percent immune in adiposogenitopituitarism, hyperpituitarism, and hyperthyroidism respectively Tooth decay was not arrested until the endocrine disturbances were corrected

4 Twelve percent of the children with caries had metabolic disorders—cyclic vomiting, celiac disease, alimentary allergy, epilepsy, and chronic sinusitis in contrast with eight percent immune in diabetes and hemophilia respectively Tooth decay was not arrested until the metabolic conditions were alleviated, for that which is absorbed and utilized rather

a clinical factor in caries. Five of the caries-susceptible children showed a diminished intake in vitamin A while thirteen of the caries-immune were ingesting vitamin A in relatively excessive amounts. Vitamin A was readily reinforced in the dietary of children with dental caries by means of halibut liver oil without resorting to special food sources. Since the children with caries naturally fell into the group who received an inadequate intake of vitamin D there was no necessity of making special provisions for increased intake in vitamin A.

It has been amply shown that vitamin A is necessary in the synthesis of the soft dental tissues. Boyle found that lack of vitamin A leads to defectively calcified dentine and hypoplastic teeth. Mellanby and King²¹ found degeneration of the dental nerves with experimental animals fed on vitamin A deficient diets. Smith and Land found that vitamin A deficiency in animals caused dull white incisors subject to excessive abrasion which was preventable by the daily administration of cod liver oil.

6 Vitamin C. Twenty-four of the caries-susceptible children showed a diminished intake in vitamin C while forty-seven caries-immune children apparently ingested excessive amounts of vitamin C. Children with dental caries had their diets reinforced for vitamin C by increasing the amounts of fresh, raw and canned fruits and vegetables, particularly orange, tomato, and pineapple juices, salad greens, celery, raw cabbage, and carrots. There was no need for the therapeutic administration of ascorbic acid.

It has been amply demonstrated that vitamin C is necessary for the formation and maintenance of pulp and pericementum. Robb²² showed that the odontophores are affected in vitamin C deficiency. Rosebury²³ found that a vitamin C-free diet results in changes in the pulp and dentine molars. Hess,²⁴ however, considered that scurvy was not an important causal factor of dental caries which is present in marked degree where fruits and vegetables are in greatest abundance and least prevalent in countries, such as Alaska, where antiscorbutic foods are scarce. Hanke²⁵ and Harris²⁶ independently found that deficiency in vitamin C is a contributing cause of dental caries.

V. Oral Factors

Seven of the caries-susceptible children showed local factors that were determining in the causation of decay, while nine of the caries-immune group practiced such superb mouth care that it was considered primary in the maintenance of

dental health, all systemic factors being borderline with respect to dental structures. Two children ingested an excessive amount of sugar between meals with consequent acid formation, one massive amounts of acid fruit juices between meals and at bedtime with resultant recalcification revealing smooth yellowish surfaces from the minimal amounts of available salivary secretion, four showed complete lack of mouth care. Once these local conditions were corrected, dental caries was arrested within a month of the initiation of proper therapeutic procedures. Excessive ingestion of readily fermentable carbohydrate, especially sugar, favors the growth of acid-forming bacilli. But the presence of these organisms in the mouth alone is not sufficient to result in tooth decay. It must be in contact with certain areas of the tooth not cleansed by saliva, and the presence of sugars in the inaccessible areas of tooth surfaces provide the most favorable medium for the growth of the *BB acidophilus*. MacIntosh²⁷ has shown that lactobacilli tend to destroy teeth in the caries-susceptible but are absent in the mouths of those immune to caries. The oral flora is thus an important factor, for acid organisms decalcify regardless of the quality of the tooth structure. In most instances decay may be inhibited by decreasing the carbohydrate in the dietary. Boyd did not find that sugars are detrimental to teeth, nor did Schoental. But Bunting suggests a possible immunological factor antagonistic to the *B acidophilus* organism in the blood of the caries-free individual in whose mouths the *B acidophilus* does not exist, and when planted therein, promptly disappears.

Mouth fermentation can be readily prevented by diminishing the non-detergent carbohydrate such as soft bread, cake, cereal, malted milks, sticky foods, excessive sugars and starches both with and between meals. Stagnation of food can be prevented by the use of fibrous foods after each meal using raw fruit instead of sweet desserts.

Caries is preventable by choosing suitable food and thus keeping the teeth free from stagnant debris. Hoppert²⁸ demonstrated that the size of the food particles affected the incidence of caries and that a chemically adequate diet is no guaran-

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SULPHANILAMIDE

Report of a Case

JOSEPH MILLETT, B S, M D, *Hempstead*
Resident Physician, Meadowbrook Hospital

Pneumococcus Type 3, formerly called the Streptococcus Mucosus, has generally been recognized as producing lobar pneumonia of marked severity. The death rate for Type 3 pneumonia is much affected by age, and is the incidence of chronic systemic disease, whether occurring in the old or young. The death rate in patients under forty is approximately twenty per cent, over sixty years 65.4 per cent. In patients without systemic disease the death rate is 32.1 per cent, with systemic disease 53.6 per cent.¹ Cecil, Baldwin, and Larsen² found that Type 3 pneumonia ran, on an average, a somewhat longer course than either Type 1 or 2 infections.

There were eleven cases of Type 3 pneumonia (excluding the present reported case) seen at the Meadowbrook Hospital this past winter in adults. Seven lived and four died. Six cases were uncomplicated, while the seventh developed an empyema which came to rib resection. The longest stay in the hospital was ninety-six days, the case that came to surgery, while the shortest was eight days, the latter patient having been in bed at home two weeks before admission. The average stay for all seven cases was thirty-three hospital days, excluding the empyema the average stay for the uncomplicated cases was twenty-two days. This did not compare with our results in serum-treated, uncomplicated Type 1 (12 cases) cases treated this winter, whose average stay was eleven days, and the uncomplicated, non-serum treated Group 4 (10 cases) whose average stay was 10.5 days. (Group 4 cases were those who had pneumococci that showed no capsule swelling with 1, 2, 3, 5, 7 and 8 antisera.)

The following is a resume of the twelfth case of Type 3 pneumonia admitted to the Medical service late in April.

Case Report

F S., thirty-two year old white male, salesman by occupation, was admitted to the

Meadowbrook Hospital with the complaints of pain in the left chest aggravated on breathing, and cough with slight expectoration. He stated that about one week before admission he had a cold. Forty-eight hours before admission he had definite malaise accompanied by generalized aches and pains and felt feverish. The next day he vomited twice, had several severe shaking chills, began to cough and have pain in his left chest anteriorly. He was seen by his physician on the morning of the day of admission and hospitalization advised.

Past history revealed the usual childhood diseases, chorea, and a history of epigastric pain relieved by food and alkalis, and occasional tarry stools in the past two years. Appendectomy was done nine years ago.

Physical examination revealed a thin, undernourished white male, acutely ill, with lips and fingertips cyanotic. The temperature was 104.2 (R) P 120 R 32. The pharynx was acutely injected. There was a short, dry cough. Examination of the chest revealed impairment over the left upper lobe with bronchovesicular breathing. The rest of the examination was negative.

A blood culture was taken which proved to be negative. The urine concentrated well and showed a faint trace of albumin. The Hb was eighty per cent Sahli and the white count was 43,600, ninety-seven per cent of which were polys. The sputum showed many Type 3 organisms.

Clinical course The patient was put on sulphanilamide grams one (grains 15) q 3 h on the third day. The next morning there were signs of frank consolidation in the left upper lobe with bronchial breathing and whispered pectoriloquy. An x-ray taken at this time confirmed the diagnosis. Thirty-one hours after the institution of sulphanilamide therapy the temperature had dropped from 104.2 to 99.4 (R) after the administration of ten grams (150 grains) of the drug by mouth. For the next two days the temperature averaged 100 (R) and then dropped to normal. Sulphanilamide was continued until another fifteen grams (195 grains) had been given, a total of twenty-five grams in about 3½ days. (Chart I.)

The only untoward effect noted was a moderate cyanosis of the lips which persisted until discharge, on the morning of the tenth day.

than that which is offered, is significant in resistance to decay

5 Sixty-four percent of the children with caries were on suboptimal nutrition in contrast with sixty-six percent who were resistant to caries on the basis of satisfactory nutritional intake. The dietary deviations in carbohydrate, acid-base ash, calcium, and vitamins A, C, and D were corrected and the caries arrested within

three months in sixty-five percent of the children

6 Seven percent of the caries-susceptible children showed local factors causing decay while nine percent of those resistant to caries practiced excellent mouth care, systemic factors being borderline with respect to caries

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References

- 1 Mellanby, M *Brit Dental J*, 48 737, 1927
- 2 Rich, C *J Am Dent Assn*, 22 1592, 1935
- 3 Toverud and Toverud *Int J Orthod*, 19 91, 1933
- 4 Bunting, R. W. *J Dent Research*, 14 93, 1934
- 5 Jay *J Ped*, 8 733, 1936
- 6 Hess, A. *Dental Cosmos*, 74 1053, 1932
- 7 Bloom *J Am Dent Assn*, 23 1332, 1936
- 8 Boenheim *Zahnarzt* No. 9, 1927 No 32, 1928
- 9 Brodtbeck *Schwed. Vjskr. Zahnheilk* 27 61, 1917
- 10 Mayerhofer *Erg Zahnheilk*, 4 144, 1914
- 11 Parhon, C *Les secretions, internes*, Paris, 1919
- 12 Boyd, Drain, and Stearns *J Biol Chem*, 106 327, 1933
- 13 Boyd *J Am Dent Assn*, 22 155, 1935
- 14 Bowes and Murray *Black J*, 30 977, 1936
- 15 Kugelmass King, and Boedecker *J Am Dent Assn*, 21 110, 1934
- 16 Jones M. *Dental Cosmos*, 76 395, 1934
- 17 Koehn, M. *Am J Dis Child*, 48 6, 1934
- 18 Klein and McCollum *J Dent Res*, 12 524, 1932
- 19 Klein, H. *J Am Dent Assn*, 19 903, 1932
- 20 G. B. Med. Research Council Bull., 140, 153-191, 1929-34
- 21 McBeath *Am J Pub Health*, 24 1028, 1934
- 22 Mellanby and King *Brit Dent J*, 66 538, 1934
- 23 Robb, Medes, McClendon, Graham and Murphy *J Dent Res*, 3 29, 1921
- 24 Rosebury and Karshan *Ibid* 11 149, 1931
- 25 Hess and Abramson *Dent Cosmos*, 73 849, 1931
- 26 Hanke, M. T. *J Am Dent Assn* 17 957, 1930
- 27 Harris, L. J. *Brit Med J* 1 36, 1933
- 28 McIntosh *Brit J Exp M*, 3 138, 1922
- 29 Hoppert, Weber and Canniff *J Dent Res*, 12 161, 1932
- 30 Klein and McCollum *Ibid*, 13 69, 1933
- 31 Benst *Ibid* August, 1931
- 32 J. Am Dent Assn, 19 62, 1932
- 33 Breeze, F. *Brit Dent J* 66 120, 1914
- 34 Kugelmass, I. N. *Int J Orthod* 5 490, 1936

OPIUM UNDER JAPANESE RULE

An important side-light on Japan's occupation of more and more Chinese territory is given in a recent report of the Opium Advisory Committee of the League of Nations, made before the present hostilities began. In the provinces now subject to Japanese influence the systematic increase of poppy cultivation and of the sale of opium is stated for the past year to have "attained alarming proportions." Illicit traffic in opium, morphine, and heroin is rapidly increasing in Manchuria and Jehol and is

encouraged as a fruitful source of revenue. It was estimated that 500 kilograms of heroin were exported each week from Tientsin and that ninety per cent thereof went to the United States. Canada also is suffering from this flow of narcotics from the Far East to the Pacific coast, and there has been no improvement during the last twelve months. The Advisory Committee recorded its alarm at the situation in the Chinese provinces under Japanese jurisdiction as constituting a real danger to the whole world.

The course of medical lectures for practicing physicians on diseases of the heart inaugurated last year proved so successful that the New York Heart Association of the New York Tuberculosis and Health Association has planned a second series during the fall and winter months. A series of twelve afternoon lectures will start November 9 and will be held at bi-weekly intervals up to and including April 26, 1938. The course is endorsed by the New York Academy of Medicine.

The course will be open to all practicing physicians without registration or admission

fee. The course is designed to give the general practitioner a better understanding of problems pertaining to the treatment of certain types of heart diseases. For the convenience of physicians residing outside of Manhattan, two of the lectures will be given in Brooklyn and one in the Bronx.

The first lecture will be on "The Management of Patients with Heart Disease" by Dr. Irving Roth on November 9 at 4:30 p.m. in the Mount Sinai Hospital, New York City. Other lectures in the course to be given by leading heart specialists will be announced later.

ganisms as well, and concluded that the degree of protection with one strain of meningococci (Type 2) was of the same order as with streptococci. Proom,³ working only on meningococcus infections of mice, found that the early administration of para-aminobenzenesulfonamide prevented the development of septicemia and death in animals so infected, and that it protected equally well against strains belonging to Groups I and II.

The only literature we have been able to find dealing with the treatment of meningococcus infections in human subjects with this drug, is the recent preliminary report of Schwentker, Gelman, and Long.⁴ These workers give a brief summary of their results in treating ten cases of meningococcus meningitis, and one of meningococcemia without meningitis. They conclude that the response to treatment was good in all patients, and quite comparable to that produced by specific antiserum.

It may be of interest therefore to report in detail two cases of meningococcemia successfully treated with sulfanilamide and its derivative prontosil. The first case is of special interest in as much as the patient had been ill with a high fever for more than seven weeks when this form of therapy was instituted. During this time he had three distinct episodes of meningitis, and had been treated with large amounts of meningococcus antitoxin and antiserum intravenously, intramuscularly, and intrathecally, without any apparent effect on the course of his blood stream infection. He had become extremely sensitive to both antitoxin and antiserum so that even the smallest amount of either given intravenously resulted in the severest kind of allergic reaction. He was in very poor condition in spite of three supportive blood transfusions, and it seemed inevitable that he would succumb to the malignancy of his infection. The prompt drop in temperature and almost immediate general improvement which ensued with sulfanilamide therapy is therefore all the more impressive. The second, a typical case of subacute meningococcemia without complications, would have been treated with large amounts of anti-meningococcus serum intravenously, but coming soon after our experience with the other, we were encouraged to try

sulfanilamide and again with spectacular success.

Case Reports

CASE 1 W. W., a white male, aged thirty-seven, a foreman in the Department of Sanitation, was admitted to Morrisania City Hospital on January 10, 1937, complaining of chills and fever of six days duration. His past history was as follows. He had pneumonia in 1922, an appendectomy followed by pneumonia in 1924, and scarlet fever in 1935. Six days before admission he awoke in the morning with chills, followed by fever, and a temperature of 104°F. He did not have a cold, or any upper respiratory symptoms, prior to, or at the time of onset. He did recall having noticed a red "spot" on his right forearm, similar in appearance to the generalized eruption he later developed, the day before. The day following onset all his symptoms disappeared and he felt quite well. Three days before admission the fever and chills returned, this time accompanied by pain in the lower extremities. On the day of admission he complained of a severe headache and vomited, a rash appeared over his trunk and extremities. Then he became unconscious.

Physical examination disclosed a well-developed and well-nourished white male, acutely ill, semicomatose, perspiring profusely, with a temperature of 105°. The nose and throat were normal. His pupils were equal and regular, and reacted well to light and accommodation. There were no ocular palsies. The neck was rigid. The lungs were clear. The heart was not enlarged, there were no thrills or murmurs. His blood pressure was 114/74. The spleen and liver were not palpable. The Kernig and Brudzinski signs were positive bilaterally, and the knee jerks and ankle jerks diminished. There were petechiae and hemorrhagic maculopapular lesions scattered over the trunk and extremities.

Laboratory findings. The urine was normal except for a faint trace of albumin. The blood count showed 4.14 million erythrocytes, with a hemoglobin of ninety per cent, 14,600 leukocytes, with a differential of seventy-eight per cent polymorphonuclears and four per cent stab forms. Chemical examination of the blood showed a sugar of ninety, and urea N of 16. Blood Wassermann and Kahn tests were negative.

Spinal puncture was performed immediately, and twenty-five c.c. turbid yellow fluid, under an initial pressure of twenty-five cm. of water, removed. Examination of this fluid showed the globulin to be increased and sugar absent. There were 3,400 cells per cmm, all polymorphonuclear leukocytes. A smear revealed the presence of oc-

Discussion

At the present time there is no specific horse serum available for Type 3 pneumonia. Immunity against Type 3 pneumococcus is difficult to acquire either by artificial or natural methods.^{3,5} Convalescent serum has been tried,⁶ as has transfusion with blood from donors who had been immunized against pneumococcus Type 3.⁷ The use of an enzyme (enzyme of Avery)^{8,9} which destroys the specific carbohydrate in the capsule of the Type 3 pneumococcus has shown distinctly curative properties in experimental animals.

Domagk¹⁰ first introduced para-aminobenzene sulfonamide and its derivatives as chemotherapeutic agents against the hemolytic streptococci with marked success. Buttle et al.¹¹ studied the effects of para-aminobenzene sulphonamide on Types 1 and 2 pneumococcal infections in mice without any marked results except to delay their death by a few days. Rosenthal,¹² however, found that sulphanilamide had distinctly curative effects on mice in-

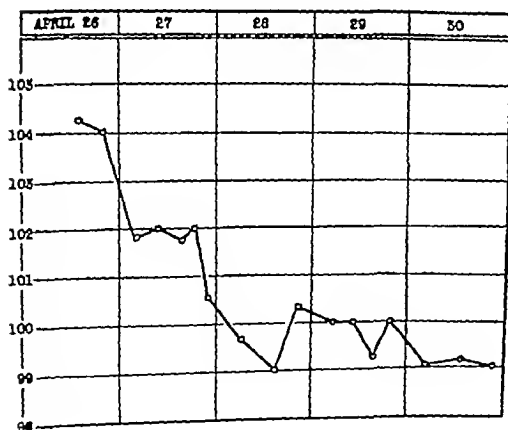
noculated with Types 1, 2, and 3 and that it was bactericidal and bacteriostatic to pneumococci type 1, 2, and 3 in high dilutions *in vitro*.¹³

The exact mechanism of the action of sulphanilamide against the pneumococcus is unknown. That it attacks the capsule of pneumococcus is the most likely possibility. The literature on experimental and clinical data concerning the action of these compounds in pneumonia is at present very meager, but most likely will not remain so. In view of the general experience with type 3 pneumonia, and the lack of a specific means of attacking this disease, it would be well worth while to use these apparently nontoxic organic compounds.

Summary

A case of Type 3 pneumococcus pneumonia, involving one lobe, and only twenty-four hours after onset, is presented after having a crisis induced by sulphanilamide given by mouth. It is recommended that the drug be given an extensive clinical trial in Type 3 pneumonia.

CHART I



References

- 1 Cecil R. L., Plummer N. and McCall M. A. *J. Med. Sci.*, 191 305, 1936.
- 2 Cecil, R. L., Baldwin H. S., Larson, N. P. *Arch. of Int. Med.* 40 253, 1937.
- 3 Cecil R. L. and Steffen G. I. *J. Exp. Med.*, 38 149, 1923.
- 4 Ross V. *Proc. Soc. Exp. Biol. and Med.* 24 697, 1927.
- 5 Cecil R. L. and Austin J. H. *J. Exp. Med.* 28 19, 1918.
- 6 Beebe, R. T. and Suttiff W. D. *N. Eng. J. Med.* 203 823, 1930.
- 7 Barach, A. L. *A. J. Med. Sci.* 182 811, 1931.
- 8 DuBos, R. and Avery O. T. *J. Exp. Med.* 54 51, 1931.
- 9 Avery, O. T. and DuBos R. *Ibid.*, p. 73.
- 10 Domagk. *Deutsche Med. Wchnschr.* 61 250, 1935.
- 11 Buttle G. A. H. et al. *Lancet* Vol. 1 No. 12 p. 681, 1937.
- 12 Rosenthal S. M. *Public Health Reports* 52 48, 1937.
- 13 Idem. *Ibid.* 52 192, 1937.

MENINGOCOCCEMIA

Treatment with Sulfanilamide and Prontosil—Report of Two Cases

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Chemotherapy in the treatment of bacterial infections received a new impetus when Domagk,¹ in 1935, described the efficacy of prontosil, a derivative of sulfanilamide (para-aminobenzenesulfon-

amide), in protecting mice against infection with hemolytic streptococci of human origin. Buttle, Gray, and Stephenson² in confirming this work, experimented with this therapeutic effect on other or-

palpable. The knees and ankles were tender and slightly swollen but not red or hot to the touch. The Kernig and Brudzinski signs were both absent. Soon after admission, the house physician noticed and brought to the patient's attention a rash of which he was not aware. This consisted of a maculopapular eruption, slightly tender to the touch, scattered over the chest and all the extremities.

Laboratory findings The urine was normal except for a trace of albumin. The blood count showed 18,500 leukocytes, seventy-seven per cent of which were polymorphonuclears. Hemoglobin was eighty-five per cent. Chemical examination of the blood revealed eighty-five mg of sugar per 100 c.c., and a urea N of 17. Wassermann and Kahn blood tests were both negative. An electrocardiogram revealed no abnormality. Blood cultures taken on March 17 and 19 were both reported positive for the meningococcus. The organism was further classified as a Group III meningococcus by the Meningitis Division of the New York City Health Department.

Course The patient ran a septic temperature for eight days, his general condition remaining unchanged. At no time did he show any signs or symptoms of meningitis, so no spinal tap was done.

On March 20 treatment was begun with sulfanilamide and protosil. During the next forty-eight hours he received 5.2 grams (80 grains) of sulfanilamide, and 100 c.c. of protosil. During the succeeding six days he received 0.65 grams (10 grains) of sulfanilamide three times a day. Approximately sixty hours after the onset of treatment, the temperature fell abruptly to normal and remained so for the rest of his stay in the hospital. Subjective improvement began promptly with the subsidence of temperature. No new skin lesions were observed following the first twenty-four hours of treatment, and the arthralgias disappeared permanently and completely at the same time. A blood culture taken then was reported negative.

Comment

In view of the small number of reported cases of meningococcus infections treated successfully with sulfanilamide, it is much too early to reach any definite conclusions as to the therapeutic merits of the drug in such conditions. Furthermore, nothing as yet is known of the possibility of delayed toxic effects following its administration. Immediate complications, occurring during the course of treatment, such as cyanosis, nausea,

acidosis, dyspnea, and morbilliform eruption have been described, but these have all promptly cleared with cessation of therapy. Our own two cases showed no ill effect from the drug during its administration and the following period of observation. From the results thus far obtained, it would seem that sulfanilamide in the treatment of meningococcus infections is worthy of further trial in well-controlled clinics. Certainly, it appears to be indicated in cases of prolonged meningococcic septicemia, which have become sensitized to all forms of serum therapy, rendering further treatment with this medium impossible, as occurred in Case 1. Should future experience with sulfanilamide prove it harmless, and of consistent value in treating infections caused by the meningococcus, its superiority to the present mode of therapy with antiserum and antitoxin will be manifest. In the first place, even cases treated successfully with antiserum and antitoxin frequently develop severe serum sickness during or soon after treatment. Thus, recently, a case of uncomplicated meningococcemia, very similar in its course to Case 2, was treated on this service by the administration of 150 c.c. of meningococcus antiserum on two consecutive days. The serum was given by slow intravenous infusion, well-diluted with normal saline. On the third day, the patient developed a terrific serum reaction with giant urticaria, extremely painful joints, generalized adenopathy and a temperature ranging above 104° . This persisted for an entire week although no further serum was given. At the end of that time the blood culture was sterile and the patient convalescent. However he had been far sicker with the serum reaction than with his original illness. Secondly, the risk of sensitizing the patient to future administration of horse serum is obviated, a distinct advantage when one considers the multiplicity of purposes for which such sera are employed today.

Still another advantage is the promptness and completeness of the therapeutic response, at least as evinced by our cases. Meningococcemia is a disease notorious for the frequency and seriousness of its complications, which include meningitis, endocarditis and arthritis. Appelbaum³ recently reported on a series of fifteen

casional intra- and extracellular Gram negative diplococci

Course Treatment was begun immediately with meningococcus antitoxin intrathecally and intravenously. Two days later, (January 12) the patient developed a serum rash, but treatment was continued without interruption. Three days later, a spinal tap was reported as clear and having only fifteen cells to the cu mm, sugar was absent. His high temperature continued unabated, however, and his general condition was unimproved. On January 17 he developed a very severe serum reaction. His body was covered with huge wheals and his face was swollen. He vomited and complained of dimness of vision. Examination of his fundi revealed blurring of the optic disks. Spinal tap that day, however, showed the fluid to be still clear and with only sixteen cells, although sugar was absent. Because of these findings, his signs and symptoms were believed due to edema of the brain brought on by the violence of his allergic reaction, rather than to a recrudescence of his meningitis.

On January 18, and again two days later the blood culture was reported positive for the meningococcus. To combat the septicemia (on the latter date), intravenous therapy with antitoxin was again attempted. The antitoxin was administered by slow intravenous infusion, well-diluted by saline. When only 15,000 units had been administered, the patient developed a terrific serum reaction, with a severe chill and giant urticaria, and treatment had to be stopped.

At this point, antiserum was substituted for antitoxin. The results were disappointing, for he proved to be just as sensitive to the antiserum as he had been to the antitoxin. On January 25 he was given a blood transfusion of 350 c.c. in an effort to improve his general condition, which was quite poor by this time.

Two days later, he again developed symptoms of meningitis, and spinal tap done that day showed the presence of a cloudy fluid with a pressure of thirty-two cm. of water, 22,000 cells, and a few Gram negative diplococci. The meningitis was treated with antiserum intrathecally, which he tolerated fairly well, and the spinal fluid cleared up in a week. The blood culture remained positive, the temperature high, and the patient as sick as ever. On February 1, he received a second blood transfusion of 250 c.c., and the third, also of 250 c.c. eight days later. On February 15, he again developed signs of meningitis, and his spinal fluid was cloudy, with 2000 cells to the cu mm. This cleared rapidly, but the blood culture re-

mained positive. During this entire period, several careful attempts at desensitization were made, but the result was always the same. As soon as the amount of serum injected reached three or four c.c., the patient promptly developed a most alarming allergic reaction.

It was realized that further attempts at serum therapy were futile, and Dr. Josephine Neal of the New York City Health Department was consulted for the purpose of preparing an autogenous vaccine. At her suggestion it was decided to try sulfanilamide therapy first.

Treatment was begun on February 24, and during the next 48 hours he received forty c.c. of prontosil, and 8.45 grams (130 grains) of sulfanilamide, in divided doses, at intervals of four hours. For the next three days he received sulfanilamide alone, 0.65 grams (10 grains) three times a day. At the end of the first forty-eight hours of treatment, the temperature fell to normal, and remained so until the patient's discharge twenty-three days later. His general condition began to improve immediately, and he had a rapid and uneventful convalescence without any further treatment. Two blood cultures taken after the temperature had returned to normal were reported negative.

CASE 2 F. K., a white male, aged twenty-seven, an unemployed furrier, was admitted March 12, 1937, complaining of fever and malaise of two weeks duration, and pain, swelling, and redness of both knees and ankles for one week. His family history was negative. He had never been sick before with anything more serious than a cold. He specifically denied ever having had rheumatic fever. His present illness had begun with a feeling of lassitude and chilly sensations. He did not have a cold or any symptoms referable to the upper respiratory tract. These symptoms persisted for a week, when he began to have in addition pain in both ankles, which became swollen. This soon spread to involve both knees, and the small joints of his hands and fingers. All these joints were involved at the time of admission.

Physical examination revealed a well-developed and moderately well-nourished white male, acutely ill, with a temperature of 101.6°. His pupils were equal and reacted well to light and accommodation. The pharynx and soft palate were intensely injected, the tongue coated but moist. His neck was not rigid. The lungs were clear. The heart was not enlarged and the sounds were of good quality. There were no murmurs or thrills. The blood pressure was 120/70. Abdominal examination was negative, the liver and spleen not being

immense multiplication of the organisms. When one loopful of the organism was given each of six mice two or even three mice would survive. The two loopfuls were therefore used throughout the study for infecting the mice. One hundred per cent of deaths were always obtained in the control mice. Since the organism is so highly invasive (it can be recovered from the heart's blood a few hours after infection), Prontosil* solution was selected for this work because it is rapidly absorbed into the system. It is excreted through the urine very soon after injection. The work embraced the following experiments (Tables I-II).

1 Mice were injected intraperitoneally with two loopfuls of the culture. A 25% solution of Prontosil in different dosage was injected subcutaneously after infection and repeated again three to four hours later. If they lived until the next day, more Prontosil was given.

2 Two loopfuls of the culture emulsified in one c.c. of immune influenzae meningitis serum (agglutinating titer from 125,000 to 140,000) were injected intraperitoneally into the mice. Three to four hours later the same serum was given to one group of animals intraperitoneally and to the other subcutaneously. If they lived, more immune serum was given the next day.

3 Two loopfuls of the culture emulsified in one c.c. of normal horse's serum, containing the same preservative as the immune serum, were injected intraperitoneally as described above for the immune sera. The same serum was injected three to four hours later in one group subcutaneously and in the other intraperitoneally.

These three modes of experiments failed to lead to any satisfactory results. The treatment with Prontosil given in small dosage as used by Domagk (1/10 of the tolerant dose) or the rather large dose used by Long and Bliss (one gram per kilogram) gave erratic results. The most it did was to prolong for some hours the life of some mice beyond the twenty-four hours, or sometimes it saved one out of six, once it saved two out of six. The treatment with immune serum alone led to about the same results as the treatment with Prontosil solution alone.

*We are indebted to Winthrop Chemical Co. for supplying us with the Prontosil 25% solution for this work.

The mice treated with the normal serum died at the same time as the controls, thus proving that the preservative employed both in the immune and normal serum had no effect on the organism. The cultures were recovered from the heart's blood and peritoneal fluid of the mice which died after these three modes of treatment. In a few cases of treatment with immune serum, however, we failed to get the cultures from the heart's blood even though it was recovered from the

TABLE I—EFFECT OF PRONTOSIL ALONE

No. Mice	Initial treatment	Total treatments	Death in days			Mortality %
			1	2	3	
6	Prontosil 25% (0.3 c.c. + 7 c.c. salt solution) dose 1 c.c.	3-5	2	2	0	66
12	(0.1 c.c. + 9.9 c.c. salt solution) dose 1 c.c.	1-4	8	3	1	100
6	0.5 c.c. of 25% Prontosil solution	3-4	5	0	0	83
6	No treatment		6			100
Controls						

TABLE II—EFFECT OF IMMUNE SERUM ALONE

No. Mice	Subsequent treatment	Total treatments	Death in days			Mortality %
			1	2	3	
12	1 c.c. immune serum subcutan.	2-3	6	4	0	83
6	1 c.c. immune serum intraperi.	2	4	2		100
6	1 c.c. normal serum subcutan.	2	6			100
6	1 c.c. normal serum intraperi.	1	6			100
0	No treatment		6			100
Controls						

TABLE III—EFFECT OF IMMUNE SERUM PLUS PRONTOSIL

No. Mice	Subsequent treatment	Total treatments	Death in days			Mortality %
			1	2	3	
24	Prontosil 0.3 c.c. three hours after initial injection. Next morning Prontosil 0.3 c.c. followed by 0.7 c.c. of immune serum subcutaneously. Prontosil again 0.3 c.c. three hours later if necessary.	4-5	8	0		33
30	Same as above except that 0.7 c.c. of immune serum was given subcutaneously twice instead of once.	4-5	4	0		13
12	No treatment		12			100
Controls						

peritoneal fluid. We could assume from this fact that the immune serum may sometimes stop the invasion of the organism. It then occurred to the author to treat the infected mice with a combination of immune serum and Prontosil. From the clinical experience of different workers, such as Neal, Fothergil, Ward, and others, it was found that the immune serum lacked something in its constitution

cases observed by him, and of this number only three remained uncomplicated during their entire course. Should sulfanilamide with further use prove fairly consistent in thus cutting short the disease before complications have time to manifest themselves, its superiority in this respect alone will mark it as an advance over previous forms of therapy.

It is interesting to note that in both cases the temperature dropped to normal and improvement commenced between the second and third day following onset of treatment. Marshall, Emerson, and Cutting,⁶ who recently reported on the absorption, blood concentration, and excretion of sulfanilamide in animal and human subjects, found that in administering a given daily amount of the drug in divided doses it took from two to three days to establish equilibrium between the amount ingested and the amount excreted. Concentrations of between 1:5000 and 1:10-

000 were thus obtained and maintained in the blood stream. Once this equilibrium was established, they were frequently able to account for almost one hundred per cent of the daily dose ingested by the total excretion of sulfanilamide in free and conjugated form in the urine. It is striking that both therapeutic responses occurred abruptly at the time, when according to the findings of Marshall and his coworkers,⁶ it might be surmised that a maximum concentration of the sulfanilamide in the blood had been attained.

Summary

Two cases of meningococcemia, one complicated by three episodes of meningitis, the other uncomplicated, were treated successfully with sulfanilamide and its derivative prontosil.

150 E. 40 St.
1882 GRAND CONCOURSE

The prontosil referred to in this article is not the original prontosil as used by Domagk, but the product put out by the Winthrop Chemical Co. under that name. It is a 25 per cent solution of the red dye, the disodium salt of 4-sulfamido-phenyl-2'-azo-7'-acetylamino-1'-hydroxynaphthalene-3,6'-disulfonic acid, which is referred to in the European literature as Prontosil Soluble (prontosil S) and Streptozone S.

References

1. Domagk, G. *Deutsche med. Wchnschr.*, 61:250, 1935.
2. Buttle, G. A. H., Gray, W. H., and Stephenson, Dora. *Lancet* 1:1286, 1937.
3. Proom, H. *Ibid.* 1:16, 1937.
4. Schwentker, F. F., Gelman, S., and Long, P. H. *J. A. M. A.* 108:1407, 1937.
5. Appelbaum, E. *Amer. Jour. Med. Sci.* 193:97, 1937.
6. Marshall, E. K., Emerson, K., and Cutting, W. C. *J. A. M. A.* 108:953, 1937.

IMMUNE SERUM AND PRONTOSIL

Combined Treatment for Protection of the Mouse against Fatal dose of Hemophilus Influenzae Meningitis—Preliminary Report

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The recent favorable results reported by different authors in treatment of hemolytic streptococcal infection with prontosil, prontosil, and other sulphanilamide compounds, led the author to try the drug in mice infected with a culture of *H. influenzae*, recently isolated from spinal meningitis. Previous work on the infectivity of *H. influenzae* meningitis cultures in guinea pigs had always proved unsatisfactory. The reason for this is that no matter how virulent the culture is for this animal immediately after isolation, it loses its virulence rapidly even when treated with mucin according to

Miller's method for meningococcus. A preliminary study of the infectivity of this organism in mice was therefore made to insure the minimum fatal dose before studying the effect on it of the drug. It was found that two standardized loops* of the organism emulsified in one c.c. of salt injected intraperitoneally invariably killed mice weighing from eighteen to twenty grams in from eighteen to twenty four hours. On autopsy, the culture was recovered from the heart's blood and peritoneal fluid. The latter showed an

*1 loop approximately 2x4 mm including wire

RADIATION PLEUROPNEUMONITIS

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Radiation pleuropneumonitis is an entity that is becoming more prevalent with the wider use of recent methods of radiation therapy applied to the chest wall. With the protracted fractionated method of x-ray therapy, massive dosage may be applied to the chest wall with less skin effect and considerable increase in the quantity of radiation reaching the underlying intrathoracic structures. As a result of this, changes are developing in the lung and pleura with increasing frequency.

These pulmonary changes were first described by Christie and his coworkers¹ in 1922, and since then several papers dealing with this subject have appeared in the literature. It is interesting to note, however, that since the widespread use of massive dosages of x-ray therapy in both pre- and postoperative breast malignancy, the instances of radiation pleuropneumonitis have probably increased without being commented upon or not recognized as such.

This complication developed in three instances in my own practice in a series of forty five patients, and in each of the three patients where other opinions and consultations were sought, the diagnosis of metastatic malignancy, tuberculosis, etc. were suggested and a poor prognosis given.

Although it is generally known that radiation when applied to the chest wall may produce a slight degree of underlying pulmonary fibrosis and pleural thickening, it is not well-known and even denied by many, that pulmonary pneumonitis and pleurisy with effusion may result. When this complication does develop, it is almost invariably considered due to metastatic disease, and only those familiar with this entity which Christie and his coworkers rightly termed Radiation Pleuropneumonitis recognize the benign character of the lesion. Since this complication is occurring with greater frequency, it should be reported so that the profession at large may become familiar with it and not misinterpret its significance both as to the prognosis and treatment of the patient.

Case Reports

CASE 1 A female forty two years of age had a radical mastectomy performed for what proved to be an adenocarcinoma of the right breast with axillary metastases. Three weeks after the surgical procedure she was referred for postoperative x-ray therapy. Six portals of entry were used to include the breast region and the surrounding gland bearing areas—two tangential ports were used directly to the chest wall corresponding to the breast region, three to the axilla one anteriorly, one posteriorly, and a third directly into the axilla, and a sixth port to the supraclavicular region. 1800r units of radiation was applied to each of the six ports, using 300r daily and treating one area at a time with the following factors 200 KV, $\frac{1}{2}$ Cu and 1 Al filtration, at fifty cm distance delivered at the rate of 111r per minute. This therapy was applied over a period of six weeks.

Aside from a slight degree of radiation sickness, the patient showed no ill effects during the course of therapy. Three weeks later, however, she developed a chronic non-productive cough with dyspnea on exertion, pain on the right side with breathing, and a temperature which ranged from 99 to 101°F. Although the above symptoms were present, she was not acutely ill and if it had not been for the temperature she would not have been confined to bed. Roentgen examination at this time, (Fig 2) showed an extensive infiltration of a coalescent type resembling an exudative productive lesion and occupying the middle third of the right lung field. A slight haze was present over the infraclavicular area. The right cusp of the diaphragm was elevated and peaked mesally and the mediastinum retracted moderately toward the affected side. There was a generalized curvature of the spine with the concavity toward the affected side which suggested a splinting of this side of the thorax. On comparing this x-ray study with the one made prior to the onset of radiation therapy (Fig 1) one notes that the lung fields were entirely clear and that the above changes had developed since the onset of treatment.

The patient remained in bed three weeks and at no time was acutely ill. Her symptoms—temperature and evidence of infiltration—rapidly subsided and a further roent-

to give the favorable results which may theoretically be expected of it. The fact that so many patients improve at once after administration of the serum only to die of a relapse some time later, leads to all sorts of speculations as to what factor this serum was lacking. Fothergill, Chandler, and Dingle¹ suggest in their latest publication that H influenzae may be protected from the destructive action of antiserum when ingested and walled off by phagocytes. Perhaps Prontosil helps the serum to penetrate this wall. In the case of mice at least, it would seem that the agent to accomplish this may prove to be Prontosil. The experiments were conducted in the following manner (Table III)

1 Mice were injected with two standardized loopfuls emulsified in one cc of salt solution and injected intraperitoneally. All six died the next morning.

2 The fatal dose was emulsified in one cc of immune serum and injected intraperitoneally. 0.3 cc. Prontosil of 2.5% solution was given immediately subcutaneously. Three hours later, 0.3 cc of Prontosil was again given subcutaneously. The next morning 0.7 cc of immune serum and 0.3 cc of Prontosil was given subcutaneously. If the mice did not look particularly lively, another dose of 0.3 cc Prontosil was given subcutaneously. Those which survived the second day remained alive indefinitely. With this treatment, four to five of a series of six mice injected survived.

3 This experiment was the same as experiment #2 except that three hours after initial injection, 0.7 cc of immune serum was given subcutaneously in conjunction with the 0.3 cc of Prontosil (2.5% solution). In these series of six mice, there were from four-six mice surviving.

In order to make sure that the infective dose is the same for all mice, the following procedure was carried out. The cultures were grown on chocolate medium in potato tubes (5½ in long, ¾ in wide) for twenty-four hours. Six loopfuls of the culture of such a tube were used for infecting three mice. If, say, thirty-six mice were to be injected, we used twelve tubes, six loopfuls from each, and the seventy-two loopfuls of the organisms emulsified homogeneously in salt solution and then enough salt solution added to

make 0.5 cc of this emulsion the infective dose. The 0.5 cc of this emulsion was then added to one cc of salt for each of the six mice for controls and 0.5 cc of the emulsion to one cc. of immune serum for each of the six mice used in experiments #2 and #3.

Identical results were obtained with this more accurate method as in the one where two standardized loopfuls were emulsified directly into the serum. There were from four-six survivals in each of the series of six mice, except, of course, in the controls where death occurred in one hundred per cent of the animals overnight. When the immune serum plus Prontosil were given three hours after the fatal infection, all mice were dead the next day. Perhaps the infective dose is too severe for a delayed treatment to be of help. Neither was the Prontosil plus serum effective when the initial dose of the serum was given subcutaneously instead of intraperitoneally. Although the immune serum should be given for the initial dose intraperitoneally in contact with the organism, the mice do better if the subsequent treatment with the serum is given subcutaneously. Mice as a rule cannot stand too heroic treatment. They did not do well when we tried to give three treatments a day instead of two.

We are therefore led to believe, as a result of our experiments, that Prontosil may prove the needed adjunct to immune serum in the influenzae meningitis clinical cases, when the infection is not too overwhelming. At the end of this study an article appeared written by Branham and Rosenthal² on the use of combined sulphanilamide and immune serum in treatment of meningococcus and pneumococcus infection in mice. These authors also feel that the drug may be a good adjunct to the serum treatment of these infections.

Acknowledgment

The author wishes to acknowledge the valuable assistance of Katherine Bleckerman.

72½ IRVING PLACE

References

- 1 Fothergill, Chaundler, and Dingle. *Jour of Immun* 32:335, 1937.
- 2 Branham, Sara B. and Rosenthal. *Sanform M U S Public Health Service* Vol 22 May 28, 1937.

therapy to the breast after a local surgical excision of a tumor which proved to be a colloid malignancy without palpable metastases. She received a course of radiation therapy consisting of 1800r units applied to each of six areas as in the previous case.

Four weeks after the completion of treatment, she developed a marked hacking unproductive cough, a general feeling of



Fig 5



Fig 6

Fig 8

malaise and ran a slight temperature. Signs of infiltration appeared in the underlying lung. Roentgen studies two weeks after her symptoms and temperature had almost completely subsided showed (Fig 5) a coalescent infiltration very similar to Case 1 involving the middle third of the right lung held with surrounding patchy areas in the adjacent portions of the lung. The cusp of the diaphragm was raised and there

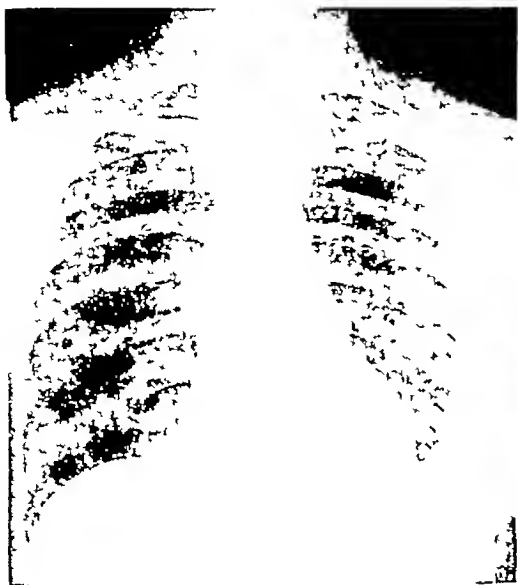


Fig 1



Fig 2

gen study made three months later (Fig 3) revealed some evidence of fibrosis in the upper lobe, some mediastinal retraction, and elevation of the diaphragm. The infiltration had entirely resolved. Her general condition throughout was excellent. The subsequent course was uneventful aside from an occasional sticking sensation in the right chest and an infrequent, slight, unproductive cough. She gained weight rapidly and there has been no recurrence of her breast

pathology. Over a period of eighteen months, since the above episode and almost two years after her mastectomy, this patient has remained perfectly well. Roentgen study at this time (Fig 4) showed slight residual fibrosis and some elevation of the diaphragm which was freely movable. The mediastinum was retracted.

CASE 2 A female, fifty-one years of age, was referred for postoperative radiation



Fig 3



Fig 4



Fig 11

The amount of radiation therapy given varied. In the third case, 1200r was administered to each of four areas and in Cases 1 and 2, 1800r was administered to each of six areas. In the patient receiving the least amount of radiation, the reaction on the skin as well as in the lung developed during the course of radiation therapy, and for this reason, the therapy was stopped. In Cases 1 and 2, symptoms developed three and four weeks later and in neither case was there more than a first degree reaction on the skin nor evidence of severe radiation sickness. The patient receiving the least amount of therapy volunteered the information that she vomited readily on the least provocation and was of a very neurotic temperament. It was very difficult to evaluate her symptoms in relation to the radiation therapy.

This observation corresponds with the experimental evidence that Davis² was able to obtain. He states that there was the greatest variance in the amount of radiation used to produce these intrathoracic changes. In his experimental animals, only 120 ma minutes were required in one case and in another, 730 before developing symptoms referable to the chest. As described in the first two cases, six portals of irradiation were used in all of the forty five cases from which this series was taken except in the one instance where only four portals of entry

were used. These areas were divided as follows: two to the breast area, one left and one right using tangential radiation as much as possible, the third area directly to the supraclavicular region, and three to the axilla, cross-firing this area, using one anterior and one posterior port, and a third directly to the axilla. The posterior port to the axilla was extended to include the posterior shoulder girdle region and the supraclavicular region posteriorly. One area was treated daily giving 300r units per treatment and using the following factors: 200 KV, four ma, fifty cm Std and one-half Cu plus one Al filtration. A first degree reaction was obtained in nearly every instance. No skin sequelae, except a faint tanning, resulted after the erythematous reaction subsided.

In making a differential diagnosis, several possibilities must be considered—metastatic malignancy, pulmonary tuberculosis and a nonspecific infectious pneumonitis. The appearance of the lesion is not characteristic of malignancy. It resembles more a pneumonic process of the exudative productive type of tuberculosis described by Ornstein and his coworkers. Repeated sputum examinations proved to be negative, and as previously stated, the studies made prior to the irradiation in each instance showed the lung to be entirely clear so that the possibility of light-



Fig 12

was a curvature of the spine with the concavity to the right. These changes had developed since the radiation therapy was completed, since a fluoroscopic study immediately after completion of therapy revealed the underlying lung to be clear. Restudy, five weeks later, (Fig 6) showed that a collection of fluid had developed at the right base. The infiltration had cleared somewhat. Studies made two and three months after the first examination and three and four months after the completion of therapy, showed gradual resolution of the exudate and the clearing of the pleural effusion with an irregularly elevated and peaked cusp of the diaphragm (Fig 7). During this interval, the patient's symptoms gradually subsided leaving only a slight throat irritation coming on at irregular intervals. Fig 8 shows the condition of the lung fifteen months later. There is a slight residual fibrosis in the upper lobe and the diaphragm though somewhat raised is more smooth and regular. The curvature of the spine has been overcome.

CASE 3 A white female, age forty-eight was referred for postoperative radiation therapy after a radical mastectomy of the right breast. The pathological report was adenocarcinoma with axillary metastases. Deep radiation therapy was given at daily intervals using the same factors and setup as in the previous two cases. This patient stood her treatments badly and it was necessary to prolong the intervals and decrease the quantity of radiation at each treatment. She received 1200r units to each of four



Fig 10

areas—two to the breast region, one directly to the axilla, and one to the supraclavicular region. She developed a rapid first degree reaction on her skin and a concomitant pulmonary infiltration (Fig 9) before the therapy outlined for her was completed. The infiltration, unlike in Cases 1 and 2 was of a diffuse, patchy type scattered throughout the entire lung. The diaphragm was elevated and there was some retraction of the mediastinum. These changes had developed entirely since the onset of therapy, as a previous fluoroscopic examination was negative. The only symptom during this time was a persistent unproductive hacking cough. Three and a half months later, a restudy of the chest showed considerable clearing of the exudate (Fig 10). Five months later or nine months after the completion of treatment, there was still an irregular, patchy infiltration and fibrosis throughout the right lung with the same elevation of the diaphragm. There was a marked retraction of the mediastinum posteriorly with emphysema of both the upper and lower lobes apparently compensatory in nature to the fibrosis present. This patient is now free of symptoms referable to the chest aside from a slight infrequent unproductive cough.

All three patients aside from the local malignant process, showed no other evidence of disease. All three were in the fourth and fifth decades of life. The arteriosclerotic changes stressed by McIntosh⁵ were not present in these patients.

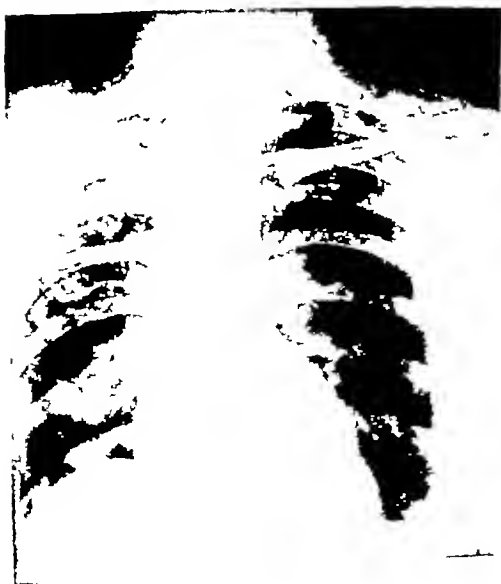


Fig 9

RADIATION PLEUROPALMONITIS

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which will clear, producing very few subsequent ill-effects. Once the condition is recognized as radiation pleuropneumonitis, the benignity of the lesion becomes evident and the prognosis as well as the treatment of the patient can be properly controlled.

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References

- 1 Groover, T A Christie, A C, and Merritt E A
South M J 15 440 1922
- 2 Davis Kenneth S Radiology 3 301 1924
- 3 Corvillo P Personal communication
- 4 Adair Frank E Amer Jour Roent & Rad
Ther 35 359 1936
- 5 McIntosh H C Radiology 23 558 1934
- 6 Desjardins Arthur U Am Jour Roent and
Rad Ther, 16 444 1926
- 7 Leucuta T and Evans W A Ibid 13 203
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MECHANICAL RESUSCITATION OF THE NEW BORN

According to D Ben Martinez, Pittsburgh (Journal A M A, Aug 14, 1937), the problem of a safe and sane method for the resuscitation of the newborn requires serious thought at the present time, owing to the fact that each day more women demand the use of various drugs to make "childbirth painless," with the natural sequela that the obstetrician has to deal with more narcotized babies.

This demand, as the obstetrician knows, is due to the unfortunate publicity given in the lay press about their uses. The staff at Magee Hospital has gone through the various stages in the development of resuscitation of the new-born, i.e., the old mouth to mouth method, the hot and cold tubbing, various forms of manual methods, and the use of oxygen or oxygen-carbon dioxide mixtures held over the baby's face by means of a funnel or a catheter placed down in the baby's larynx for it to receive the gas in a concentrated form. In 1930 the author imported a von Wachenfeldt respirator from Sweden.

This chamber type of apparatus, in which a definite (15 mm) positive and negative pressure is exerted on the baby's body with the head remaining outside the cabinet so that oxygen can be given directly to the fetus, seemed to be an improvement over previous methods.

However, since July 20, 1934, the E & J Resuscitator has been used at the Magee Hospital.

It is a positive and negative apparatus and the pressure is exerted by the oxygen over the baby's face through a mask similar to that used in administering gas anesthesia. The apparatus is equipped with two tanks—one of oxygen and the other a mixture of ninety per cent oxygen and ten per cent carbon dioxide, so that either can be used with ease. The reversal of positive pressure to negative pressure and vice versa is brought about by a tripping mechanism which operates when the intrapulmonary pressure of the patient's

lungs reaches either the predetermined positive or negative pressure.

This principle of operation enables the apparatus to adjust itself automatically to the proper volume and respiratory rate of any size lung regardless of how small or how large.

A very rapid tripping due to the diminished capacity, warns the operator when the airway is obstructed by mucus, the tongue or some foreign substance.

When spontaneous respiration has been established the respiratory efforts of the patient cause the sensitive mechanism to respond by tripping rapidly or irregularly.

At this stage the operator turns a lever and the apparatus is immediately changed from a mechanical resuscitator to a simple inhalator.

On the basis of observations on 500 cases, in all the obstetric services of the Magee Hospital in which the E & J Resuscitator was used the author concludes that this mechanical positive and negative pressure apparatus is a definite improvement over any other method, not only in resuscitating the babies that actually need it but also in aiding the babies that just do not cry vigorously.

The safety of this apparatus is certainly an important factor since any one (nurse or intern) with a little training can use it thereby permitting the obstetrician to devote his full attention to the mother when needed, as is very often the case in difficult deliveries in which asphyxia is apt to occur.

The resuscitator is almost fool proof, as the positive and negative pressures cease automatically when the child breathes of its own accord and allows it to breathe the oxygen from the bag, or, if desired, it may breathe the oxygen-carbon dioxide mixture through the inhalator attachment. The author believes that this is a definite lifesaving device and should be a part of the armamentarium of all hospitals that have obstetric patients.

ing-up of a previously inactive tuberculous lesion, is rather remote. The spontaneous clearing of the lesion rules against malignancy, and in all three cases followed—two years, two years, and two and a half years,—no recurrence in the lung has developed. A nonspecific pneumonitis developing in the area of diminished resistance following irradiation cannot be ruled out entirely. However, the occurrence of the lesion directly in the path of radiation and the increased frequency of this occurrence with the quantitative increase in the radiation administered, and the indisputable experimental evidence obtained by Davis² seems to prove that we are dealing with a definite entity.

Obviously very little pathological material is obtainable since these patients do not succumb to this pulmonary lesion. We have, however, excellent experimental evidence obtained by Davis, which establishes this finding as a definite pathological entity. He states that the lesion can be produced at will on experimental animals. Davis found that the experimental pathological picture at the onset is that of a marked edema and congestion of the lung followed by cellular proliferation, especially in the alveolar walls. The majority of cells probably are connective tissue cells. He feels that fibrosis undoubtedly plays a part in the latter stages but that atelectasis cannot be ruled out. He was able to produce a pleurisy with effusion in one instance. McIntosh cites one case in which she was able to obtain pathological evidence of the changes produced by radiation. This patient died of a lobar pneumonia involving the opposite lung. The lung affected by radiation in this instance was covered by a thick, yellowish green, fibrinopurulent exudate. The cross section revealed a firm consolidated surface. The pleura was thickened and the entire upper lobe was involved in a peculiar consolidation consisting of dense patchy white areas many of which were in close relation to the smaller bronchi. Definite peribronchial fibrosis was present throughout. Histologically there was intense thickening of the alveolar wall with some exfoliation of the lining cells into the lumen. Perivascular and peribronchial thickening were present in all sections.

Coryllos⁴ feels that atelectasis secondary to bronchial obstruction explains the pathological picture. Massive radiation in his opinion produces a marked edema and swelling of the bronchial mucous membrane causing obstruction. Adair⁵ has shown that the occurrence becomes more frequent with the increase in the amount of radiation used, and he was able to produce this change almost at will when the amount of radiation was increased above 1800r units of radiation per portal.

Leucutia and Evans⁷ have been able to develop pulmonary changes with stated percentages of radiation applied to the chest wall. The roentgen findings—the elevated diaphragm, retracted mediastinum, and narrowed interspaces—are strongly suggestive of atelectasis, and the lung changes can readily be explained in this manner.

These experimental studies point to a quantitative physical basis for the development of the pathology, and as such, favor atelectasis. Although this may not explain the entire picture, it probably plays a major part.

As stated previously, this complication occurred in three in a series of forty five cases treated by massive radiation to the chest wall. The complication should not be considered a contraindication to therapy of this type since the results in the treatment of breast malignancy, as far as we can judge at the present time, have been improved by this method of therapy. The morbidity is slight and when followed over a period of time, the lung findings cleared almost completely leaving only a slight residual fibrosis which causes very little if any embarrassment to the patient. In many instances, the condition is not recognized, because routine studies of the chest are not made during and immediately after the roentgen therapy is given. In some instances, the symptoms may be absent entirely. As a rule, symptoms develop a month or so after the completion of radiation and correspond to the height of reaction on the skin.

The importance of the subject lies in not misinterpreting the lung pathology as being due to metastatic disease, tuberculous or other serious pulmonary pathology but rather a transient pneumonitis.

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References

- 1 Groover, T. A. Christie, A. C., and Merritt E. A. *South M. J.* 15 440 1922
- 2 Davis, Kenneth S. *Radiology* 3 301 1924
- 3 Coryllos, P. Personal communication
- 4 Adair, Frank E. *Amer Jour Roent & Rad Ther* 35 359, 1936
- 5 McIntosh, H. C. *Radiology* 23 559 1934
- 6 Desjardins, Arthur U. *Am Jour Roent and Rad Ther*, 16 444 1926
- 7 Leucutia T and Evans W. A. *Ibid* 13 203 1925

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CANCER OF THE BREAST

Present Status of Surgery and Irradiation Therapy

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Irradiation therapy has made enormous strides particularly within the past ten years due to two reasons. The first was the introduction of high and super-voltage x-ray equipment, so that more effective irradiation can be given in the depths of the tissues. The second advance was made by Coutard, of Paris, who introduced a new principle in the technical application of the x-ray dose. Coutard, instead of giving the massive doses which so commonly result in nausea and radiation sickness, divided the doses into smaller units, not only relieving the patient of so much radiation sickness, but also resulting in being able to give much greater and more effective doses. The second step, namely the fractionating of doses, opened up entirely new vistas in radiation therapy in general. A few types of cancer heretofore treated best by surgery or radium or a combination of both, now preferably came to be treated by high or super-voltage x-ray delivering the divided doses by the Coutard principle.

The modern conception of cancer is that it represents a wide variety of disease groups. It is therefore not reasonable to expect each type to respond similarly to the same therapeutic procedure. One variety of cancer may be more successfully treated by *surgery* alone, such as gastric or colon cancer, another type by *irradiation* alone, such as cancer of the cervix, uteri, another type, by a *combination* of surgery and irradiation, another type with external irradiation by x-ray with the added introduction of radium into the tumor.

We surgeons have reached that point, in cancer therapy, where we are being confronted with the duty of informing ourselves as to which type of therapy is more effective and preferable for a particular cancer group. No modern surgeon will maintain today that surgery is the *only* method, or the best method of attacking all varieties of cancer. Cancer of the breast

has usually been considered to be a resistant type of cancer in terms of irradiation therapy. However, there are many enthusiastic reports from various radiation clinics, bespeaking enthusiasm for this method of therapy for breast cancer as a single method of treatment. Some radiation clinics maintain that it is a preferable method, to the surgical approach. Over the years past I have made a careful examination not only of these clinics but also of the written reports, and what has always impressed me has been that definite statements are made without fully presenting the pathology or the end-results of treatment. The reports that I have recently examined which include five-year end-results, have failed to convince me to date that irradiation as a single form of treatment is preferable. However, irradiation therapy is slowly and consistently improving its results so that some well-laid plan of approach to this problem of breast cancer must be made, particularly because cancer of the breast involving the axillary nodes, is more or less of a failure treated surgically.

A cross section study of the end-results accomplished by surgery alone in the good surgical clinics of America reveals that when cancer involves the breast only, sixty-five to seventy per cent five-year cure is obtained and when the cancer involves the breast together with the axilla approximately fifteen to twenty per cent five-year cures are obtained. The results of the radical amputation followed by post-operative therapy in our hands at the Memorial Hospital is seventy-two per cent five-year cures when the breast is involved alone and twenty-three per cent five-year cures when the breast and axilla are involved.

By the term "operable" is meant that the disease as far as one can tell clinically is confined to the breast or the breast together with axillary nodes. Our impression is that postoperative irradiation ther-

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apy has in all probability added about five per cent to the surgical salvage. The report of end-results by Dr Bloodgood, from Johns Hopkins, is seventy per cent five-year cures by surgery alone when the disease is confined to the breast and fifteen per cent five-year cures where the axilla is also involved. In other words, surgery alone cures approximately three out of four cases if the breast only is involved. This is fairly satisfactory, but surgery only cures less than one in six where the axilla is involved. The desperateness of the latter situation is good reason for undertaking to add something to the surgical accomplishment. As a matter of fact, the present surgical operation can hardly be any further developed. Only minor changes have been added to the radical amputation during the past forty years, since the great contributions to the subject by Halstead and Willie Meyer. The only possible further development of the surgical procedure would be that of an intrascapulothoracic amputation. This would unquestionably save a larger percentage of lives, but the operative risk involved would add materially to the deaths, this procedure probably cannot be justified at present.

In general, surgery is a satisfactory procedure and its results are fairly satisfactory in the treatment of this lethal disease, *if the disease is not in the axilla*. Unfortunately, however, in half of the cases of the operable group, the disease is in the axilla, and here surgery is far from a satisfactory procedure. What is surgery doing about it? What have we done in the past forty years to improve our results where the axilla is involved? The answer is that we are doing nothing new. In other words, if our results are to improve, we must look for help in some other field than surgery.

When one breaks away from established tradition one always subjects oneself to a certain risk. Aside from this, trying a new procedure always brings with it an entirely new set of problems. This has been the case in this report which I am presenting.

Those operable cases in which there is a failure to cure are, generally speaking, not so much the fault of the surgeon or his technic, if standard procedures are carried out, as it is the fact that we are unable to

tell when we are dealing with a case which has microscopic metastases beyond the operative field. Few of us ever stop to consider what may have happened to the carcinoma before the case came to us. Occasionally we see instances where the patient has been giving herself daily massages in an attempt to make the lump disappear. Colorful and unpleasant medicines have been rubbed in. The family doctor has palpated the tumor over a period to see if the tumor is not disappearing spontaneously and too often we see evidences of the black and blue area in the neighborhood of the tumor speaking eloquently of the criminal lack of delicacy in palpation. All in all there are several reasons to account for our failure to cure the operable breast cancer. Many of the twenty-eight per cent of failures to cure in those instances where there is no axillary involvement simply mean that the villain has escaped through the back door into the liver or chest and that neither surgery nor irradiation nor both had any opportunity for cure at the time that the patient came.

This report represents a study which we initiated three and a half years ago on only the operable breast cases. Every case here reported has not only had an aspiration biopsy but it also has had the pathological study made later. Our routine, in general is the following. First an aspiration biopsy is made when the patient first comes to the hospital. The patient, if the biopsy be positive, for cancer then starts on the preoperative irradiation program. This irradiation program has varied during the past three years. We have taken certain groups of cases giving them different amounts of high voltage x-ray or the radium element pack. In a good many instances it took from four to six weeks to deliver the entire amount of irradiation. In most instances the skin was not only well-red-dened but some cases went on to blistering and even ulceration. After the completion of the preoperative radiation therapy, we allowed from four to six weeks, sometimes even longer for the irradiation effect to take place and the skin to recuperate. At the end of this time a radical amputation was performed. This was followed by most careful studies in the pathological laboratory by Dr Ewing and Dr Stewart,

to whom I owe a great deal for their co-operation. As a result of the irradiation therapy, it was found that about sixty per cent of the cases showed *clinical* disappearance of the breast tumor, and about fifty per cent showed clinical regression in the axillary nodes. We found, however, that these figures do not represent an accurate condition, as many times Dr Ewing in the laboratory found signs of viable cancer in an area where the disease had entirely disappeared clinically. The microscopic studies showed that it was rather easy to miss the original site of the tumor, after the disappearance of the tumor in the gross. Dr Stewart found that there was a characteristic scarring in these cases where the tumor had completely disappeared which was helpful in locating the original tumor site. When we did the radical mastectomy we carefully measured and marked with a black thread exactly the site of the tumor so that it would be of assistance to the pathological department. As a result of the pathological studies we have found the following:

Breast Only Treated by X-rays

1 In 141 cases treated preoperatively by the x-rays, there were thirty-four, or twenty-four per cent, in which there was complete microscopic destruction by the preoperative irradiation. In this group no trace of cancer could be found in the mammary tissue.

2 In these same 141 cases, treated by the x-ray, there were twenty-four, or seventeen per cent, in which such a disintegration of the cancer tissues took effect that we doubt its capacity to survive or regenerate (REB 3) in which the destruction was so great as to make grading of the tumor impossible.

3 It may be improper to add groups REB 4 and REB 3 (time only will settle this point) but if it were proper it would result in a forty-one per cent sterilization of the tumor located in the breast. Dr Ewing maintains that what he classifies as group REB 3 is probably incapable of survival. Dr Stewart in the same laboratory takes the position, and I think properly so, that this group should not be added to REB 4 as examples of total destruction.

It is of interest to compare the results of therapy by the x-ray and by the radium element pack.

Breast Only Treated by Radium Element Pack

1 Fifty-nine cases were treated by the

radium element pack. In thirteen or twenty-two per cent complete sterilization was accomplished in the breast.

2 In ten, or seventeen per cent of the 59 cases, almost complete destruction took place (REB 3).

3 The addition of the groups REB 4 and REB 3 treated by the radium pack totals thirty-nine per cent, which is very close to the forty-one per cent accomplished by the x-rays.

Axillary Nodes Treated by X-ray

1 Of the radium pack cases with axillary were seventy-seven having axillary involvement. Of these, five had complete sterilization of the axillary nodes, which is 6.5 per cent.

2 There were seven cases, or nine per cent where the destruction was almost complete (REN 3).

Radium Element Pack

1 Of the radium pack cases with axillary involvement, three, or eleven per cent, had complete sterilization of the nodes.

2 There was one instance, or 0.4 per cent, in which there was almost complete destruction.

We therefore find of a total of 200 cases treated by irradiation therapy that we have forty-seven of complete sterilization or complete microscopic disappearance of the tumor from the breast. This is 23.5 per cent. This is lower for this large series than my previously published report of a smaller series where I obtained sterilization in thirty-three per cent when treated more heavily. When it comes to the axilla we have 104 cases with axillary involvement and obtained complete microscopic sterilization in only eight, representing eight per cent. Although these figures are impressive, as showing that we have another agent which can be employed in combatting this disease, still it presents a far from satisfactory weapon in our hands today.

There is renewed talk today of ovarian sterilization in cases of mammary cancer. Some reports are impressive but no large groups are reported which are very convincing of *permanent* cure. However, the laboratory studies, particularly those of Little, together with our clinical experience, would indicate that this form of therapy is more than justified. In my own

practice, I sterilize women who still menstruate, if the disease is *extensive* or even in cases of young women with axillary disease

Lord Monahan stated to a formal group at the Memorial Hospital a few years ago that he had lived to see the end of the radical mastectomy for cancer. He had been greatly impressed by the work of Geoffrey Keynes in London.

Dr. Carl Eggers stated in the December 1932 *Annals of Surgery*, "Various statistical reports dealing with the late results after operation of cancer of the breast make one feel that no real progress is being made. We are at a standstill and a feeling of pessimism regarding the entire subject may be noted. Perhaps the best reports come from those clinics combining radical surgery with post-operative irradiation."

One of the unfortunate complications of heavy irradiation is pulmonary pneumonitis or fibrosis of the lungs. Mild irradiation over the chest wall does not produce this condition. In this series the fibrosis was noted more particularly where our dosage went up from 1,800 roentgen units per port to 2,400 per port. Fibrosis is denied by some radiologists and by others it is stated that fibrosis will be obtained only where there is improper technical application. It is very difficult in certain instances such as a case of carcinoma in the upper inner quadrant of the breast, to keep from directing the irradiation beam into the depth of the lung. In certain instances of very thin women with small breasts flattened on the chest wall, it is difficult not to give irradiation which may cause fibrosis. In our series we have obtained fibrosis in about eight per cent of the cases. This is a condition which is very distressing to the patient. It produces coughing and a certain amount of discomfort and pain. Fortunately, many of the symptoms clear up at the end of four or five months as the x-rays will demonstrate.

The x-ray film shows that frequently there is a pulling up of the diaphragm with adhesion between diaphragm and lung. There may be a deviation of the trachea to the side which is irradiated. There is also rather a dense shadow in the lung which is commonly confused with metastasis. This appearance is one which

requires a radiologist of some experience to distinguish. In other words, x-ray therapy has produced a *new* disease of the lungs, about which the radiologist and clinician must now become familiar.

Another condition which may meet with great objection particularly on the part of the surgeons is that of delay. Many surgeons accept the view that on the day the definite diagnosis of cancer of the breast is made, the patient should be operated on. This study does not bear out this point because the tumor begins to diminish as a rule when the treatment is begun. However, as it is impossible to prove these points except by the passage of time, we must be content not to give this too important a place in our considerations. After all, the main effort involved in giving preoperative irradiation is to prove or disprove whether or not we have larger percentage of five year cures when we employ preoperative irradiation or whether we do not.

If the life expectancy in this group of cases could be improved by five or ten per cent, I assume that the unfortunate complications of preoperative irradiation would be justified and worthwhile.

There is another complication which has arisen in these cases where heavy irradiation has been employed. The wound healing is very much poorer than in unirradiated cases. There is a characteristic story that goes with these cases. The breast and surrounding tissues are fibrosed and there is much more bleeding and difficulty in doing the operation than in other cases where there is no preoperative irradiation. There has been such a marked endarteritis and such a cutting-down of the blood supply to the tissues, that capacity for healing is greatly diminished. The wound may pull apart and result in separation. This open wound may take weeks to heal. In this series we have had two instances in which there has even been necrosis of a rib.

Although lymphedema is encountered entirely too frequently even in those cases having no preoperative irradiation, it has more reason to occur and does occur more commonly in the irradiated case due to poor wound healing. This distressing complication should not be considered lightly. In those cases previously irradiated the muscles in the region of the shoulder are

often fibrosed so that arm function is diminished. There is an unknown factor which no one has yet measured. We know by experience that muscle tissue easily undergoes fibrosis as a result of irradiation. In many of our cases of breast cancer on the left side, the heart muscle unquestionably receives its full share of rays. It remains to be seen whether or not there is any cardiac damage of a permanent nature to be derived.

You may ask why we operated on the patient after such heavy irradiation. It is because we know that surgery produces a definitely known percentage of cures in mammary cancer, and we must not deny that patient his fair chance. But by the addition of preoperative irradiation, we will be able to soon compare the accomplishments of the two methods. The five year period will not be completed before eighteen months, then we can state facts.

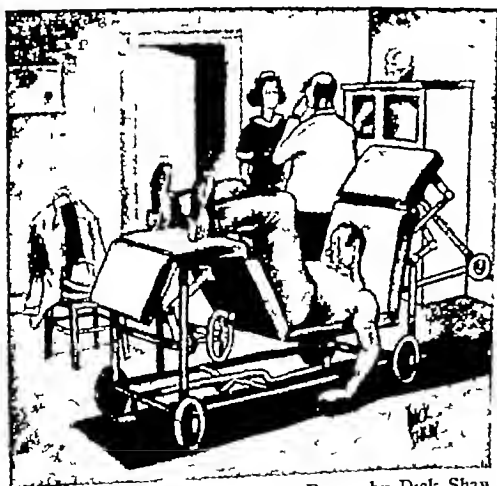
There are those bolder than I am who are satisfied to give only irradiation for this rather resistant type of cancer. But to date their cases treated are too small to be of very imposing statistical value.

Conclusions

I repeat that this work has carried with

it many distressing complications. It has also proven that external irradiation given by the high voltage x-rays and by radium pack has capacity to entirely sterilize mammary cancer in about one case out of four. With the present technic as we have used it, it has sterilized axillary disease in only one in ten cases. This group of 200 cases is being reported to you as a piece of clinical research in the course of investigation. The main conclusions are yet to be drawn and it will not be possible to do that until the five year period has lapsed. I would like to emphasize here that preoperative irradiation is something which should be employed judiciously. Heavy irradiation should not be employed to large ports in the aged. The indications are that we will probably next turn our attention to irradiation of only those cases in which there is axillary involvement. In this instance both external irradiation with the addition of interstitial radium must be employed if radiation is to compete with surgery. Due to the fact that mammary cancer can be sterilized, if a proper technic be employed, I am still hopeful that irradiation will play a part in the ultimate treatment of this disease.

70 E 77 St



Drawn by Dick Shaw

"Quick, Get me the instruction book that came with the table!"

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THREE DOORS FOR THE NEW M.D.

General practice, whether in town or country, is entered in one of three ways, says an English book called "A Guide to General Practice." The newcomer may take a house, put up a plate, and wait for work to come to him, he may buy the goodwill of a practice rendered vacant by retirement or death, or he may become a partner in an established firm. The first is more risky than the second, and the second than the third. A well-managed partnership of three or more has this advantage over single-handed practice, that it allows each partner leisure for recreation and for keeping up with the progress of medicine. Success in private practice demands a great deal of knowledge beyond that gained at the medical schools, and hence a man is more likely to be accepted as a partner, or to do well on his own account, if he has already some experience as an assistant or deputy.

TRENDS IN OBSTETRICS

LESTER R. MELLOR, M D, Syracuse

To physicians interested in maternal and fetal welfare, I thought it very fitting to present a statistical resume of obstetric procedure and trends during the last eighteen years. This includes fifteen years, closing period at the University Hospital, and three years of data from the General Hospital of Syracuse.

The first fifteen years cover 7722 cases, while the last three years cover 1584, a total of 9306. Cases are grouped in from three to five year periods and are grouped into three tables to facilitate clearness (Table I).

From 1917 to 1921, a four year period of 1987 cases, 218 or nine per cent were forceps cases, forty versions were performed or two per cent with ten fetal deaths, mortality rate of twenty-five per cent, there were seventy-seven breech cases with twelve fetal deaths, a mortality rate of 156 per cent. Stillbirths numbered ninety-nine, a rate of 39 per cent, placenta previa showed eighteen with five fetal deaths, a mortality rate of twenty-eight per cent, there were two ablatio placenta and thirteen cases of eclampsia with two fetal deaths. Twelve sections were performed with one maternal death, a mortality rate of nine per cent.

You will observe that I have grouped these data in order to show the trend of procedure in modern care of obstetrical cases. Progress may or may not be observed.

The second period, 1921-1924, is a three year period showing 1186 obstetrical cases with 129 forceps, an incidence of about ten per cent. Fifty-four versions were done, an incidence of 45 per cent with seventeen fetal deaths, a rate of 315 per cent, an appalling figure. Inasmuch as the difficulty of labor for which version was performed is not evident, criticism should be withheld. Forty-six breech cases, nineteen fetal deaths, another startling figure of 413 per cent mortality. Again we must hold our opinion *sub judice*, remembering that all of this data includes the work of private physicians, obstetricians, general practitioners, surgeons, gynecologists, and interns more or less under the tutelage of attending obstetricians. Watch these same

statistical series in later years when specialism has become more assertive. There were fifty-seven stillbirths in this period, a rate of 45 per cent, three placenta previa with three deaths of infants, two ablatio placentas and eight eclampsics with three fetal deaths and one maternal death. Seven sections for this period with one fetal and no maternal deaths.

The third period (1924-1929) was a five year span showing 2835 cases with 547 forceps deliveries—about twenty per cent. One hundred and one versions, 35 per cent of the whole number with twenty-nine fetal deaths or about twenty-nine per cent mortality. Breech cases numbered 111 with twenty-one infant deaths, a much reduced mortality rate to twenty per cent, 117 stillbirths or 45 per cent, placenta previa was present in twenty-two cases with fetal deaths of thirteen or sixty per cent, maternal considered later. Three ablatio placentas, thirteen eclampsias with three mothers and fetuses dying. In this group were forty-nine sections, one maternal and three fetal deaths. Maternal rate of 17 per cent. This period shows improvement in all figures.

The fourth period (1929-1932) covers three years and 1714 cases. Forceps were used in 447 deliveries an incidence of twenty-six per cent or more than one in four. Seventy versions showing that this procedure was used in 45 per cent of cases with fourteen fetal deaths, twenty per cent mortality. Fifty-three breech cases with eleven fetal deaths makes a mortality rate of about twenty-one per cent. There were sixty-seven stillbirths or 39 per cent. Placenta previa claimed three cases, all babies dying, three ablatio placentas, and one eclampsia with fetal death. Cesarean section was performed sixty-six times, with three fetal and two maternal deaths, this rate being 38 per cent.

Averaging the total fifteen years with 7722 cases, we find 1332 were delivered with forceps, an incidence of 173 per cent. Versions claimed 265, of which seventy or 265 per cent were stillborn. 287 breech cases with sixty-three fetal deaths gives a rate of twenty-two per cent mortality. A total of 340 stillbirths gives a rate of 44 per cent, 136 postnatal fetal deaths or 17 per cent were later tabulated making a total

*Read before Maternal Welfare Meeting of the Onondaga County Medical Society,
April 22 1937*

fetal death rate of 61 per cent which includes the first ten days of fetal life. The forty-six cases of placenta previa with twenty-four fetal deaths, makes a tragic mortality rate of forty-nine per cent—a terrific toll of fetal life some of whom

might have been saved by section. Five maternal deaths occurred from this complication, eleven per cent maternal mortality. The ten recorded ablatals recorded ten fetal deaths, no maternal deaths. Thirty-five eclamptics with six maternal and nine fetal

TABLE I

Years	Cases	Forceps	%	Version	%	F Deaths	%	Breech	F Deaths	%	Still born	%
1917-1921	1 987	218	9	40	2	10	25	77	12	16.6	99	3.9
1921-1924	1 186	120	10	54	4.5	17	31.5	46	19	41.3	57	4.5
1924-1929	2 835	547	20	101	3.5	29	29	111	21	20	117	4.1
1929-1933	1 714	447	26	70	4.1	14	20	53	11	20	67	3.9
	7 722	1 332	17.3	265	3.4	70	26.5	287	63	22	340	4.4

	Placenta Previa	F Deaths	%	Abt	Eclampsia	F Deaths	M Deaths	Section	F Deaths	M Deaths	%
1917-1921	18	5	28	2	13	2	2	12	0	1	9
1921-1924	1	3	100	2	8	3	1	7	1	0	0
1924-1929	22	13	60	3	13	3	3	49	3	1	1.7
1929-1933	3	3	100	3	1	1	0	66	3	2	3.8
	46	24	49	10	35	9	6	134	7	4	3

Incidence 1-166 1-772 1-226 1-58

TABLE II

Year	Cases	Forceps	%	Version	%	Fetal Deaths	%	Breech	Fetal Deaths	%
1934	511	97	18.9	7	1.3	1	14	6	3-1	33
1935	535	89	16.6	9	1.7	1	11	6	0	0
1936	538	178	33	4	7	0	0	17	3-1	11
	1 584	364	23	20	1.2	2	10	29	6-2	20

	Plac Previa	Abt Placen	Eclampsia	Mat	Fetal Deaths	Still-Births	%	Sections	%	Death
1934	1	0	2	2	0	12	2.3	31	6	0
1935	1	1	0	0	0	17	3.1	34	6.3	0
1936	1	1	4	0	3.1	8	1.4	25	4.6	0
	3	2	6	2	3.1	37	2.3	90	5.7	0

Maternal deaths 5 (Chr nephritis eclampsia abruptio placenta pelvic abscess peritonitis)
Incidence of 1 in 317 Ob cases

TABLE III

	Fetal deaths	Prem	Seph	ProLapse	Tor	Labor	Hemorrhage	Macerated	Atlet
Stillbirths	37	6	2	Cord	7	8	Prolonged	4	2
Post natal	18	9	0	Hem. Dis.	1	Asph	4	Monsters	2
In 7 722 obstetrical cases—	1 section to 58 cases maternal mortality 3%								
In 1 584 obstetrical cases—	1 section to 17.6 cases maternal mortality 0								
9 306 obstetrical cases—	1 section to 41 average maternal mortality total 1.8%								

Episiotomies and lacerations covering three years
 1932 — 325 cases Episiotomy 8 Incid. 2.4% 1st degree tear 109 2nd 48 S G H
 1935 — 535 cases Episiotomy 75 Incid. 15% 1st degree tear 116 2nd 49 S G H
 1936 — 538 cases Episiotomy 114 Incid. 22.4% 1st degree tear 99 2nd 26 S G H

Puerperal infection, 5 maternal deaths in 7 722 cases or 1 in 1 544 University Hospital
 Puerperal infection 2 maternal deaths in 1 584 cases or 1 in 792 General Hospital

7 maternal deaths in 9 306 cases or 1 in 1 329 Rate .07%

In 9 306 cases total maternal deaths 26 or 1 in 358 — Maternal death rate .28%

Causes of death Myocarditis 2 eclampsia 6 puerperal infection 7, placenta previa 5 abruptio placenta 1 post partum hemorrhage 2 spinal anesthesia 1 ruptured uterus 1 chronic nephritis 1

Maternal deaths numbering 21 in 7 722 obstetric cases are included.

deaths. A total of 134 sections had four maternal deaths, three per cent rate of mortality, while the seven fetal deaths make a rate of 52 per cent. Placenta previa incidence is 1 in 166, ablatals 1 in 772, eclampsics 1 in 226, and section was performed once in 58 cases. The increased use of section in many of these complications has markedly reduced maternal and fetal mortality.

Table II covers a three year period, with resulting statistical data. You will notice the increase in relative use of forceps—as high as thirty-three per cent in 1936. Version incident although low is still high in fetal mortality. The same holds true with breech delivery.

In maternal deaths for these 1584 cases three might have been prevented, possibly the eclamptic and the infection cases.

The complications next shown demonstrate a reduction in incidence which also tends to reduce the incidence in stillbirth. In regard to sections, our incidence took a great jump, but without any maternal mortality it must be assumed that it saved some lives, inasmuch as all complications were reduced in incidence of maternal and fetal deaths (Table III).

Fetal deaths, stillbirths and postnatal, seem to indicate that better prenatal care might have saved the premature infants from fatality.

Hospitals associated as ours (Syracuse University and Generals), cannot help but have an increased incidence in the use and selection of section as a means of delivery in those conditions where any other method would increase the hazards of mother and child. A consultant's work requires the selection of the best method to be applied to the case in hand and he acts upon that theory. Naturally as true physicians, we all do likewise.

Episiotomies are shown in relative frequency together with first and second degree tears. This item, I believe, requires closer study in the practice of us all.

While the incidence of puerperal infection death is about doubled in these figures it only involves two deaths, but at the same time, they die from infection and that is where our technic should be faultless.

The total maternal deaths—26 in 9306, an incidence of 1 in 358, and a mortality rate of .28 per cent—compare very favorably with statistics elsewhere.

Can we as general practitioners and specialists set our sails in the trends of modern obstetrics and travel safely? Is it all clear sailing or must we always

use our best judgment with the case presenting? The latter surely.

What can we learn from these statistics of eighteen years in private and ward work at the University and General Hospitals?

We have learned that podalic version, a very necessary form of delivery at times, has been used considerably less. The incidence of this procedure having been reduced from 3.4 to 1.2 per cent, a reduction of about three hundred per cent and fetal mortality reduced from twenty-six and a half to ten per cent.

When version was at high tide, 1921 to 1932, the mortality rate of version deliveries was very high, but in later years, from 1929, when obstetrics became more of a specialty, the fetal death rate declined rapidly until at the present it is at ten per cent. This is still too high, as DeLee considers six per cent the proper rate.

The incidence of breech cases was reduced from 3.75 to 1.8 per cent but the fetal mortality rate is still very high—twenty per cent and according to DeLee, it should be about five per cent. While there is at present no procedure which can vary the incidence of breech, a better prenatal care of the mother may make these cases less frequent. Our technic should be improved by "watchful waiting" for complete cervical dilatation and maintaining flexion of the head in delivery.

One of the greatest trends in obstetrics has been the use of forceps, nine and one-half to twenty-six per cent in fifteen years (averaging 17.3), and increasing at the General Hospital from eighteen to thirty-three per cent, averaging twenty-three during the last three years. A discussion upon forceps could be very lengthy, but I will simply state that forceps have in many cases safeguarded the lives of both mother and child, but too often are used to save time for the hurried physician, endangering the patient with resulting lacerations or prompted episiotomies.

The incidence of episiotomy has greatly increased. Needless to say there are indications for this operation, but also there are cases where this operation should never have been done. One slit ahead of the baby, seems to be the slogan of some doctors, in handling para cases.

Stillbirth rates vary according to the

difficulty of the cases and the method employed in their delivery. This lowered rate is properly credited to a better selection of method of delivery in those borderline cases, requiring the best judgment in procedure—4.4 to 2.3 per cent with postnatal deaths from six to 3.5 per cent.

With world mortality rates as high as they are in section delivery, our increase in section procedure also must be looked upon critically. After such an examination of the records, we find a marked reduction in maternal mortality, from three to 1.7 per cent average for all sections.

The use of cesarean section as a method of delivery has come to the fore with great rapidity in the last few years. There is no obstetric procedure aside from the treatment of eclampsia about which so much has been written. Most of these papers state mortality rates which vary from fifteen to as low as one per cent in fairly long series of cases.

In 9306 obstetric cases, section was performed in 224 cases or 2.4 per cent. Of late this rate has risen to 5.7. The mortality rate fell from three per cent to an average of 1.8 and if we limited our count to the last 100 considered, the mortality rate would be nil. Section, when properly performed upon cases to safeguard the lives of mother and infant, loses the high death rate and becomes a very

valuable procedure in the saving of human life. Unquestionably there are too many performed where the method of delivery should have been otherwise and unquestionably there are too few done where there should have been section performed.

Poor results in obstetrics are not caused by the use, but by the abuse of obstetric surgery.

Watchful waiting is an essential virtue in obstetrical management, but look out for criminal procrastination just around the corner.

The number of eclampsia cases reduced in frequency from one in 226 to 264, the mortality severity, one death in 1544 compared to 1584.

The incidence of placenta previa was reduced from one in 166 to 518, the mortality rate disappearing almost entirely.

Ablatio placenta decreased from one in 772 to 792. Puerperal infection frequency increased from one in 1544 to 792, this being the mortality rate.

Voltaire has said, "Perfection is attained by slow degrees, she requires the hand of time." Herbert Kaufman made the trite saying, "If old ways were best, there would be no room for betterment. In an age of progress you can never be sure of yesterday's judgment and today is but a threshold. The land of promise is ahead."

123 WINDSOR PL.

TO AID DEAF CHILDREN

Governor Herbert H. Lehman July 5 appointed seven of the thirteen members of a temporary state commission, created by the last Legislature, as a step looking toward bringing about an improvement in the care of deaf children. The other six on the commission are members of the Legislature, appointed by Speaker Oswald D. Heck, of the Assembly, and Senator Jolin J. Dunningan, president pro tem of the Senate.

The commission is specifically authorized to examine, report on and recommend measures to improve facilities for the care of hard of hearing and deaf children and children liable to become deaf. The Governor's appointees include Dr. Edward S. Godfrey Jr., State Commissioner of Health, and Dr. Frank P. Graves, State Commissioner of Education, as ex-officio members. The other five appointed by the Governor

are Dr. Augustus J. Hambrook, of Troy, chairman of the committee for deaf and hard of hearing of the State Medical Society, Miss Estelle E. Samuelson, executive secretary of the New York League for the Hard of Hearing, Inc., and member of the board of managers of the American Society for the Hard of Hearing, Dr. Emily A. Pratt, supervisor of eyes and ears, State Education Department, Albany, Dr. Edmund Prince Fowler, director of research and clinics, New York League for the Hard of Hearing, and Captain Victor Skyberg, principal of the New York School for the Deaf.

The legislative members are Senators Livingston, Rogers, and Hastings, Assemblymen Miller, Black, and one Assemblyman yet to be appointed. The Legislature appropriated \$5,000 for the commission expenses.

Preventive Medicine

Preventive Medicine and Tuberculosis

CHARLES H. GOODRICH, M.D. Brooklyn

We are here to initiate among our fellows in the Medical Society of the State of New York, the campaign for Preventive Medicine, suggested to and adopted by the House of Delegates as a prime duty and effort for the current year. Here begins a series of talks to District Branches, each one of which will bring before our members a specific problem in prevention. We shall feel honored and encouraged if you will follow these addresses as published and lead your respective county societies into vigorous activities. May these efforts of yours awaken the profession and public to the advantages of prevention and early elimination of disease (which is realistic prevention) so that a new era may dawn. In this new day we have only to apply knowledge long possessed. However, the public must appreciate the advantage of preventive medicine, else how can we practice it? Directly and indirectly we should popularize this new type of practice largely by the written or spoken word and graphic illustration. Speak of it to lay audiences whenever possible—always *urgently* and *dramatically*!

In all this we will be giving new life to the work of State Departments of Health and Welfare. From the evidence in hand I can assure you that these departments will afford us enthusiastic cooperation.

We spoke of presenting specific problems. What practical value could evolve from generalization? One by one outstanding examples can be discussed with the hope that the massing of evidence, along a large front battle line, will some time render obsolete the desire to cure or be cured of an *advanced* disease, because of a *unified* desire to anticipate such occurrences.

We present a few remarks about the most protean disease extant. Old Proteus was a marine god who could assume any form or shape he chose. Hence he was variable, in form, color, and agility. Thus when we say most "protean disease" 100% of you have guessed "Tuberculosis." Known

to have existed five thousand years, probably longer, its pulmonary manifestations were described by Hippocrates (460-377 B.C.) under the name *Phthisis*.

That it was a communicable disease was believed by Isocrates, a contemporary of Hippocrates. The doctrine of infectivity was not well developed in the mind of physicians for centuries many holding the conviction that heredity was the cause. Sylvius (1614-72) described what he called "tubercles" in the lungs which gave origin to the term *Tuberculosis*. In 1700 Mag-netus gave a minute description of a military tubercle. Morgagni (1682-1772) wrote of his dislike in dissecting bodies of tuberculous persons because of "fear of infection." Thus was the way paved for Laennec (1781-1826) to unquestionably establish the beginning of the modern conception of the unity of tuberculous lesions. Laennec also considered it dangerous to do postmortem examinations and insisted upon precautions. He ultimately succumbed to the disease traceable to an injury at necropsy. Villemin in 1861 published proof that tuberculosis was specific and inoculable disease. Then can Koch in 1882 to demonstrate his tubercle bacillus.

Since that Red-letter day tremendous efforts have been made to cure, arrest, remove and prevent tuberculosis. Of all this you have knowledge stored and available upon demand. Reliable literature is massed in every medical library. Health departments of States, counties, cities, towns, and villages, serve capably. Their efforts, with the cooperation of practicing physicians, have resulted in the reduction of mortality and incidence. With our reduction in mortality we must remember that this is *not necessarily* synchronous with reduced incidence for persisting cases are much greater in number than the death rate indicates, especially under modern treatment and care. Despite zealous efforts tuberculosis remains the most insidious, universal,

Delivered at the Annual Meeting of the Sixth District Branch of the Medical Society of the State of New York, Oswego, September 21, 1937

kaleidescent disease, the focus or foci most commonly discovered in advanced degrees of degeneration or disintegration. Its ravages follow civilization especially where we are civilized in large massed groups. In proportion as men have dwelt on mountain or prairie, living largely out of doors, greater freedom from infection is found.

In organizing a renewal of the campaign for the prevention or early recognition of tuberculosis compare our "man-power" to that of a foot-ball team. The Health Departments, financed and directed by the state and local governments, furnish the runners who cover much ground, the half-backs and full-back, and the quarter-back who calls the signals. What can they do against the 5000 year old tubercle bacilli deployed all over the field, without a strong scrimmage line? With the general practitioner as center-rush, scent-genologists as guards, surgeons at tackle, and specialists on the ends we may have some chance of winning.

Heartly cooperation is therefore most desirable.

How *elusive* is the havoc wrought by tubercle bacilli has often been told. Twenty-five years ago when "nervous prostration" was a common diagnosis, a Minneapolis neurologist saw such a case with an apical lesion which proved to be tuberculosis and was successfully treated. Thereafter he found twelve cases of pulmonary tuberculosis in his next fourteen "nervous prostrations," and instituted rational treatment.

We are told, on exceptional authority, that over ninety different diagnoses have been formerly made to indicate cases of tuberculosis—all of them misnomers or errors. Perhaps the most outstanding is "pleurisy" which reminds us that all pleurisies in children or young adults should be suspected of tuberculosis.

We are prone to forget or have no opportunity to discover that tuberculosis is common among *elderly* persons. It usually remains unnoticed or is considered merely chronic bronchitis or asthma by the family. This fact is one which we should broadcast to the public. With physical signs, positive x-ray findings, and bacilli in sputum, these precious old people are carriers to all and especially to the children of the household. Let us examine the chests of the aged with extraordinary care and carefully classify and treat open cases as carriers menacing

others. Most old people are mellow and considerate enough to cooperate.

Regarding the environmental precautions routinely required in homes, factories, schools, offices, and all public places, it is unnecessary to dilate before this audience. It is enough to urge that discernment, courage, persistence, public spirit, and personal work be developed by all physicians in every community to secure these primary hygienic provisions for safety for all of our neighbors. The dangers in unregulated milk supply must also be overcome. Tuberculous cattle must be eliminated because infected meat is sometimes sold by unscrupulous butchers.

The positive preventive measures applicable to all children and adults alike are

1 Nutrition of the highest order sagaciously balanced

2 Rest in full doses every day

3 Air as fresh and pure as is possible with frequent deep breathing

To intelligently start on our campaign of prevention we must recall that most original infections are acquired in childhood. It has been established that most children of the working class in cities are tuberculized before the age of fifteen. This is where our hunt for early lesions should start. And while we are starting remember that wealth and luxury do not protect the spoiled or hot-house child. We must remember that tuberculosis in the child does not always appear first in the lungs. Bones, joints, tonsils, lymph-nodes, peritoneum, and gastrointestinal tract must be under suspicion. Even in adults the lungs may be uninvolved. Six years ago came a plump rosy, farmer's wife to the Methodist Hospital in Brooklyn for treatment of a tumor of the chest wall. Operation revealed tuberculous chondritis of costal cartilages. She was discharged cured after two generous excisions and there has been no local recurrence. Two years later she developed a tuberculous osteitis of lower cervical and upper dorsal spine. Immobilization with a tibial bone-graft and plaster jacket cured this lesion. She is still fat and rosy and three months ago failed to show any x-ray or other evidence of tuberculosis of lungs.

We all know that certain "losses" occur early in tuberculosis.

Loss of appetite—no hunger

Loss of color—no rosy pink skin

Loss of weight—no curves—only angles

Loss of energy—tired with little or no reason

Two or more of these subjective symptoms should lead us to suspect tuberculosis, especially in childhood. This holds also in adolescence and early adult life (at least up to thirty). This is the simplest, crude rule for discovering tuberculosis in its early stages—which is quite comparable to the prevention of most other diseases. Let us therefore, for our present purpose, broaden the definition of "prevention" in tuberculosis. The case detected in early stages and readily arrested (or cured) may reasonably be regarded as a prevented case—provided a competent follow-up scheme follows adequate treatment.

The general practitioner at present has the largest opportunity for discovering early tuberculosis. To his attention will be drawn loss of appetite, or of energy, or of weight or of color. Loss of appetite or energy may be reported by patient or by parents. Discovery of loss of weight or color will more often be left for the physician. Any combination of these "losses" should inspire careful, thorough, physical examination of the disrobed patient, not "just a tonic for you are run-down." If no definite cause can be assigned, even if lungs seem clear of physical signs, a *cutaneous tuberculin test* should be applied and an x-ray film of chest should be taken to "exclude" pulmonary tuberculosis. In the history taking of such a case, care should be taken to discover possible contacts with existing tubercular cases. This may require diplomacy but is important. However, the question of contact should begin at the known existing case radiating from this point.

Thus we arrive at one factor in prevention which we should emphasize professionally and publicly, the regular complete periodic examination of all persons who are or who have recently been in contact with a known open case of tuberculosis early or advanced, whether such contacts are in home, factory, office, school, hospital or elsewhere. This calls for an elaborate, expensive program and can only be assured by definite continuous cooperation among health departments, physicians, lay-organizations, and the public generally. Such examinations are of definite economic value and self-sustaining persons and families can look upon them as insurance reasonably priced when paid for in fees commensurate with those prevailing in the community. For those in the group who are able to pay partially, special office-hours can

be held for examinations at a moderated price. For the indigent, the state or community health department should pay the examiner a minimum price to be determined upon by conference between the department and the county or state medical organizations. We believe that the greatest cooperation can be obtained by engaging the active interest of the physicians of the state, and that ultimately, if this work at minimum fees be sent to their offices, there will be a greater advance in the prevention of tuberculosis than by any other method of examining contacts. That this *seems* to mean much self-sacrifice for physicians is unquestioned. However, we must here prove our devotion to the principles of altruism so long a feature of the average physician's life. Nor must we forget that some measure of success attends the business principle that large volumes of services at small returns often compare favorably with small amounts of service at standard prices. The havoc in mortality and morbidity attending free contacts without examination is well known to those who have studied long service of cases. In one instance cited by Sir Robert Philip—the original patient had fourteen family contacts who were infected, six of whom had died at the time of final record. That tuberculosis is a disease of households has long been known. The full significance of this has only dawned upon us in recent decades. Hence the logic of periodic examination of all contacts in the home of the patient, among visiting relatives and friends, and fellow-workers.

The next preventive factor to emphasize may overlap the examinations of contacts. So be it—as it is the *measure of greatest importance*. Intensive searching for early cases in the *minimal stage* has often been recommended. Methods to accomplish this have been suggested. Henry Vaughan's "Detroit Plan" patterned after the successful Diphtheria campaign of 1928 to date, but more intensive, extensive and expensive, seems the best thus far. He told us about this at Atlantic City and we hope that you will all read his article studiously. (This has been published in the *Journal of the American Medical Association*, September 4.)

Eight hundred physicians of the Wayne County Medical Society are cooperating by agreement to examine cases, make tuberculin tests, and provide x-ray films where cutaneous reactions indicate infection or physical signs indicate lesions. Many of the four hun-

kaleidescopic disease, the focus or foci most commonly discovered in advanced degrees of degeneration or disintegration. Its ravages follow civilization especially where we are civilized in large massed groups. In proportion as men have dwelt on mountain or prairie, living largely out of doors, greater freedom from infection is found.

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The "Detroit Plan" seems so important that in our Saratoga address to the Annual Convention of Health Officers and Nurses, we recommended an examination of its method and workings by a joint committee from the State Health Department and the State Medical Society "at the arena in Detroit." The Commissioner has appointed a Committee from the Department and ours was approved at the last Council meeting.

We have thus emphasized

1 Team work—the need for cooperation of our Society with the State Health Department.

2. The early tuberculization of children usually the primary infection

3 The unsuspected tuberculosis of the aged

4 The earliest symptoms—losses (W-A-C-E.) Weight, Appetite, Color, Energy

5 Thorough physical examinations of suspicious cases (Not of very great value)

6 Tuberculin tests All positive reactions should have x-ray films of chest at any age, especially ages fourteen to thirty years

7 Roentgenogram of lungs if symptoms, appearance, physical signs, or cutaneous test suggest possibility of tuberculosis

8 The significance of tuberculosis as a communicable household disease

9 Importance of control and management of cases Isolation of all open cases either in institutions or at home with rigid sanitary control

10 If there is no lung lesion look elsewhere especially in children

11 Suspect all chronic fluctuant or semi-fluctuant tumors in children or adults

12 Periodic examination of all contacts including x-ray examinations of chest

13 Intensive early case-finding to prevent and halt spread of tuberculosis—saving lives and private and public moneys

14 The importance of the Detroit Plan

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D., DR. P.H., *New York City*

Editorial Note Under this title will appear short summaries of 'transition cases' from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

The Child Artist

Here is a story of a child artist which has its importance because it shows how conflicts can be avoided and mental health conserved—incidentally also how genius is developed instead of being ignored or hampered.

One evening, many years ago, long before I specialized, responding to a telephone call, I went to see a little girl of four who was suffering from measles. She also had a very sore throat and high fever. On account of the complete eruption which covered much of her skin it was impossible to distinguish her features. But that her complexion was brown could be seen by her very dark hair and vivid black eyes. The first impression was that she was good-looking—and this was fully confirmed later.

She was not in bed and although I endeavored to examine her as thoroughly as possible she paid but little attention to me. She was busy drawing. She knelt on a chair and did her work on the table. Several writing pads were piled up near her and as she filled one page after another, she threw them down on the floor which was littered with these white sheets covered with pencil pictures. Dwelling in another world, nothing seemed to awake her from her dreams.

Her mother felt very ashamed and apologized by saying that she allowed the child all this paper only because of her illness. Otherwise she would not let her spoil so much valuable material. If left alone this girlie would soil all the walls with her fancy and foolish stuff and carve the good furniture with her father's pocket-knife. Oh mother knew how to punish the little rascal for her sins.

Indeed, upon closer inspection, I noticed some wonderful carvings on the corners of the table. There were some heads full of life. And as I picked up the drawings from the floor I gasped. I saw extraordinarily well done works of great art. Some subjects were sad others gay or satirical. There was the street, alive with houses and peddlers and drunken men, children were playing—and so on.

There was no opposition when I put some of the papers in my pocket.

I came again—and I tried to convince the mother that her child was a real artist, a great and rare artist. But she was offended. She said "Please, do not make fun of us poor people."

Only after I had some of the pictures

dred and thirty public-health nurses are in the field visiting homes and referring all suspicious cases and contacts with known cases to their family physicians for examination. If there is no family physician the nurse presents a card giving names and addresses and hours of all of the physicians in the district (there are thirty-five districts). Solvent people pay the physician's regular fee. Poorer people pay less at a special hour noted on the cards. Indigents receive special cards which provide for free examination. When these cards are sent to the health department for record the physician receives one dollar for his examination including cutaneous test (materials furnished by department), three dollars for x-ray film, and one dollar for re-examination after film is examined and consultation completed with the roentgenologist. Except when the physician himself uses x-ray, all films are made by specialists in roentgenology, members of the Detroit Roentgen Ray Society, who cooperate with the department and the county society. "This society has appointed a committee to which are referred all doubtful and positive films by whomsoever taken, and the committee's judgment is transmitted to the examining physician" (Vaughan).

This campaign began February 1, 1937, following two months of front page newspaper stories and radio dramas. The City Council appropriated two hundred thousand dollars per year for five years to be used exclusively for case finding work. It is expected that this expenditure will save lives, lessen needs for hospitalization, and ultimately reduce the cost of tuberculosis for the taxpayer.

While it is true that there are many danger spots in tuberculosis it was decided in the program to limit the intensive case-finding efforts to three definite undertakings. Into every physician's practice come those individuals with a history and appearance which suggests tuberculosis. They may be considered the suspects for whom an examination is indicated as a possible means of revealing suggested signs of this disease. The tuberculin test will generally establish the presence or absence of infection with the tubercle bacilli. This, followed with an x-ray of the chest of the positive reactor, will reveal in detail much that cannot be detected by physical examination alone. Then, a special search should be made of the contacts to the active case of adult type tuberculosis. Household contacts come under immediate suspicion on two accounts—first, if the person

already found is a positive sputum case, one or more of the other members of the household may have acquired tuberculosis from him, second, if the person already found does not have positive sputum, one of the other members of the household may be the source of infection and should, therefore, be detected. There are certain groups in the community who may be regarded in almost the same light as household contacts. Such, for instance, as residents in those districts of the city in which the tuberculosis mortality is high. These areas should be well-known to the health department and information regarding same should be made available to all cooperating physicians. Thus, the immediate objective has been to reach these three groups, first, those in the practice of the physician whom they suspect of being tuberculous, second, household contacts of definitely diagnosed cases, and third, persons residing in areas in which the mortality from tuberculosis is excessively high (Vaughan).

The results of this work (to May 31, 1937) are most encouraging. Over thirty-five thousand tuberculin tests were done with twenty-two per cent positive. Sixty-nine per cent of those had completed x-ray studies and 242 new active cases had been discovered, of which forty-three per cent were minimal.

In one large mid-western county, two and one-half million dollars of public money is being spent annually to hospitalize tuberculosis cases. This cares for twenty-five hundred hospital beds,—more than twice the annual number of deaths. In the past few years only 13 per cent of cases reported to the health department by the family physician was minimal. When, to this, is added the follow-up of contacts and school examinations by health department, the per cent of minimal cases is raised to 20. There are but few American communities which report as high a per cent of early cases. Four out of five cases are already either moderately or far advanced. The average period of hospitalization for the early case is eight to nine months. The advanced and far advanced case requires twice that period of hospitalization. It is at once apparent that by increasing the per cent of minimal from 20 to 50, the hospital load would be proportionately reduced and the community would save more than one million dollars in annual hospital bills. In other words much, if not all, of the money being spent for hospitalization should never be spent. There should be no cause for its expenditure. Finding the early case will reduce the hospital load and expense, and save money. The diversion of a fraction of this saving in hospital bills to adequate case finding facilities would be good economy.

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EDITORIALS

On Guard!

There was intense professional consciousness of the threat to high quality medical care prevalent among us in the Spring. Due to the summer vacation and the quiet that has resulted from the recess of the legislatures, and the paucity of articles on this topic in the news columns of both lay and medical press, this consciousness seems to have abated somewhat, and we fear the profession is lulled into a feeling that the issue is past.

The discussions and clarifying conceptions which emanated from the last meeting of our House of Delegates would, it seems to us, have been indicators of competent medical opinion. The reports of the A M A session gave additional evidence that the profession was unwilling to accept any scheme of compulsory health insurance or to invite the government to impose a general scheme of State Medicine upon us. The position we hold is not based upon political or emotional conceptions, but upon a comparative analysis and comparative studies of what we have in the way of delivering medical care to the financially underprivileged, with what is contemplated by measures that are soon to be placed before us for acceptance.

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tion spokesman, United States Senator J Hamilton Lewis came before the A M A House of Delegates and invited consideration of a scheme of Federal State Medicine applicable to those of the public who are already government wards under the Social Security Law. Since then, irrespective of any comments or critiques of his proposals from the profession, the Senator has introduced as an amendment to the Social Security Law, a Federal medical scheme *not limited to the government wards under the present Social Security Law*, but applicable to the public generally. This scheme while introduced for its educational and propaganda value seems not to have much legislative support.

Meanwhile, reports coming from Washington seem to indicate that compulsory health insurance holds an important place on the legislative agenda of some Administration circles. This is both disturbing and discouraging to organized medicine which has held out its hand in an unequivocal gesture to be helpful in shaping new legislation if such is deemed necessary to bring medical care to the underprivileged and which has taken at its full face value the President's pledge that no drastic change will be made in the American system of practice without

framed and exhibited in a nearby church house, the St Mark's In The Bouwerie, and there was some beautiful comment in the press, did the parents believe that my praise was genuine

I encouraged the child to continue her work. I had her spend several hours daily in my house, in the company of my own child and of a few other children, with full freedom to do as she liked and, of course, without correcting their work in any way. Now the little artist had drawing and painting material at her full disposal.

Then came other events.

I sent one of her splendid drawings to a magazine and it was published, if I am not mistaken, on the front page.

I brought her and her work to Robert Henri, the celebrated painter who was my friend and he became her admirer. He was just then trying to gather nine other artists beside himself in order to exhibit

together with them at the MacDowell Gallery in New York. He had already his own pupil, George Bellows, who had achieved great fame, and some other well-known names. This seven-year old child was added and another, somewhat older one, a little boy with the name Burk, who was destined to become, in later years, a well-known cartoonist.

How I succeeded in getting a scholarship for her in an art school and what she did in her further career is another story which does not differ from the usual biography of professional artists.

What is interesting is that parents do not always recognize their children's gifts. It is in their hands to make them or break them. Also the humility of the parents belonging to the working class.

Although all children draw, most are swallowed by mediocrity in the future, when older. But, all should have a chance.

The Shadow

A South American woman had divorced her husband to whom she had been deeply attached and to whom she had given a child. He had become a drunkard and was not supporting the family.

Her second husband, with whom she had no offspring, was younger than herself and quite sober, but was more interested in his business than in sex intercourse. He was an expert in dresses and the first time he saw her undressed he mumbled "thirty-eight," a remark that gave her a thrill because she was several years older. But when she asked him "How old do you say I am?" he replied "I didn't speak about your age, but about the size of your waistline."

From then on she hated him.

On the one hand she was constantly afraid that this comparatively young man would leave her. On the other hand she was haunted by a terrible remorse concerning her first husband and by a desire to see him again, which she vainly tried to chase. Whenever she had relations with her spouse, which was not often, the image of her old love interposed itself between her and him. It was the feeling described by Zola in his famous *Therese Raquin*, in a reversed fashion. Instead of hating the delusion and being horrified by it our patient was thrilled with delight. She would close her eyes and see the other one, feel the arms, the chest, the body of her former husband. And she

fondled and kissed with such frenzy that her present partner was bewildered and returned the caresses with more excitement than he would have shown under ordinary circumstances and if left to his own unprimed feelings. She lay there thinking of happy scenes and pictures from her intimate life with her first mate. And now she disregarded his drunkenness and even the blows she used to receive once in a while which he regretted when not intoxicated.

She began her story with the words

"I have a bad gallbladder and a bad husband. Excuse me, I meant to say a good husband, a too-good one. I am rather bad. I am not coming for the gallbladder."

As the years passed she sank deeper and deeper into mental depression and self-accusation. Gradually hallucinations developed which tormented her and from which she could not escape. In the course of time she became certain that a definite shadow followed her—her first husband's shadow. She would have liked to be able to roll it up, tie it and put it away—much as it is done in the story by Chamisso, the celebrated French-German poet, I would add.

She was cured by a separation from her second husband, even though she never met the first one again and had to live alone with her daughter for the rest of her life.

611 W 158 St

Ethnologist says American Indians practiced trephining, or brain surgery, thousands

of years ago. They were better known though, for their scalp treatments.

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consultation with the medical profession

Such consultation implies more than a discussion by the profession of an Administration preconceived plan, or a debate on the announcement of a predetermined course. It implies a detailed discussion by Administration authorities on the one hand and representatives of American medicine on the other—to the end that a mutually acceptable plan be formulated by both groups *together* after discussion, and then presented to the general public and to the profession.

In this state Robert F. Wagner, Jr., is a candidate for the State Legislature on an announced platform to sponsor a compulsory health insurance bill in this state, and he is alleged to have already drafted it. While in Washington, his father, United States Senator Robert F. Wagner, is reported as planning a national drive for compulsory health insurance as a further development of the Social Security Law.

It is not our purpose here to argue any part of these proposals, but it is our purpose to put these indicators of the trends in public affairs before the profession for their serious consideration, and thoughtful efforts to protect the *high quality of medical care* which American medicine has evolved and protect it from the devastating influences which these proposals, if enacted into the law, will bring upon it.

Preventing Tuberculosis

Reduced mortality rates tend to lull the public into a false sense of security with respect to tuberculosis. As Dr. Charles H. Goodrich stated in an address before the Sixth District Branch of the Medical Society of the State of New York last month, fewer deaths do not necessarily indicate lower incidence. The large number of persistent cases should dispel spurious hopes that tuberculosis has been conquered. Prevention and early detection of this disease remain one of the primary tasks of modern medicine.

The physician's role in the prevention

of tuberculosis is essentially educational. He must instruct the public in the elements of hygienic living even though conditions beyond his control conspire to deprive many people of them. In private practice, before clubs and civic agencies, he must preach the doctrine of prevention in the hope that at least part of the seed will fall on fallow ground.

Parents' and teachers' associations are eager for knowledge which would help them to fight tuberculosis. Persuade them of the need for tracing and studying all possible contacts in newly discovered infections and prophylaxis will be immeasurably advanced. The same is true of workers' clubs, which are becoming increasingly health conscious and amenable to suggestions for the check of infectious disease in their ranks.

For practical purposes, the early detection and proper treatment of new lesions are inseparable from prevention. The results of organized activity are most striking in this field. The city of Detroit has shown that it is possible to combine the resources of health departments, private medical practice, and social welfare agencies in a drive on tuberculosis along these lines at relatively small cost.

The "Detroit Plan" for tuberculosis does not differ essentially from its anti-diphtheria campaigns. Suspicious cases discovered in the schools and elsewhere are referred to their family physicians for physical examination, tuberculin test, and x-ray. Well-to-do persons pay the regular fees for these services, poorer patients are examined at special rates, and the county pays a minimum fee for indigents. All known contacts are investigated and cases are hospitalized early. Wherever these or similar methods have been employed, the initial outlay for extra hospital beds has paid substantial dividends in early cures and ultimate reduction of the hospital load.

Besides humanitarian considerations, the social and economic consequences of tuberculosis reinforce the demand for a vigorous, permanent program of prevention. Any such project must embrace

public education in prophylaxis, prompt utilization of the best diagnostic and therapeutic methods by physicians, and friendly cooperation between the private practitioner and public health agencies

Fooling the Taxpayer

One of the most dangerous delusions disseminated by politicians in recent years is that the rich are paying and will continue to pay for relief, social security, and various other welfare projects launched by the government. Direct taxation tells only a small part of the story of governmental finance. By far the greatest part of all taxes is passed on to consumers (preponderantly small wage earners) in the form of concealed taxation and higher living costs. So far the country has "charged" its welfare program. When the time comes to pay, it will not be the DuPonts and Morgans who foot the bill, but the white collar man and his brother in overalls.

Like most schemes that promise something for nothing or next to it, compulsory sickness insurance is a vicious hoax, with the joke on those it purports to benefit. Instead of the promised "complete health service," its victims receive a limited amount of perfunctory care, the inferior quality of which is soon reflected in higher mortality and morbidity rates. Prevention lags, diagnosis is hasty and superficial, and therapy takes the form of standardized prescribing.

Let no one think that this inherently cheap service is cheap in price. Besides the regular weekly deduction from his wages, the worker pays the employer's share in higher commodities' costs and the government's contribution in a host of hidden taxes. A large class of employees pay without being eligible for any returns at all.

If the American worker could see panel practice in operation he would soon realize that its only beneficiaries are the political parasites who profit by every extension of bureaucracy in government. Compul-

sory sickness insurance is a game of political blind man's bluff in which the taxpayer (i.e., the worker) is always "it"

More About Sulfanilamide

As the use of sulfanilamide continues to spread, there is noted a corresponding increase in the number of untoward reactions encountered. True, none of these thus far observed has been of such serious import as to endanger life. Nevertheless, it is becoming more apparent that the administration of this drug must be attended by the close clinical observation of the experienced physician and we feel it incumbent upon us to call these side reactions to the attention of the profession as they are reported.

The mildest of the latest recorded reactions are urticarial lesions limited in distribution.¹ These are found upon areas of the skin which have been exposed to the sunlight for a short time. Longer exposure results in a progression in the severity of the lesion which then assumes the form of macular plaques that soon become confluent and result in a maroon-colored eruption.² Maculopapular eruptions have also been described and hemorrhagic spots have been noted.³ What apparently was a definite anaphylactic reaction following the use of sulfanilamide in a nonallergic person is reported by Salvin.⁴

Fortunately, all of these conditions rapidly disappear when the drug is discontinued. We do know, however, that it is essential to recognize the toxic manifestations attendant upon its use. At present, we can summarize these as photosensitization of the skin, the production of methemoglobin, the production of hemolytic anemia, and gastrointestinal symptoms which may result. Neurological manifestations have been noted and its

- 1 Frank, L. J. *J.A.M.A.* 109 1011 1937
- 2 Newman, B. A. and Sharlit, H. *J.A.M.A.* 109 1036 1937
- 3 Goodman, M. H. and Levy, C. S. *J.A.M.A.* 109 1009 1937
- 4 Salvin, N. *J.A.M.A.* 109 1038 1937

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Eventually, the pharmacology of this chemical will be completely known, but until then, the scattered reports of its use and effects must be studied and given due consideration.

Immunity to Gas Gangrene

The ravages of the Welch bacillus are evident in all walks of life. The child-bearing woman, the farm laborer, the professional motorcar racer—even the patient in the sterile operating field—all are in constant danger of infection from this deadly organism.

It is encouraging therefore, that Penfold and Tolhurst¹ have been able to produce an effective immunity against the *Bacillus Welchii* in animals. Using formal toxoids of the organism which had first been rendered atoxic for mice, they achieved immunity in all their experimental animals. This immunity has been demonstrated to be both active and passive. Their research was primarily conducted to determine whether it was possible to immunize humans with the use of formal toxoids, but this phase of the work is not as yet completed.

If this should prove of value in rendering humans safe from gas bacillus infections, a new field of prophylaxis would be opened. The serum therapy of Welch infections would then largely be supplanted by preventive measures just as diphtheria immunization has almost replaced the extensive use of antitoxin formerly required. We await their further reports with interest.

CURRENT COMMENT

"EVERYWHERE THE MOVEMENTS WHICH BID for men's allegiance are hostile to the movements in which men struggled to be free. The programs of reform are every-

where at odds with the liberal tradition. Men are asked to choose between security and liberty. To improve their fortunes they are told that they must renounce their rights. To escape from want they must enter a prison. To regularize their work they must be regimented. To obtain greater equality they must have less freedom. To have national solidarity they must oppress the dissenters. To enhance their dignity they must lick the boots of tyrants. To realize the promise of science they must destroy free inquiry. To promote the truth they must not let it be examined.

"These choices are intolerable. Yet these are the choices offered by the influential doctrinaires of the contemporary world. Thus those who would be loyal to the achievements of the past are in general disposed to be fatalistically complacent about the present and those who have plans for the future are prepared to disown the heroic past."—A quotation from "The Good Society," a new book by Walter Lippmann. In *The New York Times Book Review* also, we found an interesting commentary on it by Harry Hazlit from which we quote in part "It is governmental coercion he (Mr. Lippmann) contends that is creating the very chaos it purports to conquer. He insists that a managed economy must only mean a censored and managed opinion. He dismisses a planned production to meet a free demand as a contradiction in terms. He ridicules the assumption that there are available omniscient and lovable autocrats to carry out the economic planning. He maintains that such planning is not properly possible except under a military State and for military purposes."—We are inclined to agree with Mr. Lippmann's contentions, and also with the summation of the paradoxical situation which confronts most of us, his opinions on which we have quoted above.

"WE HAVE RENOUNCED THE WISDOM of the ages to embrace the errors the ages have discarded. The road whereby mankind has advanced in knowledge, in the mastery of nature, in unity, and in personal security, has lain through a progressive emancipation from the bondage of authority, monopoly and special privilege. It has been through the release of human energy that men have lifted themselves above the primeval struggle for the bare necessities of existence, it has been by the removal of constraints that they have been able to adapt themselves to the life of great societies, it has been by the disestablishment of privilege that men have risen from the status of slaves, serfs and subjects to that of free men inviolate in the ways of the spirit."—*The New York*

¹ Penfold, W. J. and Tolhurst, I. C. *Med. J. Australia* 1982, 1937

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"BEGINNINGS OF STATE MEDICAL SERVICE in Australia" are described in the *JAMA* of September 25 by its regular correspondent. "With the aim of providing all people, irrespective of the locality in which they are situated or their financial position, with the best medical attention and hospital accommodation when necessary with adequate supervision from a public health point of view, the government of Tasmania is appointing ten physicians who will be attached to the staff of the department of health. The most important duty of the medical officers will be to attend the sick and injured in their respective districts. Preventive medicine will also receive attention, and the duties of medical officers of health will devolve on the new appointees. They will enforce the public health regulations regarding sanitation, dairying, milk supplies, the isolation and treatment of infectious diseases and the control of quarantine. Provision for study leave is included in the terms of appointment. Medicines will be

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"THE PHYSICIAN SHOULD HAVE A definite point of view on war which need have nothing to do with sentiment or emotional reactions. It seems to us that any kind of a war is not in keeping with the philosophy of the medical man. The medical man goes to a lot of trouble getting an education. He has to learn many things of a cultural nature that have nothing to do with medicine, and then he has to learn a lot of things both in theory and practice on how to heal people and prolong life. This does not seem to be in keeping with the ambitions and policies of those who make war. From all the information we can gather warfare tends to kill and cripple. That much property is destroyed in this attempt to annihilate and kill, we realize but we do not feel at the moment that this is our problem"—'It Is So Discouraging' claims a timely editorial in the *Medical Record* of September 15, from which we have quoted in part

"THE GROWTH OF SCIENTIFIC KNOWLEDGE has multiplied the number of things that can be done to prevent and cure disease, but it has also increased the cost of medical service, putting it beyond the reach of an ever-growing number of people

"Modern society everywhere accepts as an obligation the provision of the necessities of life for those who cannot provide for themselves. I don't think that any one will deny that medical service is a necessity of life, and it is only a small step from that to the fact that such service may be made available by the community to those in need"—The words of Dr Thomas Parran, Surgeon General United States Public Health Service in the *New York Times Magazine* of September 26

THE REWARDS OF MEDICINE

Medicine is a path to fortune only for the few. Yet if from the financial point of view medical practice offers to most men little more than a means of livelihood, in its social and cultural aspects the outlook is far brighter. A doctor's life need yield to none in the matter of sustained and varied interest, we read in *The British Medical Journal*. His lot is unlike that of many whose business gives little scope to the higher faculties for he lives in, and by, the exercise of intellectual powers. Gradual im-

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Society Activities

Committee on Workmen's Compensation

STATE OF NEW YORK
DEPARTMENT OF LABOR
ALBANY

New York Office 80 Centre Street

New York
Sept 16, 1937

Dr David J Kaliski, Chairman
Workmens Compensation Board,
New York County Medical Society,
2 East 103 Street,
New York City

Dear Doctor Kaliski

In order to eliminate confusion at hearings on compensation claims which has existed, as to who was responsible for the payment of fees to physicians who are engaged by claimants merely to appear and testify on their behalf, the following rule has been promulgated (Rule No 21-A)

A physician who testifies at hearings or examines claimants or participates in examination for evidential material for compensation case hearing purposes only, may accept fees for such services from claimants

In order to clear up some confusion which has existed in the payment of hospital bills that included services rendered by salaried physicians on the hospital staff, rule No 22 has been amended and revised to read as follows

Hospitals shall render bills for Board and room accommodation, medical and surgical supplies and nursing facilities. Hospitals may render bills for x-ray physiotherapeutic, anaesthesia and pathologic services when rendered by or under the supervision of salaried physicians on the staff. The names and qualifications of all physicians and persons rendering service for which charges are made by hospitals must be included in all bills and all medical and x-ray reports shall be promptly filed with the employer or its insurance carrier and the Department of Labor

I am referring these matters to you for your information and dissemination

Yours very truly,

(signed) ELMER F ANDREWS,
Industrial Commissioner

Public Health News

Transiency—A Public Health Menace

Eradication of tuberculosis as a human epidemic can be brought about only through methods of precision. Recognizing the open case is highly important but it is not enough. Already that case has done his bit to keep the epidemic alive by spreading his disease to others. No passive measures will suffice. An aggressive hunt for the occult spreader is essential. To be productive, the search must be directed to those groups showing high rates of infection. One of these groups is our increasing army of transients

At least one type of citizen in the United States stubbornly defies regimentation, classification, or control. He is the tuberculous transient who has come west seeking a climatic cure, exhausted his resources and now wanders from place to place on foot, on brake rods, or in a dilapidated auto. In jungles, shacks and flophouses he pauses when he must. He has lost his claim as a resident of the home town he deserted, and is not welcomed as a resident elsewhere, since he is regarded as a "bum" without visible means of support, but with a very visible need of relief. He is not, in the main, getting well of his consumption

—salubrious climate notwithstanding. In many instances he is accompanied by his worried wife and half-starved children. Worst of all he is a prolific sower of the seed that causes tuberculosis, for even the respectable, cautious resident cannot escape contact with him directly or indirectly at the filling station, restaurant, tourist camp or lodging-house.

No census has been taken of tuberculous wanderers, but a conservative estimate, based on observations of transient officers, is that their number exceeds 1,000 in the states of Colorado, Arizona, New Mexico, western Texas and southern California. This number, however, includes only the obvious consumptives—obvious, that is, to the non-medical social worker. If a more

Reprinted by permission of *Tuberculosis Abstracts*, October 1937

thorough and precise case-finding search were made, including X-ray examinations, the army of indigent tuberculous in the Southwest would doubtless exceed 5,000.

Sooner or later these wanderers will lose their legal residence acquired in the communities whence they came and very many of them will not gain citizenship in a new locality. Opportunities to earn a livelihood are scanty or non-existent. Indigence is added to their invalidism and with no settled residence they are nobody's responsibility. This is calamity enough for the unfortunate victim, but it is very bad in another sense. In his extremity the patient moves on, perhaps crossing state boundaries, but surely spreading his disease in the new regions he visits in the hope of finding some relief.

The recent business depression has noticeably aggravated the problem of the migrant tuberculous. Failure to make a living at home has started a vast number of new transients on the road, many known and occult cases of tuberculosis among them. At the same time state and community resources for public health and welfare work have dwindled.

Recognizing the gravity of this situation the National Tuberculosis Association called a conference last year at Santa Fe to which public health and welfare workers from the Southwestern States were invited. The conclusion reached was that the problem was too great for solution locally and the recommendation was made that organized federal aid be requested.

Already the Emergency Relief Administration has provided its transient shelters, hastily constructed concentration camps set up in an effort to "freeze" the army of aimless wanderers. Provision was made for those who were ill, and of this number about a third were found to be suffering from tuberculosis. These were segregated and heroic service was rendered by local doctors and all available nurses working under serious limitation because of inadequate room and equipment.

Hard times will always emphasize the problem of the sick indigent, homeless transient, but the problem itself antedates hard times and will persist through prosperous ones as well. The menacing public health aspects of the situation are still to be faced. The medical profession can render incalculable aid toward lessening this evil by damming up the transient stream at its source. The advantages of certain climates in the treatment of pulmonary disease are readily admitted. But climate is only one of the essentials in recovery from pulmonary tuberculosis and by no means

the most important. Comfortable living, with rest, peace of mind, adequate nutrition and skilled medical care are the prior requisites. If physicians will preach these doctrines in their communities as well as to their patients the melancholy hegira of unsuitable cases will diminish. If they will with insistence point out the increasing provision of excellent sanatoria near at hand in their own localities, at the same time demonstrating the growing percentage of arrested cases discharged from these institutions, they will make a contribution to public health protection of genuine significance.

But the tide will recede slowly and meanwhile there is the army already enlisted in this great migration. How to prevent its continuing to spread disease is a question that is perplexing the most experienced health and social workers. Forcible detention is in bad odor—tuberculosis is not yet regarded by the public as seriously as leprosy for example. Deportation to point of origin would not solve the larger problem and for some patients who have the fixed idea that their very lives depend upon living in this or that climate, it would be inhumanly cruel to send them home, wrong though they might be. To erect sanatoria in resort areas would result in luring persons from all parts of the country, and thus aggravate the evil. Families would come with them and, not being eligible as patients, would be dumped upon the mercy of social agencies in cities and towns nearby, already swamped with appeals from their own people.

One proposal made is that colonies be established in the great open spaces for entire families. But the states where they would be most likely to settle are least able to support such an enterprise and the federal government can hardly be expected to finance it, at least not until the broad problem of transiency is tackled through sweeping legislation such as that proposed in the Trammell-Wilcox bill recently before Congress. Self-support of such a colony is a fatuous hope and it seems unlikely that many families would consent to be herded together in that manner. And if such colonies, because of good management and by providing attractive living conditions should succeed, we would again be confronted by the problem of preventing the influx of families from all over the country who had better remain where they are.

At present the United States Public Health Service is studying the situation to see what facilities are available. The situation is probably not as hopeless as it might have been a few years ago. One advantage

is that the country generally is now better equipped to care for its tuberculosis residents near at home. Another advantage not to be had a few years ago are modern weapons that are now used to combat tuberculosis. Isolation of the carriers in sanatoria is, of course, the crux of the situation, but there are also new developments in diagnosis and treatment which make the control of tuberculous transients, even in the absence of adequate beds, more workable than some years ago. For example, collapse surgery enables the otherwise bedridden patient to carry on light work, and this treatment also renders him bacillus-free which means that he promptly ceases to be a danger to others. Fifty per cent or more of all tuberculous patients can be successfully "collapsed," and so-called ambulatory pneu-

mothorax treatment is now an accepted procedure. There are furthermore better methods of case-finding. It would not be Utopian to propose that all transients be X-rayed, which would lead to the discovery not only of obvious cases, but also of those in the earlier stages who by prompt action could soon be restored to health.

"No home is safe until every home is safe," is an old slogan used by tuberculosis associations. Until we have come to grips with the tuberculous transient, we cannot hope to guarantee safety to the rest of American citizens.

Reference

Kleinschmidt Sick, Broke and Foot-loose, *The Journal-Lancet*, April 1937

Drs Van Volkenburgh and Stebbins Promoted

V. A. Van Volkenburgh, M.D., Dr.P.H., has been promoted to the position of Assistant Commissioner of Local Health Administration, and Ernest L. Stebbins, M.D., to that of Director of Communicable Diseases, effective September 16.

Dr. Van Volkenburgh, formerly Associate in Epidemiology at Johns Hopkins School of Hygiene and Public Health, was appointed on the staff of the New York State Department of Health several years ago and has since served successively as assistant

district health officer, epidemiologist and district health officer. For the past two years he has been in immediate charge of the Ithaca Health District.

Dr. Stebbins joined the Department staff in 1934 having had previous experience as assistant epidemiologist with the Virginia State Board of Health and as health officer of Henrico county, Virginia. Since March 1936 he has been in charge of the Rochester Health District—*Health News*, September 27, 1937.

A WIDER STUDY OF LEPROSY

The Leonard Wood Memorial announces the appointment of Dr. George M. Saunders as director of a department to make a special world-wide study of the environmental factors that affect the lives of lepers and that might assist in treatment. Dr. Saunders is a graduate of the University of Wisconsin and the Harvard Medical School.

In 1931 he headed an expedition to Yucatan to study malaria and amebic dysentery. For the last five years he has been director of the Yaws Commission in the British West Indies under the auspices of the Rockefeller Foundation.

The Memorial believes that nothing that has ever been done in the campaign against leprosy is so promising of results as the program now inaugurated. For several years, epidemiological studies have been carried on under the direction of Dr. Jose Rodriguez at the Memorial's leprosarium

at Cebu in the Philippines, but because leprosy exists in almost all parts of the world and under such differing conditions, it is not sufficient to work in one place only; scientific research should be carried on simultaneously in many places, widely separated to furnish comparative data.

The United States, with considerable leprosy in southern states, Puerto Rico, the Virgin Islands, and Hawaii, is the first country to create its local unit of study. The Public Health Service has appointed Dr. George W. McCoy as director of these studies.

As October 9 was the anniversary of the birth of General Leonard Wood, who was instrumental in starting this work, the Memorial felt that it is especially appropriate to ask all who can do so to help eradicate leprosy through the contribution of the additional funds needed to carry on their enlarged study.

Medical News

Cattaraugus County

DR ERLY HARRISON MADISON, of Olean, who died on September 15, had been City Physician for seventeen years. He would have been seventy on October 29.

Cayuga County

DR. LEO F SIMPSON was the guest speaker at a meeting of the Cayuga County Medical Society on September 16 at Auburn. Doctor Simpson gave an account of his visits during the past summer to hospitals in Norway, Sweden, Denmark, Germany, France, and England and the various methods and practices of physicians in those countries. Dr Donald Green presided.

Chautauqua County

THE ANNUAL FALL MEETING of the Chautauqua County Medical Society was held September 15 at Newton Memorial Hospital at Cassadaga, where the members were guests of the board of managers at dinner. A business and scientific session was held during the afternoon. Dr Werner J Rose gave a paper on "Conditions Above and Below the Diaphragm that Simulate Heart Disease." Dr W G Hayward is president of the county society, the other officers being Vice-president, Dr C E Hallenbeck, secretary, Dr Edgar Bieber, treasurer, Dr Frederick J Pfisterer.

DR. WARREN D WELLMAN, one of Jamestown's oldest practicing physicians, died on September 18, aged eighty-two. He had practiced medicine there forty-nine years.

Cortland County

AN INTERESTING TALK on some of the comparatively rare complications occurring in obstetrics was given before twenty-five members of the Cortland County Medical Society and visiting physicians by Dr Ward L. Ekas, associate professor of gynecology and obstetrics of University of Rochester school of medicine, on September 17. Dr Ekas' subject was "Management of Some Difficult Obstetrical Problems." A general discussion followed the talk which was given at the Cortland Free Library auditorium.

Dutchess County

A SCIENTIFIC DISCUSSION ON "Uterine

Displacements" by Dr Walter T Dannreuther, of the Post Graduate hospital, New York city, was the feature of the regular meeting of the Dutchess County Medical Society in Poughkeepsie on September 8.

Erie County

DESIGNED TO ARM PHYSICIANS to combat attacks on their profession, a comprehensive course in public speaking was launched by the Erie County Medical Society last month.

"Physicians usually are unwilling to express publicly their views concerning repeated attacks on the medical profession," explains Dr Harry C Guess, chairman of the society's educational committee, who arranged the course.

"The purpose of the course is to train them to become highly articulate and more fluent in speech, and to overcome their natural reticence that they may combat the arguments advanced by lay agencies seeking to foist their particular ideas of scientific medicine upon the public."

A score of physicians have signed up for the course, which opened September 23, under the direction of Stanley D Travis, assistant professor of English at University of Buffalo. Classes will be conducted each Thursday until December 2. The course is open to any member of the society.

THIRTEEN STATES AND THE province of Ontario were represented in the registration of thirty-one practicing physicians in the seventeenth annual post-graduate course in medicine and surgery, held at the University of Buffalo School of Medicine in September. The doctors enrolled were graduates of twenty-five different colleges and universities.

Kings County

THE WOMEN'S AUXILIARY TO THE Medical Society of the County of Kings, Mrs Edwin A Griffin, president, gave a bridge on October 6, at the home of Mrs Frederic E Elliott. Mrs Maurice J Dattelbaum was chairman.

THE ASSOCIATION of MILITARY Surgeons of the United States invited Dr William Z Fradkin, of the Jewish Hospital of Brooklyn, to exhibit his work on Colitis and the Diarrheas, at their Annual Convention in Los Angeles, October 14-17. This same exhibit was shown at the A M A Convention in Atlantic City.

is that the country generally is now better equipped to care for its tuberculosis residents near at home. Another advantage not to be had a few years ago are modern weapons that are now used to combat tuberculosis. Isolation of the carriers in sanatoria is, of course, the crux of the situation, but there are also new developments in diagnosis and treatment which make the control of tuberculous transients, even in the absence of adequate beds, more workable than some years ago. For example, collapse surgery enables the otherwise bedridden patient to carry on light work, and this treatment also renders him bacillus-free which means that he promptly ceases to be a danger to others. Fifty per cent or more of all tuberculous patients can be successfully "collapsed," and so-called ambulatory pneu-

mothorax treatment is now an accepted procedure. There are furthermore better methods of case-finding. It would not be Utopian to propose that all transients be X-rayed, which would lead to the discovery not only of obvious cases, but also of those in the earlier stages who by prompt action could soon be restored to health.

"No home is safe until every home is safe," is an old slogan used by tuberculosis associations. Until we have come to grips with the tuberculous transient, we cannot hope to guarantee safety to the rest of American citizens.

Reference

Kleinschmidt Sick, Broke and Foot-loose, *The Journal-Lancet*, April 1937

Drs Van Volkenburgh and Stebbins Promoted

V A Van Volkenburgh, M D, Dr P H, has been promoted to the position of Assistant Commissioner of Local Health Administration, and Ernest L Stebbins, M D, to that of Director of Communicable Diseases, effective September 16.

Dr Van Volkenburgh, formerly Associate in Epidemiology at Johns Hopkins School of Hygiene and Public Health, was appointed on the staff of the New York State Department of Health several years ago and has since served successively as assistant

district health officer, epidemiologist and district health officer. For the past two years he has been in immediate charge of the Ithaca Health District.

Dr Stebbins joined the Department staff in 1934 having had previous experience as assistant epidemiologist with the Virginia State Board of Health and as health officer of Henrico county, Virginia. Since March 1936 he has been in charge of the Rochester Health District—*Health News*, September 27, 1937.

A WIDER STUDY OF LEPROSY

The Leonard Wood Memorial announces the appointment of Dr George M Saunders as director of a department to make a special world-wide study of the environmental factors that affect the lives of lepers and that might assist in treatment. Dr Saunders is a graduate of the University of Wisconsin and the Harvard Medical School.

In 1931 he headed an expedition to Yucatan to study malaria and amebic dysentery. For the last five years he has been director of the Yaws Commission in the British West Indies under the auspices of the Rockefeller Foundation.

The Memorial believes that nothing that has ever been done in the campaign against leprosy is so promising of results as the program now inaugurated. For several years, epidemiological studies have been carried on under the direction of Dr Jose Rodriguez at the Memorial's leprosarium

at Cebu in the Philippines, but because leprosy exists in almost all parts of the world and under such differing conditions, it is not sufficient to work in one place only, scientific research should be carried on simultaneously in many places, widely separated to furnish comparative data.

The United States, with considerable leprosy in southern states, Puerto Rico, the Virgin Islands, and Hawaii is the first country to create its local unit of study. The Public Health Service has appointed Dr George W McCoy as director of these studies.

As October 9 was the anniversary of the birth of General Leonard Wood, who was instrumental in starting this work, the Memorial felt that it is especially appropriate to ask all who can do so to help eradicate leprosy through the contribution of the additional funds needed to carry on their enlarged study.

Medical News

Cattaraugus County

DR. ERLY HARRISON MADISON, of Olean, who died on September 15, had been City Physician for seventeen years. He would have been seventy on October 29.

Cayuga County

DR. LEO F. SIMPSON was the guest speaker at a meeting of the Cayuga County Medical Society on September 16 at Auburn. Doctor Simpson gave an account of his visits during the past summer to hospitals in Norway, Sweden, Denmark, Germany, France, and England and the various methods and practices of physicians in those countries. Dr. Donald Green presided.

Chautauqua County

THE ANNUAL FALL MEETING of the Chautauqua County Medical Society was held September 15 at Newton Memorial Hospital at Cassadaga, where the members were guests of the board of managers at dinner. A business and scientific session was held during the afternoon. Dr. Werner J. Rose gave a paper on "Conditions Above and Below the Diaphragm that Simulate Heart Disease." Dr. W. G. Hayward is president of the county society, the other officers being Vice-president, Dr. C. E. Hallenbeck, secretary, Dr. Edgar Bieber, treasurer, Dr. Frederick J. Pfisterer.

DR. WARREN D. WELLMAN, one of Jamestown's oldest practicing physicians, died on September 18, aged eighty-two. He had practiced medicine there forty-nine years.

Cortland County

AN INTERESTING TALK on some of the comparatively rare complications occurring in obstetrics was given before twenty-five members of the Cortland County Medical Society and visiting physicians by Dr. Ward L. Ekas, associate professor of gynecology and obstetrics of University of Rochester school of medicine, on September 17. Dr. Ekas' subject was "Management of Some Difficult Obstetrical Problems." A general discussion followed the talk which was given at the Cortland Free Library auditorium.

Dutchess County

A SCIENTIFIC DISCUSSION ON "Uterine

Displacements" by Dr. Walter T. Dannreuther, of the Post Graduate hospital, New York city, was the feature of the regular meeting of the Dutchess County Medical Society in Poughkeepsie on September 8.

Erie County

DESIGNED TO ARM PHYSICIANS to combat attacks on their profession, a comprehensive course in public speaking was launched by the Erie County Medical Society last month.

"Physicians usually are unwilling to express publicly their views concerning repeated attacks on the medical profession," explains Dr. Harry C. Guess, chairman of the society's educational committee, who arranged the course.

"The purpose of the course is to train them to become highly articulate and more fluent in speech, and to overcome their natural reticence that they may combat the arguments advanced by lay agencies seeking to foist their particular ideas of scientific medicine upon the public."

A score of physicians have signed up for the course, which opened September 23, under the direction of Stanley D. Travis, assistant professor of English at University of Buffalo. Classes will be conducted each Thursday until December 2. The course is open to any member of the society.

THIRTEEN STATES AND THE province of Ontario were represented in the registration of thirty-one practicing physicians in the seventeenth annual post-graduate course in medicine and surgery, held at the University of Buffalo School of Medicine in September. The doctors enrolled were graduates of twenty-five different colleges and universities.

Kings County

THE WOMEN'S AUXILIARY TO THE Medical Society of the County of Kings, Mrs. Edwin A. Griffin, president, gave a bridge on October 6, at the home of Mrs. Frederic E. Elliott. Mrs. Maurice J. Dattelbaum was chairman.

THE ASSOCIATION OF MILITARY Surgeons of the United States invited Dr. William Z. Fradkin, of the Jewish Hospital of Brooklyn, to exhibit his work on Colitis and the Diarrheas, at their Annual Convention in Los Angeles, October 14-17. This same exhibit was shown at the A.M.A. Convention in Atlantic City.

Madison County

THE WOMAN'S AUXILIARY OF THE Madison County Medical Society held a dinner meeting at the Hotel Oneida, in Oneida, on September 9. Dr Otto Pfaff spoke.

Monroe County

THE ROCHESTER GROUP OF THE American Association of Medical Social Workers is sponsoring a series of eight weekly Wednesday lectures by physicians on "Social and Emotional Factors of Disease," first of which was given on September 22 in the assembly hall at Rochester General Hospital. The first lecture, on syphilis, was given by Dr John B. Laidlaw, assistant physician in medicine at Strong Memorial Hospital and instructor in medicine at University of Rochester School of Medicine and Dentistry. Other speakers and their subjects include Dr Charles B. F. Gibbs, attending physician, Rochester General Hospital, diabetes; Dr Wesley Pommerehne, assistant obstetrician and gynecologist, Strong Memorial Hospital, diseases of women; Dr W. J. Merle Scott, associate surgeon, Strong Memorial Hospital, cancer; Dr Libby Pulsifer, attending physician, General Hospital, gastrointestinal disorders; Dr William S. McCann, physician-in-chief, Strong Memorial Hospital, degenerative diseases; Dr R. Plato Schwartz, associate surgeon, Strong Memorial Hospital, orthopedic conditions; Dr Albert D. Kaiser, chief of pediatric service, General Hospital, diseases of children.

MORE THAN 600 PHYSICIANS of the city and county were guests of the officers and trustees of the Rochester Academy of Medicine at a dinner meeting in the Chamber of Commerce on September 9.

Dr Perrin H. Long, associate professor of medicine, Johns Hopkins Medical School, spoke.

Nassau County

DR LOUIS A. VAN KLEECK was guest speaker at a meeting of the woman's auxiliary to the Nassau County Medical Society, on September 21, at the Nassau hospital auditorium, Mineola.

Niagara County

THE NIAGARA COUNTY MEDICAL Society resumed its activities on September 14 with a dinner meeting, attended by seventy-five members. A paper on "Clinical Problems in Gall Bladder Disease," was read by

Dr Robert S. Dinsmore, of the Cleveland Clinic. A discussion was led by Dr James C. Sullivan.

THE NIAGARA COUNTY HOME BUREAU, with the cooperation of the Niagara County Health Association, the Niagara County Medical Society and the District Health Department of Buffalo, is sponsoring an educational campaign against pneumonia. Information will be given on "what pneumonia is" and "why it is a public health problem" to lay leaders from Home Bureau groups and any other interested community organizations at a training institute to be held October 29 by Dr Edward A. Rogers, director of the Bureau of Pneumonia Control, Albany.

Oneida County

THE UTICA ACADEMY OF MEDICINE speaker for the October 21 meeting will be Dr B. R. Kirklin of the Mayo Clinic. He will read a paper on "Gastrointestinal Diseases," which last year he presented to the Royal Society of Medicine in London.

THE ANNUAL DINNER MEETING and golf tournament for members of the Syracuse and Utica Academies of Medicine was held at the Yalmundasis Country Club, Utica, on September 16. The event has been held annually ten or twelve years, with Utica and Syracuse alternating as host. The dinner was followed by a scientific program. Dr Leon E. Sutton was guest speaker and the department of anesthesia of the College of Medicine, Syracuse University, gave "A Consideration of the Newer Developments of Anesthesia."

Onondaga County

A BOOTH FOR THE DISTRIBUTION of literature and for discussions on maternal welfare at the New York State fair was under the supervision of members of the woman's auxiliary to the Onondaga County Medical Society. A nurse and two women were in attendance each day of the fair. Miss Mary McGarry, district state supervising nurse, assisted the members of the auxiliary in arranging the booth.

Ontario County

VETERANS HOSPITAL STAFF members were hosts on September 9 to members and guests of the Canandaigua Medical Society at a meeting on the reservation. A chicken dinner was followed by a program by the hospital staff. Dr Hans Hansen, manager, read a paper on "The General Aspects of

the Treatment of Dementia Praecox by Means of Insulin Shock," after which the following staff members conducted clinics: Dr Louis V Lopez, on "Encephalitis," Dr Johnnie A Norris, "Neurosyphilis," and Dr Victor Goodside, "Chorea."

Dr A W Armstrong was host at a regular meeting of the Society October 14, with Dr J H Pratt as speaker

Oswego County

THE ONE HUNDRED AND SIXTEENTH ANNIVERSARY of the Medical Society of Oswego County was celebrated on October 14 at Oswego. The speakers were Dr Charles H Goodrich, President of the Medical Society of the State of New York—subject, "Preventive Medicine"—and Dr Norris Fishbein, Editor of the *Journal* of the American Medical Association—subject, "Medicine and The National Policies"

Queens County

DR J ARTHUR MYERS of Minneapolis, president of the National Tuberculosis Association praised the Queens plan to check tuberculosis, in an address on September 22, at the eighteenth annual meeting of the Queensboro Tuberculosis and Health Association, held with the Queens County Medical Association

"The Queens plan, about to be launched, to offer x-rays of the chest to the apparently well adult population for \$1 each by the rapid x-ray method," he said, "is one of, if not the very best, modern methods for discovering the many unknown cases of tuberculosis that are constantly spreading the disease."

At the meeting Dr Carl Boettiger was elected president, Dr George F Ryan, first vice-president, Mrs D W Thompson, second vice-president, and Harry V Hoyt, treasurer

Dr James J Reuling, president of the Queens County Medical Society, had explained that the society and the association would begin an extensive campaign soon to find the unknown cases of tuberculosis in the borough by offering x-rays of the chest with report of the findings for \$1 each

"This," he said, "will be another instance where the Borough of Queens has led the way in inaugurating a health project of far-reaching value in making this borough of ours a healthier and happier place in which to live."

THE QUEENS COUNTY CANCER Committee has announced the formation of a speakers' bureau for the 1937-1938 season

The following physicians, all members of

the Queens County Medical Society, have been appointed to the speakers' bureau

Dr Carl Boettiger, Dr William T Hoffman, Dr Ida Mintzer, Dr Irving Ponemon, Dr Francis G Riley, Dr Joseph S Thomas, Dr Albert L Voltz and Dr Joseph Wrana

The bureau sends out speakers to social, fraternal, political, school and church groups, whenever a request for such service is made

The Cancer Committee, in a statement said

We urge organizations throughout the borough to take advantage of our free speakers' service. We will be more than glad to send an interesting speaker on the topic of cancer to any group that communicates such a request to us"

St Lawrence County

DR D M MILLS AND HIS SON, Dr H L Mills won the championship in the fifth annual Northern New York Father and Son Golf tournament at the Jefferson County Golf Club on September 19. The pair turned in the low net score 83. They had a gross score of 95

DR F F WILLIAMS, eighty-year-old Canton physician, was named health officer of the village by the village board on September 13

Steuben County

THE STEUBEN COUNTY MEDICAL Society met in Hornell on September 9. Papers given were as follows: "New Uses of Oxygen," by Dr Clarence Durshordwe, "Surgery for Immediate Dentures," by Dr Amos G Stiker

Westchester County

DR MATTHIAS NICOLL, JR, Commissioner of the Westchester County Department of Health since 1930, will retire in the Spring, he announced on September 9. Dr Nicoll, former State Health Commissioner, will reach the age limit set by the State some time during next year. Announcement of Dr Nicoll's retirement comes on the heels of the retirement of Dr Richard Slee, First Deputy Health Commissioner, who left the department October 1. Dr Nicoll as State Commissioner, appointed Dr Slee District Health Officer for this part of the State before the County Department was set up

DR ALEXANDER O SNOWDEN, a practicing physician in Peekskill for nearly sixty years and the oldest physician there, died at his home on September 20, of a heart attack. He was in his eighty-fourth year

Hospital News

Should Interns Be Paid?

IT HAS RECENTLY BEEN POINTED OUT that 2,685 of the 6,923 interns in the United States, or more than one-third, receive no remuneration from the hospitals they serve other than board and lodging, and that the average cash allowance of the others was \$25.88 a month. In recent years there has been considerable agitation for a more adequate financial arrangement. Many questions are involved, says *The Medical Record*. Should interns be paid at all? If so, should their wage be commensurate with their professional status? Should they accept gifts of money from patients, or from attending physicians for some special services rendered? Or, as has been facetiously suggested, in view of the great rivalry for favorable positions in preferred hospitals, should not internships be auctioned off to the highest bidders?

One thing surely can be said in favor of paying interns. They will know the luxury, for a year or two, of financial independence. For a long time after leaving their well-protected intramural practice to climb the hills of private work, they will never feel as secure. The previous years of study and expense surely were trying enough. Who, then, would gainsay the poor intern his fleeting breathing spell, his temporary Arcadia, the busy, delectable days spent in seeing cases rather than

reading about them in books, and actually receiving cash for the privilege?

Of course the intern should be paid, declares *The Medical Record*. His professional pride calls for money in his pocket, money which he has earned by hard effort, by conscientious and servile attention to duty, by sleepless nights, by abuse as underdog from his betters. What if he does presume too much at times, in assuming a superior attitude towards his attending physician by flaunting his newly-won knowledge? What if occasionally a touch of superciliousness and brusqueness creeps into his manners? He is going through a trial by fire, he is being given authority in a heap, and he is learning to adjust himself to his new powers. Time will tame him, but for the present a superabundance of energy and a latent mass of power must expend itself, to the discomfiture of training school office, and the annoyance of staff physicians. When he has put off his white uniform for the last time, and his mind is on favorable locations, there will be more than a touch of tenderness throughout the hospital as he makes his final round of farewells.

He will be given his godspeed with tenderness and sincere regrets. What is more, if he is a paid intern, he may have his first month's rent in his pocket.

Unqualified Surgeons Barred Out

FOR THE FIRST TIME in its history the Cleveland Hospital Council has adopted mandatory regulations upon its member hospitals, we are told in *The Modern Hospital*. To safeguard surgical patients, a committee under the chairmanship of Dr. George E. Follansbee, president of the council, prepared the following minimum standards of qualification to practice major surgery:

1. Membership in a recognized local organization of doctors of medicine, the membership of which includes practitioners of both general medicine and the specialties and which has state and national affiliations.

2. Either, (a) two full years of hospital

training, at least one of which shall have been in general surgery in a hospital approved for the training of surgical residents by the American Medical Association (in the case of surgical specialties the training shall have been in a hospital approved for such special resident training by the A. M. A.), or (b) membership on the active visiting surgical staff of a member hospital of the Cleveland Hospital Council and classified to do major surgery, or (c) fellowship in the American College of Surgeons, or (d) not qualifying as above but having had sufficient surgical experience, when certified by a member hospital of the Cleveland Hospital Council that has adopted

these minimum standards, and on recommendation of the surgical authority of that hospital, accompanied by a statement of experience and training justifying the recommendation

The committee believes that the staff as a whole or its designated representatives is the authority best qualified to judge applicants

For the purpose of establishing the minimum standards, "major surgery" has been defined as

1 Operations within or upon the contents of the following cavities cranium, thorax and abdomen, including the pelvis

2 Other operations which, because of locality, condition of the patient, difficulty or length of time required to operate, constitute a distinct hazard to life.

3 In case of doubt or dispute, the surgical authority of the interested hospital shall determine whether an operation is major or minor

The committee recommended that these new regulations should not be retroactive but be put into effect Nov 1, 1936, and should govern all applicants from that date.

The committee further recommended that the classification of member hospitals be

restricted to those hospitals which meet present requirements and agree to adopt and maintain recommended standards for the practice of major surgery

In promulgating the standards, the committee stressed the fact that the standards were minimal and that any hospital could establish for itself a higher standard but no hospital "agreeing to cooperate may establish a lower standard"

The committee also stated that "an applicant having been approved to practice major surgery in a certain hospital has no right because of such approval to demand permission to practice major surgery in another hospital, whether with a higher or a lower standard. No hospital is obligated to accept an applicant because of the fact that he has qualifications herein set forth, but each hospital shall be its own judge within the restrictions herein set forth. Classification to practice major surgery in a hospital is revocable at any time at the discretion of the surgical authority of that hospital"

The council hopes, by these measures, to afford reasonable protection of patients against inefficient and inadvisable operation, to protect the reputation of the hospitals and to elevate the practice of major surgery

Liability Insurance

THE ATTENTION OF THE HOSPITAL world was directed recently by an article in *The Modern Hospital* to the necessity and, indeed, the fairness of providing liability insurance for members of the personnel

While it is hardly likely that employees in the lower brackets would ever be held personally responsible for mistakes of their own, this statement does not apply to physicians or even nurses as a group, it remarks in a later editorial. The head of the x-ray or the physical therapy department might easily, through no fault of his own, be accused of responsibility for a burn by x-ray, electrical contact or even for injury from other physical agents employed in the treatment of disease

To be sure, most physicians carry some form of liability insurance. They should, however, examine their policies carefully

to be sure the protection is adequate. There is at least one company, for example, which will defend the head of an x-ray or physical therapy department against suit for damages resulting from a real or supposed injury if he personally were administering the treatment. But this company stipulates that unless all technicians in these departments carry liability insurance it will not defend the head of the department if he is sued for damage resulting from the act of a technician. Were insurance companies generally to adopt this attitude the director of such a department would be in continual jeopardy from malpractice suits

The hospital should adopt a fair position toward the protection of its staff members against the depredations of unscrupulous persons seeking to profit through trumped-up liability suits

Improvements

MOUNT SINAI HOSPITAL (New York City) receives \$916,579 from the estate of

Marco Fleishman, leaf tobacco merchant, who died Feb 17, 1936, according to a

transfer tax appraisal filed recently Mr Fleishman's net estate, according to the appraisal, amounted to \$1,170,482. Under the provisions of Mr Fleishman's will the bequest to the hospital will be known as the Rosetta and Marco Fleishman Fund and will be used for the construction and equipment of a new building or extension of the existing buildings to care for persons suffering from tuberculosis in its early stages.

THE BOARD OF MANAGERS OF IOLA Sanatorium at Rochester has asked the Board of Supervisors to appropriate funds for enlarging the medical wing, housing the dispensary, laboratories, x-ray and surgical departments.

This request has been supported by the Tuberculosis and Health Association, by the Division of Tuberculosis of the State Department of Health, and by the Tuberculosis Subcommittee of the Monroe County Medical Society. The cost is estimated at about \$100,000.

Points particularly stressed are that dispensary facilities would be improved and delays in examinations reduced.

LEONARD HOSPITAL in Troy, has added a complete new x-ray department, costing \$5,000.

WORK ON THE HALF-MILLION DOLLAR addition to Rav Brook State hospital is progressing rapidly with the steel frame of one wing already erected and the foundations of the entire building finished.

A DECISION TO DROP the proposed plans for a fifty-two-bed hospital for Massena at an estimated cost of \$200,000 has been made by the Massena Chamber of Commerce. It was decided to attempt to finance a smaller institution at a cost of \$50,000.

THE NURSES' HOME AT THE Leonard Hospital in Troy, scene of a disastrous fire last winter, has been rebuilt and is now occupied.

A MILLION DOLLARS' WORTH of small, free, "poor-man hospitals" and clinics are being scattered about Louisiana by Governor Richard W. Leche.

"When people are too poor to pay for private medicine and hospitalization they are too poor to travel a long distance, so we are bringing new hospitals to the people," said Governor Leche recently in explaining the program.

"Free hospitalization for the destitute in many states is being conducted on a county or municipal basis, but we believe Louisiana is a pioneer in establishing a state-wide system."

The plan calls for a network of clinics and small five-bed to ten-bed wards in private hospitals under contract to the state. The cost of surgical and medical care, nursing and other services will be defrayed by the state on a fee basis.

THE CORNERSTONE OF New York City's new Welfare Hospital for Chronic Diseases was laid on Oct. 5. It will be the largest hospital in the world devoted exclusively to the scientific care of chronic diseases and will be affiliated with Columbia University's College of Physicians and Surgeons, Cornell University Medical College, and New York University College of Medicine. A carefully selected research staff has now been engaged in important investigations for more than a year and the first fruits of its studies will be made known to the medical profession through scientific journals during the coming winter. Studies are progressing in phases of such chronic diseases as rheumatoid arthritis, cirrhosis of the liver, chronic nephritis, pulmonary emphysema, arteriosclerosis, and hypertension.

Newsy Notes

AN INTERESTING EXPERIMENT is being tried in Oswego, where the doctors ceased caring for relief cases in the Oswego Hospital gratis in October 1936, and demanded that the Welfare Department pay them the same fees as they received in private cases.

Accordingly an allotment of \$6,228 was provided for this purpose for 1937, but by August \$5,595 of it had been expended for doctors' fees, leaving only \$633 to carry through to Jan. 1. The Welfare Department has asked for an additional \$4,000.

X-RAY DUPLICATES FOR THE PATIENT

THE VALUE OF X-ray pictures for diagnostic purposes has long been realized, but aside from its value to the physician it meant very little to the layman.

Some months ago Dr Courtenay I Headland, Director of the Department of Roentgenology of the Yonkers General Hospital conceived the idea of reproducing the X-ray films in miniature photographs for the patient, thereby giving him an accurate picture of the broken bone, the presence of gall stones or other pathological condition. Each patient was therefore presented with these pictures.

This service has proven of value also to the physician, making it unnecessary for him to burden himself with the bulky plates for outside consultation at compensation court etc., though the plates are as always available.

These pictures are only 3 1/4 by 4 1/2, but give accurate details and can be filed by physicians with the patient's record in their office. They may also prove valuable to patients leaving the community and having a recurrence of an old ailment far from their family physician.

So popular has Dr Headland's idea become that other local hospitals are finding it necessary to install the services as have several hospital and large laboratories in New York City.

Dr J J GOLUB, DIRECTOR OF THE Hospital for Joint Diseases in New York City, has coined a word to describe the profession of those engaged in the higher branches of hospital work. It is "hospitology." He says in an exhaustive and scholarly article in *Hospitals* that hospitology is derived from the Latin 'hospitium,' which means the place where a guest is received. It is defined as the art and science of (a) hospital service, (b) hospital administration, and (c) the special architectural and engineering features involved in hospital planning, construction, and equipment. He adds that

"Hospitology is concerned with those special features of hospital planning, construction, and equipment that give to the hospital completeness, unity, accessibility, flexibility, facility, and economy of operation. It recommends that consideration be given to community needs, sanitary and building codes, and the most desirable sites for hospitals. It suggests ways of properly grouping, orienting and planning hospital buildings and patients' wards and rooms, professional, technical and domestic services, nurses' residences, departments, and teaching and research facilities.

"All of the internal elements which make up a hospital and all of the external elements which affect the hospital are the concern of hospitology. The practitioners of hospitology are hospitologists."

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN ELECTED

Frank Gulden, to be president of the Southside Hospital at Bay Shore

F Langdon Corwin, to be president of the directors of the Eastern Long Island Hospital at Greenport.

Charles H Lang, to be president of the board of managers of Ellis Hospital at Schenectady.

Prof E E Dwyer, to be president of the Mahopac Emergency Hospital.

Miss Edith M Lacy, to be superintendent of the Hudson City Hospital School of Nursing.

Mrs George H Miller, to be president of the Arnold Gregory Memorial Hospital auxiliary at Albion.

Milo Cleveland, to be president of the Brockport Hospital Association.

Mrs Rose Groening, to be president of the board of the united auxiliaries of the Mary Immaculate Hospital.

Dr Robert D Manning to be president of the Peekskill Hospital medical board.

DR IRVINE H PAGE, associate member of the Hospital of the Rockefeller Institute, has become director of clinical research at the Indianapolis City Hospital.

DR WILLIAM J TIFFANY, superintendent of the Pilgram State Hospital at Brentwood, and former member of the staff of Matteawan State Hospital in Beacon has been appointed state commissioner of mental hygiene to succeed Dr Frederick W Parsons resigned.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Responsibility of Surgeon for Acts of Nurse

Various attempts are made from time to time to fasten responsibility upon a physician for the acts of nurses, interns or other assistants who participate in the care of a surgeon's patient at a hospital. One such case, which resulted favorably to the doctor, was determined a few months ago in the Federal Courts*.

The case was one brought on behalf of an infant against the surgeon who had attended at his birth, the claim being that the doctor's negligence was the cause of injuries to the eyes of the plaintiff. The complaint was founded upon three separate claims of negligence. The first was that following birth the defendant had failed to give the child any personal attention whatsoever. The second charge was that defendant left the child in the care of assistants and servants who negligently inflicted injuries. The last claim was that after the negligence of the so-called agents, the defendant had failed to properly follow up the care of the infant.

There was upon the trial, it seems, little actual dispute as to what took place. The facts as developed will be summarized at some length.

The defendant was retained to care for Mrs. B., the infant's mother, during her period of pregnancy and to deliver her and render customary postnatal care. In due course Mrs. B. was admitted as a patient at a hospital of her own choice to give birth to her child. The defendant attended her and after efforts to bring about a normal birth, he elected to perform a Cesarean operation. Upon removal of the child the doctor patted him on the back and attended to the cord. The child cried, and appearing to be normal, it was handed by the doctor to the nurses, who swabbed the mouth and nose of the baby and took it from the operating room. The doctor then proceeded to devote his undivided attention to the mother, since there was profuse bleeding and the placenta had not yet been removed. The completion of the operation was satisfactorily brought about, following which the doctor washed and dressed, then went

to the mother's room to examine her before he devoted any of his attention to the infant.

It seems that the infant plaintiff was taken from the operating room by the nurse and carried immediately to the nursery on a lower floor in the hospital. Dr. H., when he first saw the child in the nursery after leaving the mother, found the child sleeping. He made an examination including an inspection of the cord and taking the pulse. He thereupon left the building.

A short time later, without the knowledge of Dr. H., one of the hospital nurses, a Miss M., undertook to administer to the child the so-called Crede treatment. She had available only a single tube of silver nitrate solution for the purpose which had been supplied by the Board of Health. Miss M. inadvertently wasted the contents of the tube, and had to obtain the solution for application to the infant from another source. She then requested another nurse to get her a quantity of two per cent silver nitrate solution from the drug department. A bottle of what purported to be such substance was supplied her, and Miss M. administered the treatment to the baby's eyes. An instant reaction was seen causing the eyes to turn white. She then applied some four ounces of a saline solution to the eyes. The result was that the eyes and eyelids were severely burned.

Later on that day, Dr. H. being told of the incident, ordered boric acid irrigations and other forms of treatment. The eyelids became inflamed and swollen and so remained for a long time. An eye specialist was brought in the second day after birth and he approved Dr. H.'s method of treating the child.

During the time that followed before the case came to trial various specialists were consulted. The child was for some time blind, but later improved greatly, so that at the age of three when the trial took place, he had regained substantial vision.

It was shown upon the trial that the custom was for the nurses to administer the Crede treatment as a matter of routine in all cases of normal delivery. It also was shown that in cases of Cesarean birth, although it was not bad practice to administer it, the Crede treatment was unnecessary.

* Harlow v. Bryant, 87 Fed. (2nd) 170

The evidence was that Dr H had given no orders that the treatment should be or should not be administered.

The hospital where the acts in question took place was established to be a charitable institution. The nurses who had participated in the matter were all employed by the hospital and paid by the hospital. The defendant's connection with the institution was as a member of its medical staff.

Upon such evidence upon the trial the case was submitted to the jury and a substantial verdict was awarded the infant plaintiff. The defendant thereupon took an appeal to the United States Circuit Court of Appeals, and succeeded in reversing the judgment.

The Appellate Court upon reviewing the case found that there was no possible basis upon the evidence for a recovery against the doctor on the first or third theories but that the plaintiff's case, if any, must necessarily rest upon the second theory, namely, that defendant was responsible for the negligent acts of the nurses. In holding that under the evidence the defendant was not responsible for what the nurses had done, the Court said, in the course of its opinion:

It cannot be said, therefore, that there was any duty or obligation on the part of the defendant to administer the treatment in the present case. He apparently had no intention of administering such treatment or of directing that it be done, as he gave no orders whatsoever at the time of birth to have it done, and after seeing the baby in the nursery a short time following the birth, he evidently deemed such treatment unnecessary as he left the hospital without giving directions that it be administered. The instillation was brought about by the nurse in charge of the obstetrical department of the hospital upon her own initiative and presumably in the performance of what she deemed to be her duty as an employee of the hospital. The treatment was administered out of the presence of the doctor, and after he had left the hospital, and he cannot be charged with the duty of foreseeing that the same would be undertaken without directions from him. We cannot accept as sound appellee's suggestion in his supplemental brief that the doctor, if he deemed the instillation unnecessary, should have instructed the nurses that it be omitted.

True he gave no orders that the treatment be not administered, but neither did he caution the nurse not to fall down and drop the baby and neither did he give orders that upon reaching the nursery they do not give the baby a cold shower. No inferences are to be had against the doctor under the circumstances here present for his failure to give any negative orders, and under the law existing at the time in question and under the facts present, there was no obligation on his part to administer the treatment, in fact, the assumption that he had formed a judgment to the contrary is justified. Such judgment is shown to have been in accordance with good medical practice. How can he, therefore, be held for the negligent act of another assuming to act, not under his directions, but acting in pursuance of an independent judgment—indeed a judgment contrary to his own? In the absence of a duty to act we think it cannot be said that he is responsible for another who acts without his authority with a resultant injury.

It might properly be said that the nurses assisting in the operating room at the time of delivery were the agents and servants of the doctor, for they were under his direct control and supervision and subject to his orders (although a contrary doctrine was held in the case of *Olander v Johnson* 258 Ill App 89), but to say that such relation continued in all postnatal treatment administered by them or by the hospital would cast too great a burden upon the surgeon. Even though there may be basis for the assertion that the relation of master and servant continued to the extent that they might undertake the performance of orders and directions of the doctor, yet the undertaking of a treatment not expressly or, as we think, impliedly, authorized, was beyond the scope of their authority as his agents.

A servant cannot create the relationship (of master and servant) by merely assuming to act. So far as appellant was concerned, the nurses in undertaking the instillation here made were mere volunteers. They cannot by their acts impose a duty upon the surgeon, not otherwise existing.

In assuming the care of the mother and child, the defendant impliedly contracted that he possessed and would use in the treatment of his patients a reasonable degree of skill and learning, and he thus owed a duty toward each to exercise such reasonable care and skill as a reasonably prudent and careful physician and surgeon would use under like circumstances. This was his burden and so far as the record discloses he fully and skillfully met it.

OUR OLD FRIEND, PAIN

Pain was cast in the role of a "blessing to humanity" by Dr Henry J Dowd, Buffalo nerve specialist, the other day.

"Hundreds of thousands of individuals now living would be dead had it not been for pain," Dr Dowd told members of the Gross Club, an association of medical men. "For," he explained, "it is pain which di-

rects the physician to the underlying source of disease.

"It must be remembered that a baby cannot speak before it is a year or so old. Its word for hunger is a cry or a yell. The same may be said for nerve cells, they cannot speak. Their word for irritation or undernutrition is pain."

Across the Desk

Shouting the Battle-Cry of Freedom

AMERICA IS THE LAND OF THE FREE, and the home of the brave. It is growing freer and freer, and braver and braver, all the time. If we may reword the redoubtable Dr. Coue, "everything, in every way, is growing freer, day by day." The new gospel of our age is that our organized minorities can have anything they want by demanding it and fighting for it. That is where the bravery comes in, or "nerve," as it is sometimes called. The subtle idea back of the socialized medicine drive is that medical treatment will be free.

If this seems incredible, scan the resolution passed by the Brotherhood of Painters, Decorators, and Paperhangers of America, at their convention in Buffalo last month, as quoted in the *Bulletin* of our Erie County society. It reads:

Resolved, That our Brotherhood and its delegates, assembled at Buffalo, N. Y., in September, 1937, recommend that our Federal Government, as well as all our States, provide for some form of socialized medicine, whereby our Brothers, as well as their families, will be protected in all cases of sickness, operations and hospitalization, free of charge, and be it further

Resolved, That our elected delegates to the American Federation of Labor Convention, to be held in Denver, Colo., in October, 1937, be instructed to introduce this resolution and fight for the adoption of same.

How About Free Wallpaper?

Not only ordinary medical care, but operations and hospitalization, are to be "free of charge." Yet what a laugh the assembled painters and paperhangers would have at some convention of doctors demanded free paint and wallpaper. True, wallpaper and paint do not have the sentimental appeal of medical care, but food, clothing and shelter are just as necessary to life and health as medicine, if not more so—why don't the decorators demand them gratis, too? The simple reason is that the professional propagandists who are advocating state medicine believe they can put the medical idea over and get lucrative jobs in running the machinery, but know that a drive for free hats, shoes, eggs and sausage would have no more

chance than a snowball in Satan's celebrated thermal resort.

Something Like a Black Eye

The pet argument of the socializers, that we ought to have health insurance because the British have it, received something very much like a black eye when Sir Henry B. Brackenbury, Chairman of the Council of the British Medical Association was over here last summer, en route to New Zealand, where he has been asked to act in an advisory capacity to the medical profession there. While in California, as guest at a dinner given by Dr. Clarence G. Toland, President of the California Medical Association, he was asked to tell how health insurance works in Great Britain.

It appears from Sir Henry's reply that some 18,000 of Britain's 50,000 practitioners are panel physicians, caring for about 18,000,000 citizens under employment. The yearly sum paid by the public authorities for each workingman is 13 shillings (\$3.25) of which \$2.25 goes to the physician to cover all costs of care, thirty-five cents goes to the pharmacist, and sixty-five cents is set aside for mileage and special expenses. Sir Henry had much to do, for the medical profession, with fixing the rates and rules, and says that the arrangement, on the whole, is satisfactory to both doctors and public.

But when asked how he thought such a system would work in this country, he proceeded to point out a few pertinent facts. The British doctors and patients are all of the same racial character and background, located in a small island. This is in contrast, he said, as reported in *California and Western Medicine*, for instance, to California, with its separate licensing boards for doctors of medicine, doctors of osteopathy and doctors of chiropractic and widely varying educational and other standards, or to the United States, where each of the forty-eight states, as an expression of police power in safeguarding the health and lives of its people, could set up systems of healing art licensure as diverse as exist today in some of the individual commonwealths. To be

noted also, in passing, is the fact that in the United States a national standard of licensure would be unconstitutional, because it would infringe upon those police powers guaranteed by the Constitution of the United States

The Peril of Party Politics

More important still, he noted, is the existence in Britain of the permanent civil service personnel, which has continuous and real authority to carry out the act and laws of Parliament, no matter what political group may name the nominal heads of the governmental departments

Without such expert, impartial and non-political supervision, he was of the opinion that a health insurance system such as exists in England Scotland, and Wales would in the United States from the beginning, be enormously handicapped in its organization, and prove practically impossible

of successful development. The distinguished speaker emphasized also, as his personal opinion, that it was doubtful, therefore, whether a successful health insurance system could be created here under conditions wherein political forces would be in major authority

Here, then, is a physician of the highest standing, in closest sympathy with the health insurance principle, visiting the only state in the Union where the state medical society has ever favored that plan, and he takes that occasion to declare that the very system he helped to frame would never work here. Could we have anything more conclusive?

Moreover, like the skilled diagnostician he is, he puts his finger unerringly on the sore spot—any such scheme would inevitably become the football of party politics here with disastrous results to physician and patient alike

Medical Editors and Homicidal Contributors

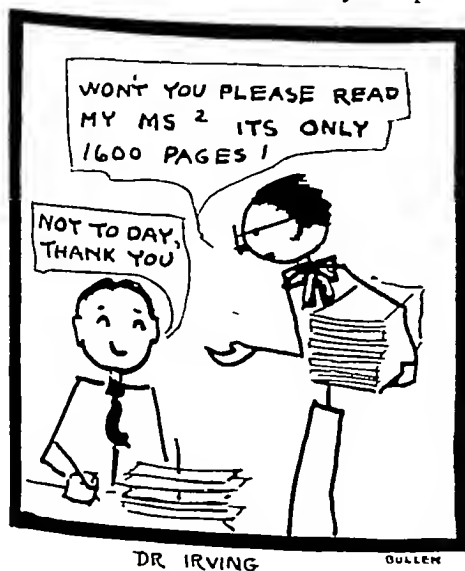
ANOTHER FEARSOME POSSIBILITY that has so far escaped mention in connection with state medicine is that the medical journals might have to print only the articles written by doctors who "stood in" with the "powers that be." Imagine the day when some smart young M. D. with political affiliations might stalk into the office, plank his article on boils on the editor's desk, and say, "Hey, you, the big boss says to print

this in the next number or you get the sack!" Such a picture, however, instead of being regrettable may seem highly desirable to some who have had their best efforts returned, with or without thanks. Perhaps they would sympathize with a character in J. M. Barrie's "My Lady Nicotine." He was a magazine writer who had had more than one MMS returned by unfeeling editors, and was in a homicidal mood.

As Barrie relates, he dreamed that he was witness in a murder trial. A magazine editor had been found dead on his office floor and one of his contributors was being tried for the murder. The dreamer on the witness stand told how he came up to the dead editor's office with an article for sale. He opened the door and saw the editor on the floor and the defendant kneeling on his chest and hammering at his head with the poker.

Q "What did you do then?" A "I said 'Oh excuse me,' and walked out, shutting the door behind me."

Without intimating at all that there is the slightest connection, your scribe takes the liberty of appending a little drawing that was the plate card of the Secretary of the State Society at the annual dinner at the recent convention in Rochester



Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

Diseases of the Newborn By Abraham Tow, M.D. Octavo of 477 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$6.50

This book is rather encyclopedic. If one is looking for direct advice on an individual case, he can find it, but more than that, it goes into the philosophy of etiology and conditions and is interesting to the student.

The bibliography at the end of each chapter is extensive, one chapter alone having 110 references.

It is recommended for those who are interested in covering the subject well.

WALTER D. LUDLUM

Clinical Laboratory Diagnosis By Samuel A. Levinson, M.D. and Robert P. MacFate, Ch.E. Octavo of 877 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$9.50

This book covers the subject for student, physician and technician, and has special chapters on such subjects as laboratory procedures in pediatrics and legal medicine which often are not emphasized. The book has been compiled from an outline which has been distributed for several years to the students in clinical pathology at the University of Illinois, College of Medicine. Sometimes a brief review of anatomy, physiology, biochemistry, or other previous study is added to aid the student in correlating the normal and abnormal findings.

There is a section on bacteriology, one on skin tests and other biological examinations, and one on histological technique. It is a large book containing a wealth of information, some of which will not be found so conveniently elsewhere. It deserves recognition as a standard work on the subject.

WILLIAM E. MCCOLLUM

Experimental and Clinical Studies of the Spine of the Dog By Geoffrey B. Brook, D.Sc. Octavo of 122 pages, illustrated Baltimore, William Wood & Company, 1936 Cloth, \$2.00

This monograph represents work of the author carried out under the fellowship of the Royal Veterinary College in Edinburgh. It is a decidedly thorough study on anatomy, physiology and pathology of the spine. The

author discusses the characteristics, hydrodynamics and circulation of the cerebral spinal fluid in a precise fashion. Especially commendable is his contribution on the use of ascending and descending lipiodol as applied to the spine of the dog. He appropriately deals with general and local effects following the subarachnoid injection of lipiodol.

The neurological surgeon reading this monograph is at all points impressed with the parallel characteristics of the spine of the dog and that of the human. The bibliography is well chosen, and serves as a satisfactory basis of discussion for veterinary and clinical purposes. The work represents a genuine addition to physiological literature.

RUSSELL MEYERS

Cancer and Diet. With Facts and Observations on Related Subjects By Frederick L. Hoffman, LL.D. Octavo of 767 pages Baltimore, The Williams & Wilkins Company, 1937 Cloth, \$5.00

There has been so much research upon the subject of cancer that it seems impossible to approach it from any angle that has not already been thoroughly investigated. In this volume the author reviews the various dietary theories of cancer from the time of Hippocrates to the present. The modern diet is discussed together with the metabolism of cancerous patients. Suggestions are made concerning certain foods, and diets are indicated. The author concludes that "over-nutrition is common in cancer patients to a remarkable and exceptional degree, and that overabundant food consumption unquestionably is the underlying cause of the root condition of cancer in modern life." In view of the fact that the present Cancer Commission has announced that diet and the cancer problem are not related, this presentation is most interesting. A careful study of this ably presented view point will repay the time given.

HENRY M. MOSES

Charterhouse Rheumatism Clinic Original Papers Volume 1. Quarto of 203 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$5.25

This is the first volume of a new publica-

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tion, one feature of which is the presentation of research work *in extenso*. There are three papers: Pathogen Culture and its Bearing on the Classification of Chronic Rheumatic Disease, by H. Warren Crowe, is divided into two parts, covering bacteriology and technique of selective culture of organisms supposed to be in etiologic relation to rheumatism. The Differential Sedimentation Test, by Harry Coke, is a highly technical investigation of the sedimentation of colloids in its bearing on infection. Spondylitis Adolescents with Associated Changes in the Sacro-Iliac Joints, by S. Gilbert Scott, is an exhaustive study of 200 cases of spondylitis in young adults, with associated pathological changes in the sacro-iliac joints. This first volume represents an enormous amount of highly specialized work, much of which is beyond the average practitioner, but all of which should be available to those making an intensive study of rheumatism. Illustrations are profuse, and bibliography is abundant. If the succeeding issues measure up to the present one, we may look forward to something unique in the history of medical research and writing.

J. M. VAN COTT

Memoranda of Toxicology. By Max Trumper, B.S. Third edition. 16mo of 304 pages. Philadelphia, P. Blakiston's Son & Co., 1937. Cloth, \$2.00.

This is a compact treatise of the diagnosis, mode of action and treatment of poisoning. The various poisons are classified, mostly, corrosives, irritants, and those acting on the nervous system. Methods of their detection are given. In this edition newer sources of poisoning and recent advances in toxicology are discussed. There is also a chapter on first aid and newly developed views on antidotes and methods of treatment.

EDWARD H. NIDISH

The Psychology of Eating. By Lewis R. Wolberg, M.D. Octavo of 321 pages. New York, Robert M. McBride & Company, 1936. Cloth, \$3.00.

The title of this book hardly discloses the nature of its contents. The reviewer was pleasantly surprised by its most interesting subject matter. Dr. Wolberg has succeeded in gathering from many sources a material from which he was able to write a fascinating history of the dietary habits of man. There are interesting references to the origin of cookery, descriptions of gluttons and gourmets, and some unusual notes about cannibalism. He goes on to discuss the physiology of metabolism in a manner that makes an interesting story. It is profusely

illustrated with many engaging anecdotes. The scientific aspect of the entire book is accurate, and is highly recommended as readable and instructive on the subject of diet. The physician could wisely recommend this book to those of his patients whom he plans to reduce.

WILLIAM S. COLLENS

High Blood Pressure. By I. Harris, M.D. Octavo of 132 pages, illustrated. New York, Oxford University Press, 1937. Cloth, \$3.75.

High Blood Pressure is a little volume detailing the results obtained in an experiment planned carefully and carried out logically upon a selected group of "human guinea pigs." A number of important observations are made regarding the care and treatment of hypertension cases.

The osmotic pressure in the blood is maintained at a constant level. Disturbances in osmotic pressure raises the arterial pressure. The kidney becomes affected early in hypertension. The elimination of nitrogenous end products is delayed, the impaired renal function showing itself only after gross structural changes have taken place. Malignant hypertension, with its resultant uremia, is an end stage of the ordinary hypertensive case. Polyuria is a constant sign of early hypertension. Nycturia is a sign of advanced hypertension. High protein intake increases the arterial tension. To replace the wear and tear of the tissues, a low protein intake with fats and carbohydrates in sufficient quantities to provide the calories for fuel is required.

The book is a valuable contribution to the problem of high blood pressure.

SIMON FRUCHT

The Avitaminoses. The Chemical, Clinical and Pathological Aspects of the Vitamin Deficiency Diseases. By Walter H. Eddy, Ph.D. and Gilbert Dalldorf, M.D. Octavo of 338 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1937. Cloth, \$4.50.

This is an excellent presentation of the clinical aspects of the vitamins in relation to human dietary. It brings up to date the conclusions of important studies in this field, particularly the clinical manifestations of vitamin deficiencies.

The profession in clinical work has not paid sufficient attention to, or perhaps does not know of, the factors in diseases, such as rheumatic fever, the anemias, diabetes, arthritis, and many states of "poor health" that are directly the result of lack of proper diet prescription to include adequate, much less optimum vitamin content.

This work would have wider distribution

among the profession, as the author's clinical conclusions should have, if the text were constructed as a monograph, the experimental discussions in an appendix or in an additional monograph

PAUL C. ESCHWELER

Hay Fever With Special Reference to Treatment by Intranasal Ionization By Olive Shields, B.M. Octavo of 57 pages, illustrated. New York, Oxford University Press 1937. Cloth, \$2.50

This book of fifty-seven pages gives a brief account of the anatomy, physiology and pharmacology of the vasomotor mechanism of the nose, and deals largely with the author's technic of intranasal zinc ionization in the treatment of hay fever. The author, achieving excellent results in seventy-two patients treated in 1936, emphasizes the fact that his technic of small current for a short time period produces no sloughing. He proposes, as an explanation of the effect of ionization, the hypothesis that it corrects the local ionic imbalance which he believes is the basic etiology of allergic conditions.

His results are more fortunate than those obtained by many workers in this country who have observed their patients over a longer period of time.

MATTHEW WATZER

Medical Urology By Irvin S. Koll, M.D. Octavo of 431 pages, illustrated. St. Louis The C. V. Mosby Company, 1937. Cloth \$5.00

Although this book comprises only about four hundred and twenty-five pages, it is quite comprehensive, covering the field of non-surgical urology in a thorough, painstaking manner. The book is well illustrated throughout. Dr. Koll has followed the newer and more popular method of listing references at the end of each chapter. He deserves credit for his useful contribution, and for the time and effort involved in its preparation. Practitioners and students should find it a useful and helpful guide having some advantages over the usual larger textbooks of urology. Perhaps its greatest usefulness will be to general practitioners located where urological advice and consultation are not always readily available.

AUGUSTUS HARRIS

Senile Cataract Methods of Operating By W. A. Fisher, M.D. Third revised edition. Duodecimo of 150 pages, illustrated. Chicago, H. G. Adair Printing Co., 1937. Cloth, \$2.00

This is the third edition of a book which originally was chiefly devoted to the intra-

capsular operation for cataract according to the method of Col. Smith. The book is now much broader in its purpose, and all methods of cataract extraction are discussed. The first chapter of 8 pages is by Ernst Fuchs and is worth the "price of admission." How so much wisdom could be packed in such a small space cannot be explained except by saying that it is typical of all the publications by that exceptional teacher.

The extraction by the method of Barraquer is explained by the originator while Dr. Holland of India explains the Smith technique. Dr. Wright of Columbus describes the regular method of extraction as it has been used for such a long time. The intracapsular methods of Knapp and Elschnig are briefly given and Dr. Fisher details the Homer Smith method of operating immature lenses. The author was one of the first to use the Smith technique and introduced his lid hooks that made this operation satisfactory and much safer.

In chapter VI the author gives advice from his extensive practical experience with the intracapsular methods and supplies many details of preparation of the patient and operating room as well as selection of instruments and training of assistants that apply to all forms of eye surgery. In such a small book the details must be limited but the plan of giving the technique by its originator is most praiseworthy. It is an excellent idea to collect the different operative procedures in one book so that beginners in ophthalmology can review the details of various methods.

RALPH I. LLOYD

Sexual Power By Chester T. Stone, M.D. Duodecimo of 172 pages, illustrated. New York, D. Appleton-Century Company, Inc. 1937. Cloth \$1.50

The reviewer is not in sympathy with the publication of this type of sex book for the laity.

We believe that possibly more harm than good may result, especially in sensitive neurotic individuals. Persons of average intelligence, with difficulties of sex function, would naturally consult their physician for confidential advice and proper guidance.

While it is advisable to bring the subject of venereal diseases into the light of day, it may prove disastrous psychologically to dwell upon the functional aspects of sex. This author, however, has manifested his sincere efforts in the preparation of the book. How much the average lay reader will gain is open to question.

AUGUSTUS HARRIS

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THE USES OF PROTAMINE ZINC INSULIN

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The introduction in 1922 of the pancreatic hormone—insulin—has produced a great improvement in the condition of our diabetic patients. The earliest relatively crude extracts of pancreas, which often gave rise to irritation and even to sterile abscess formation, produced a prolonged effect on the blood sugar of man and animals, abolished ketosis, and permitted the use of more adequate diets for diabetics. More adequate control of infections and coma likewise followed. The use of these products, however, frequently sensitized the patients to the accompanying proteins or, due to their content of inorganic salts, caused an intense burning sensation, and methods of purifying them were therefore devised. With increasing purity of the product, however, the duration of action of the insulin was shortened, and at the same time its activity became more intense. For those patients capable of providing sufficient insulin for their own endogenous metabolism, but not sufficient to cope with the intake of carbohydrates following meals, a reasonable balance could be secured by using the unmodified insulin in two daily doses. It was found, however, that a steadily increasing number of patients required a greater number of injections per day, and hypoglycemic reactions became more numerous. The patients oscillated between hyperglycemia and hypoglycemia. The greater their

pancreatic insufficiency or the higher the level of carbohydrate in the diet relative to their natural tolerance, the more difficult it became to maintain such patients within normal limits. Indeed in many instances, through lack of understanding of the mechanisms involved, such unstable patients were placed in an insulin-sensitive or insulin-resistant class, and adequate treatment abandoned.

With the limitations of unmodified insulin in mind, numerous attempts to prolong the action of insulin have been made. Relatively little success attended these efforts until recently, when the investigations of two different laboratories produced improvements which, when combined, gave us the protamine zinc insulin now obtainable commercially.

Hagedorn and his associates have shown that the protamines, long known to cause precipitation when mixed with other higher proteins, would give precipitates with insulin. These precipitates varied in their degree of insolubility with the particular protamine, and with the hydrogen ion concentration to which they were exposed. A combination of the protamine obtained from *Salmo iridius* with insulin proved to be fairly highly insoluble at the hydrogen ion concentration of the body. A suspension of this precipitate of protamine and insulin injected under the skin is but slowly dissolved, thus slowly releasing the insulin to carry out its usual

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester May 25 1937*

function in the body. Hagedorn and his collaborators were able to show that the period of effectiveness of the insulin in diabetic treatment lasted two to three times as long as ordinary or unmodified insulin. Combinations of insulin with some other protamines were less effective however. Confirmation of these facts in animals and man, with protamine kindly furnished by Professor Hagedorn, was soon supplied by Joslin's associates, the group working in Toronto, and by others. It appeared that iroidus protamine insulin could be relied upon for effectiveness for some sixteen hours, and would therefore reduce the number of injections required by the patient to not more than two per day. Sometimes only one injection per day was required.

The most useful method of employing this compound was found by Hagedorn to consist in administering to diabetic patients on a controlled diet a dose of the quick-acting unmodified insulin in the morning, and a dose of the compound insulin in the evening. The advantages of this preparation besides the reduction in the number of doses required by severe diabetics, were reduction in the number of reactions encountered, a better control of ketosis, and a much more even course of the blood sugar throughout the day.

Replenishment of our supply of protamines was undertaken by Scott and Fisher working under Professor Best's direction in the Connaught Laboratories. A suitable protamine was produced from the spring or king salmon, *Oncorhynchus Tschawytscha* of the West Coast. The considerable advantage of being able to treat patients with a single dose of insulin rather than with two doses, early led us to attempt variations on Hagedorn's method. In *Oncorhynchus* protamine insulin we found a preparation which was highly effective for about twenty-two hours in man, and a residual effect lasting somewhat longer. Kerr, working in Best's laboratory, was able to confirm this in animals. Treatment with the single large dose was effective in a considerable proportion of our cases, and we were confirmed in this view by Joslin's and Wilder's groups, working independently. It was apparent, however, that the overlapping of the single doses was hardly

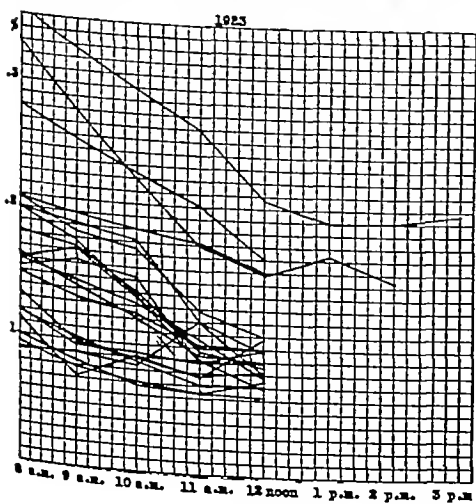
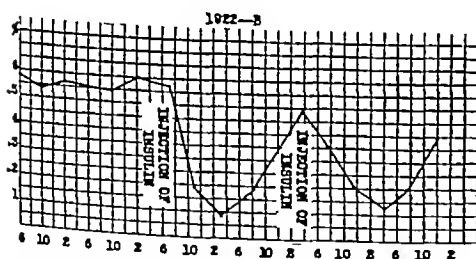
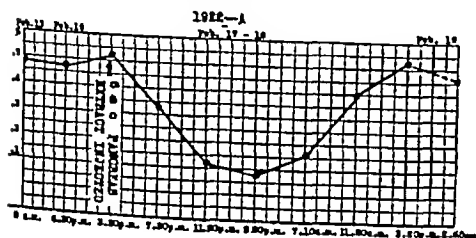
great enough in some instances, and the desirability of further prolongation of action was manifest. The attack on this problem then shifted to new ground.

Crystallization of insulin, it will be remembered, was accomplished by Abel in 1926. Many difficulties surrounded the successful repetition of this experiment until it was shown by Scott of the Connaught Laboratories, University of Toronto, that crystallization of insulin takes place only in the presence of certain inorganic salts, notably zinc, which is also present in the pancreas. Indeed Scott has shown that zinc is a constituent of the insulin crystal. Scott and Fisher were also able to show that insulin to which minute quantities of zinc were added produced a longer effect on the blood sugar in animals than insulin without this addition. We were able to duplicate this effect in patients with quantities of zinc far below those required to cause local injury, but the effect was much inferior to that of the protamine insulin compounds.

Rabinowitch and Wilder have had similar experiences. Scott and Fisher also showed that the effectiveness of the protamine insulin compound is materially reduced when it is uncontaminated by zinc, and, on the other hand, the addition of minute quantities of zinc to the mixtures of protamine and insulin produced a complex precipitate effective in their animals, and in those of Kerr, for much longer periods, besides conferring on it certain other valuable properties which make it possible now to dispense it in a single bottle prepared for immediate use. Other metals have a similar though less satisfactory effect. Clinically, in our hands, this addition has lengthened the effectiveness of insulin to more than thirty hours. In other words, today's breakfast, and even to some extent, tomorrow's breakfast, is metabolized under the influence of yesterday morning's dose of protamine zinc insulin, with some little effect from the injection immediately preceding the meal. In increasing degree, the carbohydrate load of lunch and dinner in excess of the natural insulin production of the patient is borne by the preceding dose of protamine zinc insulin. One can readily visualize how much more constant the blood sugar will remain

under these circumstances than when only unmodified insulin is used. The clinical advantages possessed by this modification of insulin have now been confirmed in several thousand cases of diabetes mellitus. Individualized treatment of diabetes is, however, no less necessary than heretofore, and one would not have you believe that the ultimate goal in diabetic treatment has been reached. Indeed, there still remain disadvantages in the treatment of patients

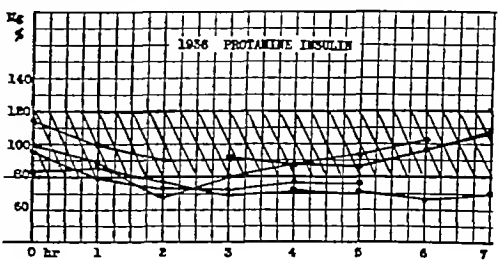
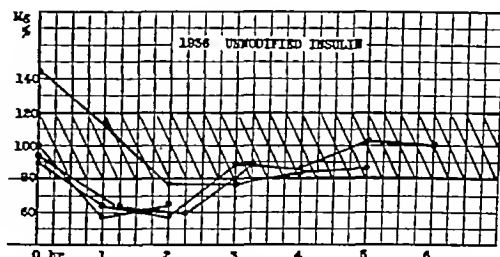
CHART I—CURVE 1 INDICATES EFFECT OF "PANCREATIC EXTRACT" IN LOWERING BLOOD SUGAR IN FIRST PATIENT TREATED. CURVE 2, EFFECT OF INJECTION OF EARLY INSULIN ON BLOOD SUGAR. CURVE 3 SHOWS FALL IN BLOOD SUGAR FOLLOWING INJECTION OF 20 UNITS OF A MORE PURIFIED INSULIN



with protamine zinc insulin, inherent in the properties of the substance, which will only be overcome by much further work. That many of these will be overcome in the near future is not to be doubted. In the meantime, however, it stands as a distinct advance in the treatment of the condition. I would also remind you that numerous compounds of insulin with dibasic amines, histones, tannin, iron, etc., are now known. Their properties are under investigation and it may be that, in the near future, treatment of diabetes will be better accomplished by a substance not at present in use.

Though it is probable that occasionally cures of diabetes do take place, in the main the condition must be regarded as a controllable, though incurable, disorder of metabolism. Adequate treatment must include rest to the injured organ, adequate food on which to grow, live, work, and play together with a restoration of the abnormal chemical state to a condition within physiological limits. Abolition of glycosuria, hyperglycemia, and ketosis must necessarily be accomplished if the patient is to receive maximum benefit from his treatment, not merely for the moment, but also for his future welfare. In recent years we have learned much about dietetic programs, but how far in any direction we may go with impunity is only slowly becoming apparent. It seems

CHART II



quite clear that where extremes are unnecessary they are also undesirable. It is also clear that early strict treatment and a continuous control of all cases of diabetes furnish the only satisfactory results. For a proportion of cases, readjustment of their dietetic regime will be adequate, for others, insulin to supplement that produced by the damaged pancreas may be required. Various means of determining which patients belong in which group have been recommended. I prefer, at the outset, to give to the patients a diet approximating their basal caloric requirement and subsequently raise it by successive increments to a maintenance level. Those whose natural tolerance or insulin production is adequate to furnish them with a maintenance diet do not need insulin, *per contra*, the others do.

What part shall the newer insulins play in the treatment of the diabetic? The answer lies in the properties peculiar to the different insulins. Unmodified insulin acts rapidly to restore serious metabolic derangements toward the normal, but unless carefully controlled, may easily expose the patient to the dangers of other metabolic derangements. Injected into the body it does not exactly imitate the normal secretion of insulin which becomes available in quantities adequate to meet the needs of the moment. Nor does protamine zinc insulin behave in a manner analogous to the normal insulin physiologically supplied. To meet some situations the ordinary insulin is too rapid, confronted with other situations the protamine insulin is too slow in its action. The endogenous metabolism of the individual is better supported by an insulin which is slowly released, as is the case with the combined insulins. A sudden influx of carbohydrate from the digestive tract is better disposed of by a rapidly acting insulin. For emergency purposes also, for quickly correcting the state of coma or precoma, for use during infections, for pre- and postoperative use, unmodified insulin is superior. We have, however, by the multiple dose method, been stretching the properties of unmodified insulin to cover the requirements of those diabetics most in need of support for their endogenous metabolism, and permitting those not so urgently requiring this support to carry through most of the twenty-four hours

without it. For both these latter types of cases protamine zinc insulin is the more valuable. In certain respects the protamine insulinate of Hagedorn was superior to the present protamine zinc insulin. But we have need of insulins with all the properties of both types separately, and also suitably combined together. Perhaps with a telescope to your mind's eye you can see such a combined insulin.

In the meantime there is an enormous psychological advantage in treating those patients who are producing too little insulin with a single dose in the early morning, thus leaving them free to plan their day without the further necessity of providing for additional insulin injections. This leads us to inquire whether we may reverse the procedure at present in use with unmodified insulin of treating the patient to counteract the peak loads produced by carbohydrate ingestion. May we, by using an insulin designed to control the endogenous metabolism of the individual, permit the pancreas to accumulate its own meager store of insulin for release during the period of the peak load after meals? Whether or not the explanation suggested holds good, there is adequate evidence that, by slightly overtreating the endogenous metabolism with compound insulin, a more successful maintenance of physiological conditions throughout the twenty-four hours may be accomplished. It would appear probable that most patients requiring insulin because of chronic insufficiency of their own insulin producing mechanism, fare better with the compound insulin than with the unmodified product. Some brief case reports will illustrate the type of results obtained. It is, of course, possible to begin the treatment with protamine zinc insulin by administering a small dose $\frac{1}{2}$ to $1\frac{1}{2}$ hours before breakfast and thereafter increase the dose until an adequate control is attained, and to many this plan will commend itself. In many instances, however, the time required will prove inordinately long since the development of maximum effect of the combined insulin is so slow. The same result may be attained more rapidly and an idea of the dose required may be obtained by making the patient sugar free with ordinary insulin and then transferring him to protamine zinc insulin later. Since a com-

parison between the effects of the two insulins was desired, the latter method has been adopted in the following cases

Charts I and II illustrate the difference in action of two insulins. The first chart* shows that the 1922 insulins had an effect on the blood sugar of diabetics lasting from twenty-four to twenty-seven hours, while in 1923 a purer insulin acted much more rapidly, the blood sugar reaching its low point in about four hours.

Chart II shows the effect of equal doses, twenty units, of present day unmodified insulin and protamine insulin on the same persons during fasting. With the unmodified insulin the maximum lowering of blood sugar is attained in one to two hours and the blood sugar lowering effect is over in three hours. With protamine insulin on the other hand the fall is less precipitous and may last for many hours. Larger doses in each case will tend to prolong the action, but this effect is more pronounced in the case of protamine insulin, while the probability of inducing overdosage symptoms is greater in the case of the unmodified insulin.

CASE 1 A fifty-eight year old male, admitted for hemorrhoidectomy, was found to have great thirst and loss of weight for the past year. Marked glycosuria and a fasting blood sugar of 0.166% were found, but his general physical condition was good. He was treated by diet and an increasing amount of insulin.

On a diet of P 50, F 197, C 54, he required twenty-five units of unmodified insulin twice daily to maintain normal blood sugars and freedom from glycosuria and ketosis. Curve 1 in Chart III shows a fairly successful control of the blood sugar with two sharp falls after the insulin was administered. Transferred to a single dose of thirty units of protamine zinc insulin the blood sugar was successfully controlled as shown by Curve 2. In each case a post-prandial rise in the blood sugar is seen following the noon meal, but this is within the normal limits.

He has remained free of glycosuria and ketosis on this program for the past ten months. Fasting blood sugars are normal. Saving of insulin, forty per cent.

CASE 2 A woman, aged seventy-two, had diabetes and pruritis vulvae. Eight years progressive diminution of vision, four years

TABLE I—CASE 1

Date	Urine					Blood		Insulin units	
	Vol. cc.	R.	Sp G	Sug Qual.	S N P	Fs Cts	Sug %	Cholesterol	8-00 A.M. 4-30 P.M.
7/24	70 ac.		1029	0	0	0			15 15
25	400 alk.		1028	1	4	4			15 15
26	400 ac.		1024	tr	4	0			15 15
27	400 ac.		1025	0	3	0	140		15 20
28	750 alk.		1026	0	3	2			20 20
29	400 ac.		1020	0	3	0			20 20
30	800 ac.		1023	0	3	0	107		20 24
31	800 ac.		1023	0	4	0			24 24
8/1	800 alk.		1024	0	0	1			24 24
2	750 ac.		1022	0	0	0			24 24
3	1000 ac.		1021	0	2	1			24 24
4	600 alk.		1020	0	2	1	110	212	24 23
5	800 ac.		1022	0	1	0			28 23
6	500 ac.		1020	0	2	0			25 23
7	800 ac.		1018	0	4	0	111		28 23
8	1000 ac.		1014	0	1	0			28 23
9	1000 ac.		1016	0	2	0			28 23
10	800 ac.		1010	0	2	0	059	193	28 23
11	700 ac.		1020	0	tr	0	110		25 25
12	1200 alk.		1018	0	2	0			25 25
13	700 ac.		1019	0	0	0	080		35 15
14	1000 alk.		1018	0	0	0			35 15
15	1300 alk.		1017	0	0	0			35 35
16	800 alk.		1020	0	0	0			35 35
17	700 ac.		1012	0	3	0	077		30 30
18	800 ac.		1017	0	3	0			30 30
19	1300 ac.		1020	0	0	0		276	30 30
20									30 30
21	700 1019	1017		0	2	0			30 30
22	1000 1012	1012		0	tr	0			30 30
23									30 30
24							077		25 25

TABLE II—CASE 2

Date	Urine					Blood		Insulin units	
	Vol. cc.	R.	Sp G	Sug Qual.	S N P	Fs Cts	Sug %	Cholesterol	8-00 A.M. 4-30 P.M.
8/22	1700 ac.		1010	0	2	0			24 24
23	800 alk.		1012	0	3	2			24 24
24	800 ac.		1014	0	0	0	124	275	24 24
25	300 ac.		1020	0	1	0			24 24
26	1000 alk.		1009	0	2	0			24 24
27	1300 ac.		1009	0	2	0	145		24 30
28	1200 ac.		1011	0	1	1			30 30
29	1300 alk.		1011	0	3	0			30 30
30	1100 ac.		1009	0	1	0			30 30
31							120	239	30 30
9/1	800 ac.		1009	0	1	0			30 30
2	750 alk.		1007	0	1	3			30 30
3	800 alk.		1018	0	3	1	127		30 30
4	2000 ac.		1010	0	1	0			30 30
5	400 ac.		1015	0	3	0			40 20
6	1200 ac.		1010	0	2	0			40 20
7	1400 ac.		1009	0	0	0			40 40
8	800 ac.		1010	0	2	tr	094		40 40
9	1850 ac.		1009	0	tr	0			40 40
10	1800 ac.		1010	0	tr	0			40 40
11	1100 alk.		1016	0	1	0	096		40 40
12	1800 ac.		1010	0	1	0		279	40 40
13	2000 ac.		1008	0	1	0			40 40
14	1000 ac.		1016	0	1	0	059		40 40
15	1300 ac.		1010	0	1	0			30 30
16	1700 ac.		1005	0	1	0			30 30
17	1200 ac.		1012	0	1	0			35 35
18	1250 ac.		1011	0	tr	0			35 35
19	1100 alk.		1005	0	tr	0			35 35
20	800 ac.		1016	0	2	0			35 35
21	700 ac.		1020	1	3	0	084	357	35 35
22	600 ac.		1021	0	tr	0			35 35
23	800 alk.		1020	0	3	0			35 35
24	1400 alk.		1011	0	0	0	093		35 35

Patient's weight, August 22, 150 lbs., August 29, 154 lbs., September 5, 150 lbs.

hypertension B P 175/100 Chronic degenerative myocarditis Cataracts Diabetes controlled on a diet of P 49, F 153, C 43, with thirty units of regular insulin twice daily

* The first curve is redrawn from one in *Can. Med. Assn. J.*, 12 141, 1922, and is here reproduced with their permission; the second and third curves are taken from the *Journal of Metabolic Research* 2 637, 1922

Curve 1 (Chart IV) shows the blood sugar remaining normal on this program through the twenty-four hours. One week after she was changed to forty units of protamine zinc insulin at 8 A.M. The blood sugar curve (curve 2) showed an unsatisfactory response after meals, but normal values were maintained after 8 P.M. On the tenth day on this program the morning fasting blood sugar fell to 0.059%, and the dose of insulin was reduced.

Curve 3 shows that on thirty-five units of compound insulin the blood sugar remains normal throughout the twenty-four hours.

CHART III—CASE 1

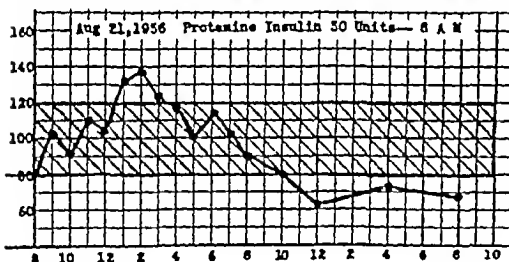
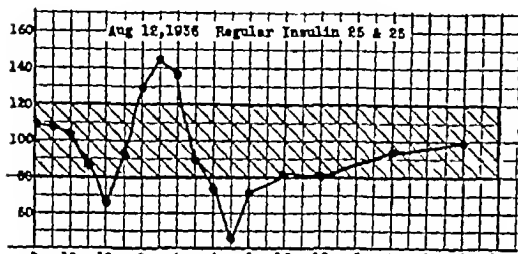
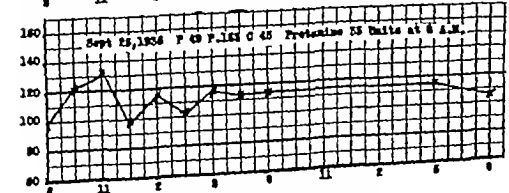
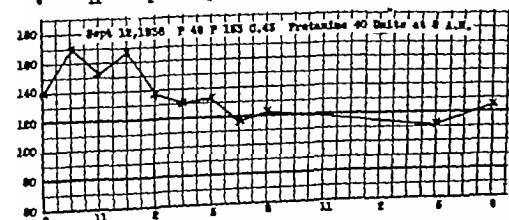
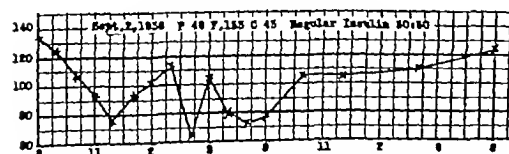


CHART IV—CASE 2



She has been successfully maintained on the same diet and insulin for the ensuing eight months. Saving of insulin, forty-five per cent. In this instance it seems apparent from curve 2 that an equilibrium had not been reached though the patient had been receiving protamine zinc insulin for a week prior to the test.

CASE 3 On admission a boy of fourteen years complained of polyuria and polydipsia for five months with weakness and numbness of both legs for the past month. Has lost considerable weight and feels sleepy and tired. Father and paternal grandmother, grandfather, and uncle have diabetes. General physical condition normal, except for loss of weight. Vessels soft. B.P. 118/70, reflexes normal. The numbness complained of was indefinite and uncertain. Blood sugar on admission 0.285%, glycosuria marked, no ketonuria. CO₂ C.P., 62 Vol %. On a diet of P 45, F 219, C 60, required twenty-five units of insulin twice daily to maintain normal blood sugars.

Curve 1 (Chart V) shows the effect on the blood sugar curve during the twenty-four hours. A slight rise took place after breakfast, followed by a rapid fall at noon, a rise following lunch, and a further fall commencing at the time of the second injection and slow rise during the night.

Curve 2 taken when but a single daily injection of twenty-five units of unmodified insulin was given indicates the need for the second injection, the blood sugar, though showing an initial fall, rose next morning to 0.160%.

He was then given thirty-five units of protamine zinc insulin and on account of low blood sugars (no symptoms of reaction occurred) this was reduced to twenty units. The urine remained sugar and ketone free throughout, curve 3 shows that he remained within the normal band throughout the twenty-four hours. Saving of insulin, sixty per cent.

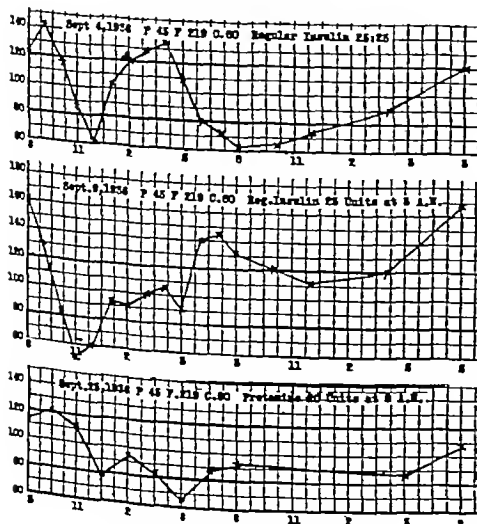
CASE 4 Male, aged forty-five. Sugar found in urine ten years ago. Amputation right leg seven years ago (Buerger's disease?). Adhered rather loosely to a qualitatively restricted diet. Having struck his left foot with his cane two weeks before, he was admitted to this hospital with thrombosis of left popliteal and medial plantar arteries and impending gangrene. Treatment proved unavailing and Griggs-Stokes amputation was done. The stump healed well. He became aglycosuric on a diet approximating his basal caloric requirement composed of P 36, F 130, C 35, and remained so when 5 C and 20 F—200 calories—were added to this. When the diet was raised to P 44, F 150, C 50,—1726 calories

—intermittent glycosuria appeared and the fasting blood sugar was above normal. Transferred to a diet of P 44, F 110, C 140, isocaloric with the last, glycosuria and hyperglycemia became marked and insulin was required. As the glycosuria was of the postprandial type, not successfully removed by small doses of protamine zinc insulin, a combination of protamine zinc insulin and regular insulin was advised.

TABLE III—CASE 3

Date	Urine					Blood		Insulin units	
	Vol. cc.	R.	Sp.G.	Sug Qual	S N P	Fe Cls	Sug %	Cholesterol	8:00 A.M.
8/24	800 ac.		1013	tr	3	0	204		20
25	700 alk.		1014	0	2	1			20
26	800 ac.		1008	0	2	0			20
27	900 ac.		1005	0	0	0	072		20
28	700 ac.		1008	0	1	0			20
29	700 ac.		1009	0	0	0			20
30	800 alk.		1013	0	1	0			20
31	900 ac.		1012	0	2	0	150		25
9/1	800 ac.		1009	0	1	1			25
2	600 ac.		1003	0	0	0			25
3	600 ac.		1012	0	1	0	123		25
4	900 ac.		1016	0	tr	0	123		25
5	900 ac.		1010	0	tr	0			25
6	600 alk.		1010	0	tr	0			25
7	700 ac.		1009	0	tr	0			25
8	700 alk.		1012	0	tr	tr	138		25
9	800 ac.		1011	0	1	0	160		25
10	700 alk.		1012	0	tr	0	121		25
11	800 ac.		1011	0	tr	0		305	25
12	800 alk.		1012	0	0	0			35±20
13	800 ac.		1009	0	2	0			35±20
14	900 alk.		1011	0	1	0			35
15	900 ac.		1012	0	1	0			30
16	800 ac.		1012	0	1	0	039		30
17	800 ac.		1010	0	2	0			30
18	800 ac.		1009	0	0	0	032		20
19	1500 alk.		1010	0	3	1			20
20	600 ac.		1018	0	tr	tr			20
21	1300 alk.		1021	0	1	0	079		20
22	600 ac.		1018	0	1	0			20
23	1200 ac.		1021	0	2	0			20
24	1300 ac.		1018	0	0	0	092		20
25	1300 ac.		1010	0	tr	0			20
26									20

CHART V—CASE 3



Curve 1 (Chart VI) shows the results on the blood sugar of thirty-five units of protamine zinc insulin and ten of unmodified insulin at 8 P.M. The hyperglycemia following breakfast is not quite satisfactorily controlled though no glycosuria occurred. The remainder of the day shows a satisfactory control of the blood sugar. Placed on the approximate equivalent of these insulins—namely forty units of protamine zinc insulin only—for seven days, the second blood sugar curve was obtained. While controlling the blood sugar during the day reasonably well the dose is not so satisfactory since the blood sugar during the night is

TABLE IV—CASE 5

Date	Urine					Blood		Insulin units	
	Vol. cc.	R.	Sp.G.	Sug Qual	S N P	Fe Cls	Sug %	Cholesterol	8:00 A.M.
7/27	900 ac.		1014	0	1	0		158	10
28	350 ac.		1026	0	1	0			10
29	900 ac.		1011	0	1	0			10
30	450 ac.		1022	0	4	2	107		15
31	450 ac.		1024	0	2	1			15
8/1	1200 ac.		1020	0	3	0			15
2	400 ac.		1024	0	3	0			15
3	400 ac.		1022	0	3	1			15
4	1125 alk.		1013	0	3	0	096	250	15
5	1300 alk.		1014	0	2	0			15
6	900 alk.		1011	0	4	2			15
7	1000 alk.		1014	0	4	2	040		15
8	1500 ac.		1012	0	0	0			15
9	1250 ac.		1013	0	3	4			15
10	800 ac.		1016	0	3	3	091	230	15
11	1400 alk.		1005	0	4	2			15
12	800 ac.		1014	0	4	3			15
13	1000 ac.		1014	0	4	3	122		15
14	600 ac.		1014	0	4	4			15
15	800 ac.		1022	0	tr	4			15
16	600 ac.		1020	0	4	2			15
17	1200 ac.		1012	0	4	3	128		15
18	1600 ac.		1011	0	4	4			15
19	1300 ac.		1012	0	tr	4			15
20	1200 ac.		1013	0	1	1	150	260	15
21	1600 ac.		1017	0	4	2			15
22	800 ac.		1016	0	3	1			15
23	1000 ac.		1012	0	0	0			15
24	1100 ac.		1010	0	3	3	145	223	15
25	1600 ac.		1012	0	3	2			15
26	1300 ac.		1010	0	1	1			15
27	2000 ac.		1000	0	1	1	161		15
28	1100 ac.		1010	0	1	tr			15
29	1100 ac.		1015	0	2	4			15
30	1000 ac.		1012	0	1	2			15±10
31	1000 ac.		1014	0	tr	2	147	264	15
9/1	1600 alk.		1015	0	tr	2			15
2	1300 ac.		1010	0	1	2			15
3	1300 ac.		1011	0	2	2	122		15
4	1400 ac.		1010	0	2	2			15
5	1300 ac.		1014	0	1	0			15
6	2100 ac.		1010	0	tr	tr			15
7	1100 ac.		1010	0	tr	0			15
8	1400 ac.		1012	0	2	3	144		15
9	1400 ac.		1005	0	tr	tr	149		15
10	1600 ac.		1012	0	2	tr			15
11	900 ac.		1018	0	3	2	114	252	15
12	1500 ac.		1011	0	1	2			15±10
13	1600 ac.		1010	0	2	1			15±10
14	1700 ac.		1010	0	tr	tr	109		15±10
15	1000 ac.		1018	0	tr	1			15±10
16	1600 ac.		1012	0	2	2			15±10
17	1400 ac.		1012	0	1	0			15±10
18	1300 ac.		1012	0	1	3			15±10
19	1600 ac.		1012	0	1	1			15±10
20	1200 ac.		1013	0	1	1			15±10
21	1600 ac.		1012	0	4	3	101		15±10
22	1200 alk.		1016	0	1	2			15±10
23	900 ac.		1014	0	2	3	122		15±10
24									15±10

Patient's weight, August 2, 128½ lbs. August 8, 128½ lbs., August 15, 130 lbs. August 23, 132 lbs. August 29, 131½ lbs. September 6, 127½ lbs. September 13, 126 lbs., September 19, 123½ lbs.

continuously in the hypoglycemic zone. Correction of the latter by reduction in the number of units of protamine zinc insulin will not be satisfactory because postprandial glycosuria will result. The alternative procedure in such cases as object to using the two insulins is the reversion to a diet lower in carbohydrate.

CHART VI—CASE 4

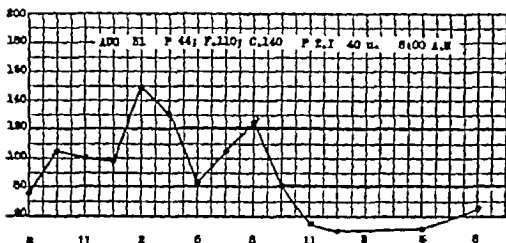
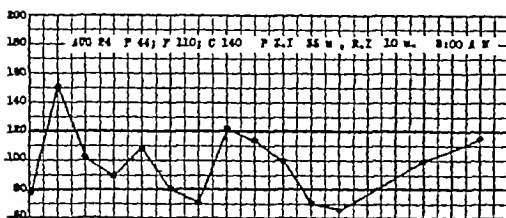
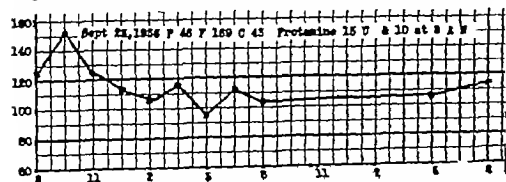
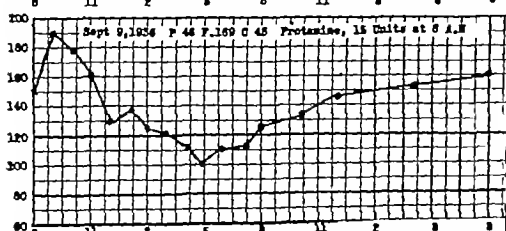
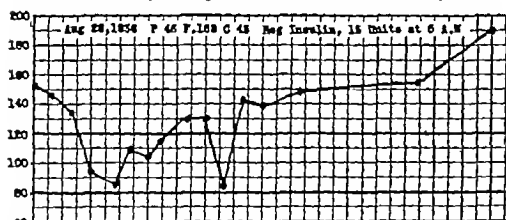
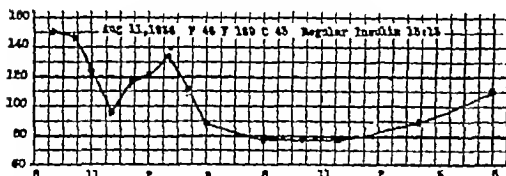


CHART VII—CASE 5



CASE 5 Female, aged fifty-four, was admitted to Toronto General Hospital in February 1936, with adenocarcinoma of the body of the uterus. She was given very intensive high voltage x-ray and radium therapy with, thus far, very satisfactory results. Readmitted in July for re-examination, sugar was found in the urine, which, on previous occasions, had been sugar free. Questioning revealed the development of a

TABLE V—CASE 6

Date	Urine				Blood		Insulin units		
	Vol cc.	R	Sp G	Sug Qual.	S N P	Fe Cts	Sug %	Cholesterol	8:00 A.M. 4:30 P.M. 11:00 P.M.
7/16	700 ac.		1020	0	0	0	160	28	28 10
17	1150 ac		1017	0	0	0		28	28 10
18	1400 ac.		1014	0	0	0		28	28 10
19	1700 ac.		1014	0	0	0		28	28 10
20	1100 ac.		1016	0	0	0	120 250	28	28 10
21	300 ac.		1015	0	0	0		28	28 10
22	1050 ac.		1014	0	0	0		28	28 10
23	650 ac.		1012	0	0	0	132	28	28 12
24	1100 ac.		1015	0	0	0		28	28 12
25	700 alk.		1012	0	0	0		28	28 12
26	600 ac.		1012	0	+	0		28	28 12
27	1000 ac.		1015	0	0	0	086 210	28	28 12
28	500 ac.		1018	0	0	0		28	28 12
29	1050 ac.		1014	0	+	0		28	28 12
30	1100 ac.		1016	0	0	0	098	28	28 12
31	400 alk.		1017	0	0	+		28	28 12
8/1	300 ac.		1017	0	+	0		28	28 12
2	800 ac.		1017	0	0	0		28	28 12
3	900 alk.		1020	0	0	0		25	28 12
4	225 alk.		1015	0	+	+	074	261	28 10
5	200 alk.		1025	0	0	2+		25	28 10
6	200 ac.		1015	0	0	0		25	28 10
7	500 alk.		1020	0	0	0	097	23	28 10
8	400 alk.		1012	0	0	0		25.4.45	20
9	200 alk.		1015	0	0	0		25.4.45	
10	650 alk.		1026	0	+	+	071	45	
11	800 ac.		1019	0	+	0		40	
12	800 ac.		1018	0	+	0		40	
13	500 ac.		1020	0	0	0	112 230	40	
14	1000 ac.		1013	0	0	0		40	
15	700 alk.		1015	0	0	0		40	
16	200 ac.		1017	0	0	0		40	
17	250 ac.		1020	0	0	0	112	40	
18	600 ac.		1013	0	2+	0	247	40	
19	800 ac.		1020	0	+	0		40	
20	400 ac.		1020	0	tr	0	109	40	
21	600 ac.		1020	0	tr	0		50	
22	700 ac.		1018	0	0	0		50	
23	900 ac.		1015	0	+	2+		50	
24	700 alk.		1020	0	tr	0	064 210	50	
25	500 ac.		1017	0	tr	0		50	
26	1100 ac.		1016	0	+	0		50	
27	400 ac.		1015	0	tr	0	073	50	
28	800 ac.		1017	0	+	0		50	
29	500 ac.		1017	0	+	0		50	
30	600 ac.		1011	0	0	0		50	
31	1400 alk.		1012	0	+	tr	118 262	50	
9/1	1200 ac.		1010	0	0	0		50	
2	1100 ac.		1011	0	0	0	140	50	
3	600 ac.		1010	0	+	0	135	50	
4	800 ac.		1012	0	tr	0		50	
5	1600 ac.		1010	0	tr	tr		50	
6	400 ac.		1018	0	0	0		45.4.15	
7	800 ac.		1015	0	0	0		45.4.15	
8	200 alk.		1018	0	tr	0	053	45.4.15	
9	1200 ac.		1008	0	0	0		45.4.15	
10	1300 alk.		1012	0	tr	0		45.4.15	
11	500 ac.		1014	0	tr	0	109	45.4.15	
12	400 ac.		1013	0	0	0	230	45.4.15	
13	1200 ac.		1007	0	0	0		45.4.15	
14	800 alk.		1010	0	0	0	048	45.4.15	
15	700 ac.		1018	0	0	0	071	40.4.15	
16	1200 ac.		1012	0	0	0		40.4.15	
17	1500 ac.		1010	0	0	0		40.4.15	
18	800 ac.		1010	0	0	tr	047	40.4.15	
19	900 ac.		1014	0	+	0	049	40.4.15	
20								35.4.15	
21									

Patient's weight, July 26, 160 lbs. August 23, 159 lbs., September 13, 162 lbs. September 19, 156 lbs.

diabetic symptomatology in the interval and a blood sugar tolerance test was confirmatory. In May she had developed a paralysis of the right external rectus muscle. The patient became sugar free on a maintenance diet of P 46, F 169, C 43, by the aid of fifteen units of regular insulin twice daily. Curve 1 (Chart VII) shows the range of blood sugar throughout the twenty-four hours on this program.

Curve 2, obtained after a prolonged trial of a single dose of fifteen units of unmodified insulin daily, shows a failure of adequate control though the patient remained aglycosuric with moderately raised fasting blood sugar levels. The substitution of fifteen units of protamine zinc insulin for the regular type failed to show much improvement (See curve 3). It is not improbable that in this case a somewhat larger dose of protamine zinc insulin would have controlled the blood sugar adequately. That point will be determined on a later admission. The method adopted, however, was to use fifteen units of the combined insulin to control the endogenous metabolism with ten units of regular insulin to lower the postprandial blood sugar. Both doses were given before breakfast. Curve 4 demonstrated that satisfactory control was obtained. The saving of insulin in this case is comparatively small.

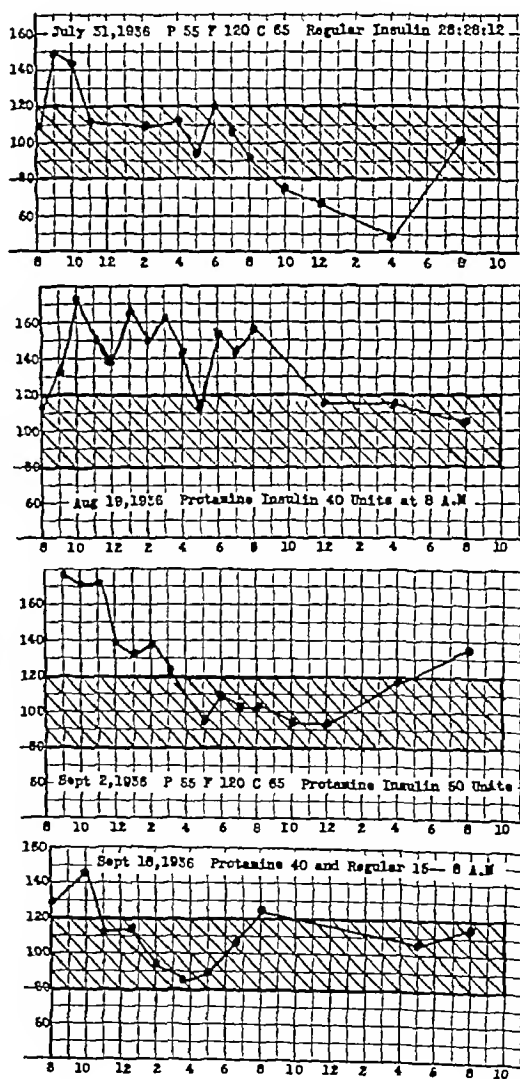
CASE 6 Female, aged seventy-three, was first admitted to Toronto General Hospital in 1924 with symptoms of diabetes dating back one year. Hypertension and chronic myocarditis and chronic glomerulonephritis were recognized at this time. She was rendered aglycosuric by diet alone but two years later required insulin. In 1930 her vision became impaired due to retinal changes. Two years ago hypertension increased and she noticed pain in the chest with dyspnea on exertion. The severity of this has been increasing. In April a more severe attack of pain lasting two hours with great shortness of breath was experienced. Nocturnal dyspnea then commenced. No edema of the feet. Readmitted in July 1936 with coronary thrombosis and acute pulmonary edema, she improved in an oxygen tent. On a diet of P 55, F 120, C 65, the diabetes was not adequately controlled by thirty units of regular insulin bid but greater success was attained by the use of twenty-eight units before breakfast and supper with twelve units of regular insulin at 11 P.M. The first curve shows however, that on this regime the blood sugar fell too low at night. Substitution of forty units of protamine zinc insulin proved a little more satisfactory in this respect but

failed to control the postprandial hyperglycemia as shown by curve 2 (Chart VIII).

From curve 3 it seems apparent that even fifty units of the slowly absorbed insulin was not available in sufficient amounts at meal time to deal adequately with the carbohydrate content of the meals. She was therefore given a combination of the two insulins—forty units of protamine zinc insulin and fifteen of the unmodified insulin proved adequate (See curve 4).

CASE 7 Male, aged seventy-five, diabetic four years, arteriosclerosis, gangrene right foot with Griggs-Stokes amputation. Diet was P 50, F 170, C 50. He was stabilized on twenty-five units of regular insulin twice daily and healing of the stump was well-advanced before this record commences.

CHART VIII—CASE 6



The dose of unmodified insulin was later reduced to twenty units bid. The first curve (Chart IX) indicates that an excess of insulin was being administered in the morning dose but the rapid rise in the blood sugar after 11 P.M. showed the need for a sustaining dose to assist in his endogenous metabolism.

Curve 2 taken on the fifth day after placing him on a single dose of twenty units perhaps indicates this more clearly. Though he remained aglycosuric during this time the morning fasting blood sugars likewise indicate the insufficiency of the single dose by a rapid rise to 0.200%.

He was transferred in the usual manner to thirty units of protamine zinc insulin in a single morning dose. As this dose lowered the fasting blood sugar to 0.051%, a change to twenty-five units was made, which proved to be adequate.

Curve 3 shows that his blood sugar rises slightly after the noon meal, but not more than that of a normal person and thereafter drops back to normal levels. We had an opportunity to observe him four months longer in the hospital, during which time his urine remained sugar free and the blood sugars normal. He was discharged to a home for the aged, having been satisfactorily controlled on twenty-two units of protamine zinc insulin for about three months. Saving of insulin, about fifty per cent.

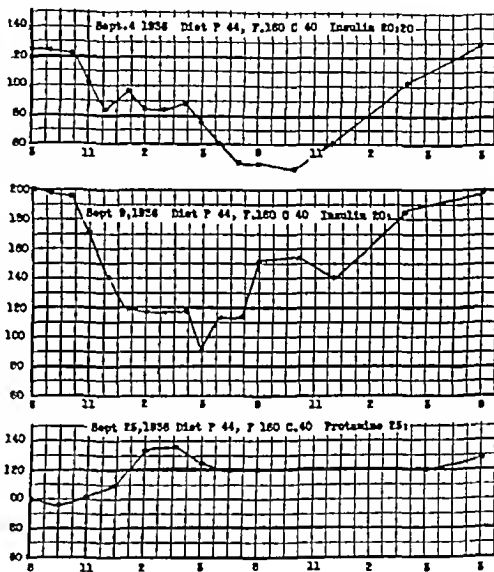
Discussion

For the sake of clarity in the charts accompanying the case reports, the limits of the normal blood sugar levels, 80 to 120 mg per 100 cc of blood, have been emphasized. While temporary fluctuations of some considerable size due to excitement, pain, fear or other emotional causes may sometimes occur in the sugar content of normal blood, the most frequent variation from the normal band occurs following the meals during carbohydrate absorption. It may be entirely absent and seldom exceeds 140. Much less frequently, and usually following late after excessive carbohydrate ingestion, the blood sugar falls to hypoglycemic levels. The relative constancy of the normal twenty-four hour blood sugar curve may be used as one of the criteria for determining the effectiveness of a treatment in a case of diabetes mellitus. By this measuring stick, that is restoration of the diabetic to the normal physiological limits, it must be acknowledged

that many of our previous types of treatment fall more or less short of being satisfactory. Suitable application of protamine zinc insulin, with or without the use of unmodified insulin in addition now makes possible in all cases of diabetes the restoration of normal blood sugar levels throughout the twenty-four hours.

The twenty-four hour blood sugar curve establishes definitely whether or not the patient is being successfully controlled. It presents certain difficulties in the routine treatment of patients and is

CHART IX—CASE 7



no longer necessary for the majority of patients. It is reasonably certain in most cases that (1) if the patient is sugar free throughout the day, (2) has a low normal fasting blood sugar, (3) a blood sugar below 0.140% two and one-half hours after breakfast, and (4) no evidences of hypoglycemia in the late afternoon or evening, his blood sugar curve will fall within the usual limits. The question whether or not the diet prescribed is adequate is only to be answered by continued observation. It is, of course, no less important than with the unmodified insulin, that the patient should be adequately trained in dietetic measures, how to give insulin, the symptoms and dangers of hypoglycemia and how to cure it, elementary urinalysis, etc.

Modifications of the Single Dose Method

In a small group of cases it is obvious that many of the methods employed cannot be illustrated. With protamine zinc insulin it is not nearly so difficult to obtain normal fasting blood sugars as with unmodified insulin. In a sense this may

TABLE VI—CASE 7

Date	Unne					Blood			Insulin units	
	Iol	P	SpG	Sug Qual	S N P	Fe (L)	Sug %	Choler terol	8:00 A.M.	4:30 P.M.
8/20	500 alk.		1032	0	4	1	135		25	25
21	700 ac.		1023	0	2	0			25	25
22	600 alk.		1023	0	4	1			25	25
23									25	25
24	200 ac.		1023	0	1	0	120	201	25	25
25	300 ac.		1023	0	1	0			25	25
26	300 alk.		1012	0	4	1			25	25
27	600 ac.		1023	0	3	0	001		25	25
28	600 ac.		1024	0	1	0	049 reaction		25	25
29	700 ac.		1021	0	4	0	043		25	25
30	600 alk.		1024	0	1	0			25	20
31	400 alk.		1015	0	0	0	137	206	20	20
9/1	600 alk.		1021	0	0	tr			22	22
2	500 ac.		1020	0	3	0	090		22	22
3	500 alk.		1023	0	1	2	127		22	20
4	500 ac.		1022	0	2	1			20	20
5									20	20
6	300 alk.		1020	0	4	1			20	20
7	300 alk.		1022	0	1	3			20	20
8	600 alk.		1025	0	0	0	156		20	20
9	500 alk.		1023	0	tr	0	202		20	20
10	400 alk.		1024	0	tr	0			20	20
11	500 alk.		1020	0	0	0	200	242	20	20
12	500 ac.		1020	0	0	0			30&15	15
13									30&15	
14	400 ac.		1026	0	0	0			30	30
15	900 alk.		1020	0	0	0	034		30	30
16	400 alk.		1020	0	2	0			30	30
17	800 alk.		1022	0	3	0			30	30
18	600 alk.		1021	0	1	tr	092		30	30
19	700 alk.		1022	0	4	1			30	30
20	250 ac.		1023	0	tr	0			30	30
21	700 alk.		1022	0	1	0	051	221	30	30
22	700 ac.		1023	0	0	0			25	25
23									25	25
24	900 ac.		1026	0	1	0			25	25
25	400 ac.		1032	0	3	tr	089		25	25
26	700 ac.		1027	0	2	0			25	25
27	700 alk.		1021	0	1	0			25	25
28	400 ac.		1020	0	2	0	031	205	25	25
29	600 ac.		1027	0	1	tr			25	25
30	800 ac.		1032	0	1	0			25	25
10/1	200 alk.		1022	0	1	0	038		25	25
2	800 alk.		1013	0	3	tr			25	25
3	600 alk.		1020	0	1	0			25	25
4	200 alk.		1015	0	1	0			25	25
5	700 ac.		1018	0	3	0	069	224	25	25
6	800 ac.		1022	0	1	tr			25	25
7	200 alk.		1010	0	tr	0			22	22
8	600 ac.		1024	0	2	1			22	22
9	800 alk.		1020	0	2	0	104		22	22
10	500 ac.		1030	0	2	0			22	22
11	600 ac.		1020	0	2	0			22	22
12	1000 alk.		1020	0	3	0			22	22
13									22	22
14	1500 alk.		1020		3	0	057		22	22

tion of the zinc modification permits an overlapping of the effects of two or more doses of insulin so that protamine zinc insulin controls hyperglycemia and glycosuria after breakfast decidedly more effectively than the earlier protamine insulin. It is, however, definitely inferior to unmodified insulin for this purpose. When necessary, a dose of both insulins may be given in the morning with good effect. This is particularly useful with the higher carbohydrate diets. Moving back the time of injection two or three hours before the expected meal in order that more insulin may be absorbed is of some value. It is not so effective as it was with the protamine insulin of Hagedorn, because the absorption rate is slower. Hagedorn's most commonly used procedure of administering a dose of regular insulin in the morning and a dose of protamine insulin in the evening is now seldom required. Because of the longer period of action of protamine zinc insulin, both insulins, if necessary, may now be administered in the morning. Likewise the use of a second overlapping dose of protamine zinc insulin given some hours after the first is now less frequently necessary, useful as it may prove on occasion. The use of additional meals late at night is a European habit of longstanding but one somewhat foreign to our custom.

Its introduction to cure or prevent an expected hypoglycemia during the night is a new and unnecessary complication in the routine of the diabetic's life which all will agree should be simplified as much as is practicable. It has been our experience that with a little more prolonged study of the individual patient and his reaction to diet and insulin combinations it is possible to avoid the introduction of this device. In a patient with low tolerance when the use of the two insulins before breakfast is to be avoided and the single dose of protamine zinc insulin is to be applied, possibly the most effective means of attaining success is, first, use a diet comparatively low in carbohydrate, next, give such a dose (about 1½ hours before breakfast) as will insure a low normal fasting blood sugar on the following day, then arrange the diet so that the least portion of the carbohydrate is in the breakfast and the

be regarded as equivalent to pushing the patients back into an earlier stage of diabetes since in the earlier or less severe phases only the ability to control postprandial hyperglycemia and glycosuria is lost. Too large a dose tends to produce an excessively low blood sugar during the night. The greater prolongation of ac-

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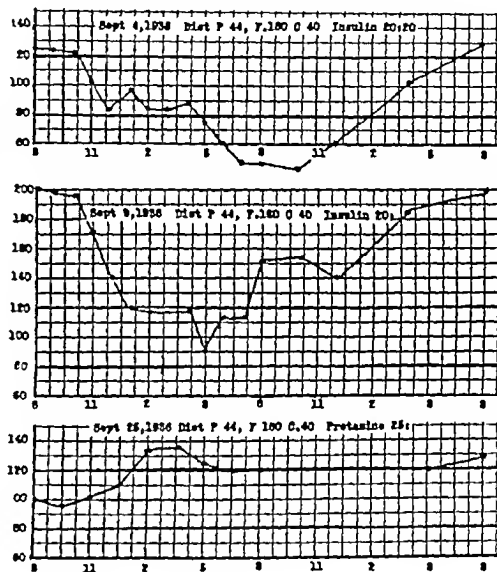
Discussion

For the sake of clarity in the charts accompanying the case reports, the limits of the normal blood sugar levels, 80 to 120 mg per 100 c c of blood, have been emphasized. While temporary fluctuations of some considerable size due to excitement, pain, fear or other emotional causes may sometimes occur in the sugar content of normal blood, the most frequent variation from the normal band occurs following the meals during carbohydrate absorption. It may be entirely absent and seldom exceeds 140. Much less frequently, and usually following late after excessive carbohydrate ingestion, the blood sugar falls to hypoglycemic levels. The relative constancy of the normal twenty-four hour blood sugar curve may be used as one of the criteria for determining the effectiveness of a treatment in a case of diabetes mellitus. By this measuring stick, that is restoration of the diabetic to the normal physiological limits, it must be acknowledged

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Apart from infectious, acidosis arises from two sources—the use of too little insulin and an unsuitable ratio of body fuels. To detect acidosis is easy, it is much harder to remember to look for it and many times as hard to estimate justly its severity. Given sufficient time, protamine zinc insulin will of course control acidosis. Unless one is prepared to risk increase in severity and to neglect additional hours of discomfort, anxiety, and pain for the patient and his friends, it would seem advisable to use a more rapidly acting insulin.

Diabetic coma is an emergency and should be treated as such. Death from diabetic coma today comes most often from neglect to treat the patient early enough or vigorously enough, not from the metabolic disturbance itself, which can be abolished, but from circulatory failure caused by prolonged exposure to the metabolic disturbance. A slow-acting insulin is not absorbed sufficiently rapidly and does not begin to act before the patient should be well on the way to recovery if unmodified insulin were used in sufficient dosage. It is true that it will act if you can afford to wait, but this is a therapeutic *tour de force*. However, Wilder's suggestion that it be used as an adjuvant to regular insulin in such cases is a good means of smoothing out the irregularities in administration and action of the regular insulin. I must confess, though, that at present I pin more faith on early treatment with massive doses of regular insulin.

Though these situations can hardly be regarded as contraindications to the use of protamine zinc insulin, it would appear that it is less valuable than the unmodified product under these circumstances. Of true contraindications in diabetes mellitus there are none. In our first fifty cases we encountered no instances of generalized hypersensitiveness. Recently though, we have encountered two patients with rather severe local reactions which gradually subsided under continued treatment.

Hypoglycemia

Particular care should be taken to impress on patients that hypoglycemia is dangerous. It is true that in the stabilized patient, reactions are less frequent than

with unmodified insulin, but they may be severe and may return after temporary cure owing to the fact that insulin undissolved at the time of the initial symptoms is gradually released into the blood stream. Whether it is because the increased blood flow of exercise washes increased amounts of the hormone into the blood stream or not, is as yet unknown, but there appears to be a definite tendency for attacks to occur following, sometimes by several hours, unaccustomed exertion. For this reason it is desirable that the final suitable dose of protamine insulin should be fitted to the patient under conditions approximating his ordinary routine of living. The dose required at rest in a hospital is not that required on an ordinary business day. The liability to hypoglycemia increases as the day wears on, and sometimes occurs late at night. The business men's gym class and overindulgence in dancing have been responsible at times for unexpected reactions. Swimming races and other forms of strenuous sports should be avoided.

The blood sugar is normally maintained within a narrow band by a balance between the insulin release and adrenal release. This homeostasis is upset by an excess of unmodified insulin acting rapidly and the attempt at correction produces symptoms strikingly like those produced by a dose of adrenalin. Flushing or pallor, tremulousness, palpitation, tachycardia, pounding of the superficial arteries, sweating, loss of judgment, and anxiety or fear are symptoms common to both. They attract early attention and prompt relief is obtained by administration of a soluble, rapidly assimilable carbohydrate. It is known, however, that frequently hypoglycemic levels are attained without production of the usual early symptoms. These latter reactions more closely resemble those encountered when the compound insulins are being used. Rapidity of fall of the blood sugar, which excites the compensatory mechanism, is absent and the early symptoms of hypoglycemia are present only in mild form, if at all. Great fatigue, a desire to sleep, a fullness in the head, thick-wittedness, repetitiousness, contrariness, argumentativeness, loss of suavity or politeness, or even the exaggerated correction of these

greatest in the evening meal—and lastly, delay the evening meal

It should not be assumed that an accurate adjustment of a patient's dose of protamine insulin to one set of conditions will necessarily be suitable when those conditions are altered. While there is a considerable safe margin, gross changes in the proportions of rest and exercise or alteration in the time and composition of the various meals even though the total day's allowance of food remains the same, may cause either glycosuria or reaction. The margin of safety becomes smaller the higher the carbohydrate content of the diet or the harder the physical work performed, provided, of course, that these latter factors have not already been taken into consideration.

Economy of Insulin

The economical use of insulin is of some importance to the patient who must pay for it. The results vary with the carbohydrate level of the diet used, although this is apparently not the sole factor. Possibly total caloric intake may play a role, as with high carbohydrate undernutrition diets, this is less in evidence. With high carbohydrate high calory diets some economy may be demonstrated. With adequate maintenance diets, low in carbohydrate, an average saving of forty per cent of the former requirement of unmodified insulin is found. The change over from one to the other may be made on this basis always remembering to use sixty per cent (of the former requirement) of the unmodified insulin on the first day and thirty per cent on the second day along with the protamine zinc insulin to prevent a glycosuria appearing before the slow acting insulin has time to be absorbed. Subsequently when changes in the dose of protamine zinc insulin are required seldom is a change of less than five units productive of the desired result.

Infections, Acidosis, and Coma

It has been noted that protamine zinc insulin acts very slowly. This would seem to limit its usefulness to such conditions as do not require large amounts of insulin in the circulation at one time. It has been well-shown that during in-

fections the effectiveness of unmodified insulin is materially reduced. It is our impression that the general health of patients receiving protamine zinc insulin is materially improved and that infections are less frequent among them. It is very evident, however, that, once an infection has been acquired, the patient is much less effectively protected against acidosis than with unmodified insulin. Patients receiving the compound insulin should be warned to report to their physician on acquiring even slight infection. Because of its greater effectiveness, unmodified insulin in adequate dosage should be employed in those cases where the infection is severe. Similarly when an operation becomes necessary the rapid action of unmodified insulin contributes to its superior efficiency. Hypoglycemia is of course never encountered if the dose is suitably buffered by carbohydrate. The short duration of action of unmodified insulin tends to leave the night hours unprovided with the essentials for complete combustion of foods. Much of the carbohydrate has already been burned, the insulin effect is over, leaving a defective balance of the fuels, largely protein and fat, burning at this time. In consequence, ketonemia and ketosis may occur in the early morning hours. In the more severe cases of diabetes early morning nausea may be experienced unless provision is made for additional doses of insulin during the night. Mild acidosis may even result. The delay in the complete absorption of the protamine zinc insulin is effective in controlling such a ketosis, since not only is there insulin available during these hours, but a larger amount of carbohydrate may be placed in the evening meal for combustion during the night. For many patients a vague and indefinite awareness that they are not feeling quite well* is abolished by relief from "morning ketonemia."

* Wilder has recently suggested (*Annals Internal Medicine*, p. 13, July 1937) that the improvement in the sense of well being in patients taking protamine insulin is due to the prevention, by the combined insulin of intermittent periods of azoturia resultant on protein breakdown. This action he has beautifully demonstrated. There is as I read his article, no difference of opinion between us. He is there concerned more with the increased sense of strength and "fitness" over considerable periods of time, which undoubtedly results from the use of combined insulin, whereas the paragraph above is concerned with relief from a feeling of unwellness which gradually disappears during the day when carbohydrate and any type of insulin in sufficient quantities are supplied.

previous total dosage of unmodified insulin may be given in a single dose $\frac{1}{2}$ to $1\frac{1}{2}$ hours before breakfast. On the first day sixty per cent of the former allowance of unmodified insulin given in two equal doses, morning and evening, and thirty per cent given in a single dose on the second morning prevent a glycosuria which otherwise might take a week to clear. Still remembering its slow action, little reliance should be placed in blood sugar levels until a week of treatment with the new insulin has been completed. Glycosuria may likewise be an unsatisfactory guide at this time, although it may be said that glycosuria before breakfast or a fasting blood sugar of 0.140% indicates insufficient insulin or an unsatisfactory arrangement of the carbohydrate in the diet, postprandial glycosuria

coupled with hypoglycemia after midnight may have a similar meaning or may indicate the desirability of using a dose of regular insulin in the morning along with somewhat less protamine zinc insulin.

Freedom from glycosuria with hypoglycemia in the afternoon, evening or early morning hours indicates that excessive quantities of protamine zinc insulin are being used. But again, too hasty conclusions on these points are not advisable since they may rest on false premises. Insufficient observation of the patient and his reaction to diet and the insulins accounts for most of the unsatisfactory results in the treatment of diabetes with protamine zinc insulin.

MEDICAL ARTS BLDG

Discussion

DR. WILLIAM A. GROAT, *Syracuse*—In this matter of the improvement in the effects of regular insulin by combining it in some manner with a protamine, to have the value of the experience of the Toronto group following the original work of Hagedorn, is extremely valuable to all of us. While I realize that my experiences may be of little interest to you, they have been interesting to me and are the ones I know the most about.

Following the work of Hagedorn there was made available for clinical experimentation in this country nearly two years ago through the Eli Lilly Company a protamine insulin combination or mixture to be prepared extemporaneously. In starting out with something still in the experimental stage one must have a plan, a protocol, a basis on which to work. We postulated first that in order to be useful this new thing must be acceptable to patients, it must be within their comprehension and their ability to handle themselves, it must confer upon them distinct benefits. No matter how useful it might seem to be in the laboratory or in controlled experiments, unless it conferred the benefits upon the patient of reasonable ability and good training, it would not have much clinical value. We, therefore, started out with a group of ten patients selected on the basis of their training and experience as diabetics over a period of years with a demonstrated ability to show good results with such methods as were put at their disposal. We found that these were able to mix their own protamine insulin compound, the product at that time coming in two parts

—a protamine solution and an insulin solution—to preserve it properly, use it correctly and prolong the action and smooth the insulin effects. We rejected the plans of Hagedorn and others for giving two different kinds of insulin, either at different times of the day or at the same time of day, as not being practical and suitable for use by the average patient.

The next improvement was the combining of very small amounts of calcium or zinc with the protamine solution used for making the mixture extemporaneously. Our group of patients found a further prolongation and smoothing of the action of the protamine insulin mixture. We found little if any difference in our limited experience between the calcium and the zinc mixtures but in the consolidated experience it developed that the zinc mixture did work somewhat longer and smoother and, as Dr. Campbell has explained, there are good reasons why this should be so.

The next step was the ready mixed protamine zinc insulin and again our patients adapted themselves to it with considerable ease and found it more practical. Our results with this group continue good and with a still further experimental product it continues good although I question whether there is any particular advantage in this latest mixture, which Dr. Campbell has not referred to and which I will therefore say no more about.

The advantages to the patient are, speaking now of the protamine zinc insulin, a prolongation of the action for a period of over twenty-four hours, sometimes even

faults, in short, signs of waning cerebral control, are more frequently seen. Headache and slight nausea, even vomiting (prone to be attributed to "car sickness" if driving in a motor) are sometimes accompaniments. Convulsions or unconsciousness possibly terminating in death may result from prolonged lack of treatment. Patients receiving protamine insulin should carry glucose candies at all times, and should never attempt to "fight off" reactions. They should eat a candy each thirty minutes until some starchy food can be obtained. Bread and corn syrup or bread and honey are useful combinations for their immediate antidotal effect and for warding off a subsequent return of symptoms. When more seriously incapacitated an intravenous injection of glucose may be necessary.

More General Effects

The general health and the feeling of physical fitness of the patients has been improved by the use of protamine insulin in comparison with their condition on regular insulin. The more severe diabetics who tended to develop ketosis immediately previous to their next dose of insulin with a feeling of malaise or even of nausea, have remarked on their increased well-being. Infections are less frequently encountered. To the patient himself, apart from his increased sense of fitness and well-being, there is nothing of greater importance than the feeling of relief from numerous injections. It is not relief from the physical discomfort of the injections that pleases him so much as the sense of freedom from the continuous necessity for planning his life around a routine of meals and injections at specified times. "I get up in the morning, shave and take my insulin, then wander down to breakfast. That chore is done, and I feel free for the rest of the day," said one patient.

The progress of these patients after leaving hospital is of great interest. While it is true that an improvement of tolerance did take place in some of our patients receiving unmodified insulin, we have been glad to find that, as time passed, many of the patients taking protamine insulin required smaller and smaller doses, several patients whom we

could not maintain sugar free without a combination of both regular and protamine have gradually accommodated themselves in some unknown way and are now able to dispense with the unmodified insulin. Not all cases show this improvement however, and it has been impossible to predict with any certainty which patients will improve in this manner. It is usually a slow process extending over months, possibly over years. It will be of great interest in this connection to observe whether or not patients not absolutely requiring insulin gain tolerance by continued administration of small doses of protamine zinc insulin over a considerable period of time.

The fact that intense hunger is seldom a symptom of protamine insulin hypoglycemia does not augur well for its success in relieving obstinate anorexia. With regard to improving the nutritional state of emaciated patients it will be remembered that carbohydrate is burned by preference when sufficient insulin is available and that its protein sparing action was demonstrated in some of the earliest work on insulin. Combinations of unmodified insulin to induce hunger with protamine zinc insulin to "spare" protein throughout the twenty-four hours may possibly prove more effective than the use of unmodified insulin alone.

Application to Patients Now Receiving Unmodified Insulin

From the previous discussion it would appear desirable to treat all patients requiring insulin for daily use with a compound variety because of the reduction in the number of doses per day, the economy of insulin effected the improvement in the blood sugar levels, the superior control of ketonemia throughout the twenty-four hours, and the improvement in general health of the patients. The patient already established on regular insulin has considerable to gain by changing to the new variety. The level of carbohydrate in the patient's diet supplies some guide as to what reduction in units of insulin may be expected. For the higher carbohydrate diets there is often little economy. When the carbohydrate content of the diet falls below 100 gm per day, protamine zinc insulin equal to sixty per cent of the

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protamine zinc insulin from day to day to obtain any very consistent results. It is our opinion, after making these studies, that it is better to calculate the dose of protamine zinc insulin corresponding to the dose of the regular insulin that the patient has been taking, and give it as one dose in the morning, providing it does not exceed forty units, and continue this treatment for about a week or ten days. If the total insulin requirement exceeds forty units, it is then advisable to give an additional dose of the regular insulin along with the forty units of the protamine zinc insulin. These two doses are given separately, and in different locations, but at the same time. It is our observation that after one or two weeks, it may be possible to reduce or omit the regular insulin, and in some instances, reduce the dose of the protamine zinc insulin after two or three months.

This has led us to believe that due to the effect of the protamine zinc insulin over a period of months, the diabetic patient shows a tendency to improve in carbohydrate tolerance. It is true that patients who are difficult to regulate and control with the regular insulin are going to be difficult to regulate and control with the protamine zinc insulin. This is particularly true of patients who are subject to insulin reactions. Too much should not be expected of the new insulin, but one should not despair of its use because striking results are not obtained in the first few doses. Frequently patients appear to show loss of tolerance, and are annoyed at the appearance of sugar in the urine and elevation of the blood sugar. After persistence, however, these signs disappear, and the patient is most grateful because of the simplicity of his treatment and the improvement in his general well-being.

DR. HARRY G. JACOBI, *New York City*—When regular insulin was first made available to the profession, the results of its use in diabetes was so striking that very little question arose at the time regarding its indications or contraindications. With the increased improvement and refinement of the preparation, a more rapid action was noticed. This rapidity of action has sometimes been a distinct problem, especially where a more sustained lowering of the blood sugar was desired. In these cases it was found that a certain amount of the insulin was actually wasted because of the rapid action. We have all felt that if insulin could be so modified to insure a slow and uniform rate of absorption, such action would closely simulate the insulin production of the normal pancreas, and thereby eliminate this waste. Various attempts have been made to accom-

plish this result by combining such substances as cholesterol, protamine, calcium, etc. with the insulin. The most practical combination thus far evolved seems to be the protamine zinc insulin. In discussing the various observations reported by different investigators, one notices a certain confusion and disagreement regarding the results obtained. On careful examination of these observations, one notices that unfortunately observations were reported on three distinct preparations, each one of which has a different time reaction. Thus for example, the original investigators reported their results with ordinary protamine insulinate. Later, calcium was added, and a series of reports were made with the protamine calcium insulin. Finally the zinc was substituted for the calcium, giving rise to the present protamine zinc insulin.

The failure to recognize this difference in action of the various preparations can only lead to greater confusion.

The very fact that protamine zinc insulin is absorbed slowly, excludes its use where rapid insulin action is desired. If for example, one expects protamine zinc insulin to effect a raise in the blood sugar, following a meal, one will be disappointed. The planning with the use of protamine zinc insulin is a long-ranged one, where balance is not expected for at least three to four days. During this trial period a certain amount of glycosuria is inevitable and attempts made to eliminate it by giving large doses of protamine zinc insulin or more frequent injection will soon result in hypoglycemia. I think that where immediate action is desired, or becomes necessary as in such diabetic conditions as acidosis, coma, infection or gangrene, regular insulin should be employed. Recently, however, Wilder has reported the effectiveness in using protamine zinc insulin in diabetic ketosis where the long range action of protamine zinc insulin is modified by the more frequent injection of regular insulin with very excellent results, and with a marked diminution in the amount of required total insulin.

Naturally if the error is made of giving protamine zinc insulin at too frequent intervals, or too large doses in an effort to rapidly reduce the blood sugar in a patient with severe or moderately severe diabetes, a condition of prolonged hypoglycemia may result which may cause a fatal outcome, especially in advanced heart disease.

From our experience, we cannot help but feel the following distinct advantages that the use of protamine zinc insulin has over that of the regular insulin.

- 1 It is especially effective in the so-called insulin wasters.

thirty-six or more. This results almost universally in reduction of the number of doses of insulin to one daily. We have found protamine zinc insulin particularly useful in that group of middle aged adults requiring from forty to fifty units daily, which dose may be taken before breakfast as a single injection. We then find that the rearrangement of the diet on what we call a 1-2-3-4 plan works well as a general layout. Dividing the carbohydrate as such into ten portions, one portion is given as a light evening supper about 10 P M, two portions at breakfast, three at lunch, and four at dinner. For example, believing that about 200 gm of carbohydrate as such is best for the average adult diabetic, the division would be twenty gm at 10 P M supper, forty at breakfast, sixty at lunch, and eighty at dinner. This feeds well from the dieticians' standpoint, gives a light breakfast which modern Americans usually would choose to have, a suitable lunch portion, a good dinner arrangement, and an evening meal which fits into the social amities of most of us. Furthermore, it meets the peak of the insulin effect with the maximum amount of carbohydrate. Rearrangements should be made to suit individual conditions and to the individual responses to the protamine insulin mixture causing variabilities in the duration of its action.

We believe one of the most persistent errors in the dietetics of diabetes is the failure to realize that a definite amount of carbohydrate from some source is necessary to a properly balanced metabolism and the production of a sufficient number of calories to carry on the ordinary activities. Furthermore we believe the diabetic is entitled to such a diet and mode of living as will permit him to take his place in society, to follow his occupation, to mix with people, and to eat with his own family the sort of food other people eat. There is no longer need for abnormal types of diet for the diabetic. In fact, such abnormalities are in the end detrimental. Anything that makes for his comfort and inconspicuousness adds to his general well-being and prolongs his life. To withhold carbohydrate like a conscientious objector, then feed excessive amounts of protein and fat with the guilty knowledge that the patient will pull the carbohydrate fraction out of some of this other food stuff, throwing away the degraded balance, is begging the question. Protein that serves to supply carbohydrate cannot also serve as protein. If it were better to feed that amount of carbohydrate which must be had that he may have it from the normal, least expensive source—least expensive in food cost, least expensive in metabolic effort—

then he need not take it by wasting his own body unless it has been deemed necessary that he should do so, and only such amounts of protein and fat need be supplied as should be in any ordinary diet. When such a diet is pursued even with the regular insulin, a smoothing and a cushioning effect is obtained. Should the patient temporarily need more carbohydrate, he may obtain it by breaking down the protein or the fat temporarily just like any other individual. Ordinarily, however, he obtains the necessary carbohydrate for fuel purposes from carbohydrate as such.

The combined effect of all these is to give a reasonable diet through the feeding of ordinary foods including all the carbohydrate the ordinary person would choose to take except for the elimination of sweets. With protamine zinc insulin in the morning before breakfast, the exact timing of meals and their burdensomely meticulous apportionment becomes unnecessary, the accommodative powers are increased, and the diabetic closely approaches ordinarily correct living, consuming a dietary any healthy person might accept comfortably and profitably.

DR. WILLIAM WALLACE HALL, *Watertown*—My part in this discussion is to report on the use of protamine zinc insulin in regulating diabetic patients, who are insulin sensitive, that is, those patients who are subject to insulin reactions while using the regular insulin.

Two cases have been carefully studied. The first, a woman forty-seven years of age, who gives a history of diabetes for twelve years, the other a woman of fifty-nine, who has been a diabetic seven years. On several occasions these patients have had severe insulin reactions, especially at night, at times being unconscious. The former was taking twenty units of the regular insulin in the morning, and fourteen units of the regular insulin at night. The latter was taking twenty-eight units of the regular insulin in the morning, five of the regular insulin at noon, and twenty of the regular insulin at night. Blood sugars continued to be found above 250 mg %, when the blood was examined at 11 A M. While in the hospital for this study, the urine was examined every three hours for sugar and acetone, and the blood sugars made at 8 A M, and 4 P M.

The findings in these two cases were quite similar.

The lesson we learned in studying these two cases over a period of ten days, is that the patients tend to run high blood sugars in the late afternoon, and low blood sugars during the night and early morning, and that it is difficult to regulate the dosage of

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Practical Application and Theoretical Considerations

EMERICK FRIEDMAN, M D, M S, Ossining

The interest of the psychiatric world in the Camphor-Metrazol therapy has been mounting steadily since the original work of Meduna.¹ The increasing number of mental hospitals employing this biotherapeutic method of attack on the schizophrenic disease process will attest to the fact that this procedure has become indeed a fascinating and absorbing study. It is the purpose of this paper to present, aside from statistical material,* certain directions for further intensive, cooperative research in neurophysiological and psychological interrelationships. It is felt that as time goes on, there will be brought forth much more data on this score, reinforcing or even reintegrating a correlated approach on the problem physiologically and psychodynamically. In view of reports now in preparation at Stony Lodge, only a skeletal survey is possible in the scope of this presentation.

Since the rendition of the first paper on the subject of the irritative therapy of schizophrenia,² certain interesting, and, it is believed, pertinent data has accumulated. It was brought out at that time, that it is possible to think, theoretically, of schizophrenia as a correlate of a sluggishness of general body metabolism.³ There was also brought out the presumption that in schizophrenia, there might be (again theoretically) a physiological barrier to certain associative pathways, that would tend to become more and more impenetrable as the disease progresses. If, however, a regime were set up that would cause a stimulation—irritation—of the whole central nervous system, these so-

called barriers might be broken up, allowing proper thought processes to emerge and take their place in the carrying on of thought volitional-motor activities.

Through objective observations of therapeutic remissions in cases of schizophrenia, it was noted that those patients who underwent deeper states of delirium, confusion as well as grandmal reactions, best retained their apparently recovered mental status. It was furthermore mentioned previously, that the chief reactions to camphor were delirium and confusion, with but relatively infrequent major convulsive reactions. On the other hand, Metrazol produced active convulsions at the desired intervals, but it usually took some time to develop any degree of delirium—some cases never actually reaching that stage. It was felt, that if the two drugs were combined, both of the objectively desired effects could be produced. Two further points that might be mentioned are

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2 It avoids the necessity of the patient taking a regular dose of insulin at an early hour of the morning as 3 or 4 A M

3 Severe diabetes with marked fluctuations in the blood sugar are more easily steadied by that combination of therapy, because of the fact that the carbohydrates are more completely oxidized than by a similar dose of regular insulin

4 There usually results after a varying period of use, a marked reduction in the total number of insulin units necessary for the control of the diabetic condition together with an increase in the well-being of the patient

5 Surgical wounds as well as infections seem to get along better with the combined form of therapy

AUTOMOBILE INJURIES

To emphasize the need of studying the modern surgical problem of automobile injuries Claire L. Straith, Detroit (*Journal A M A* Sept 18, 1937), points out that during the past year, 38,500 deaths resulted from automobile accidents alone. The total number of nonfatal accidents was 1,340,000, of which 110,000 resulted in permanent disability. Present figures indicate a twenty-eight per cent increase in deaths for the present year. If these figures are compared with those showing the progressive decline, year by year, in mortality and morbidity from diseases and other hazards, the contrast is startling.

What a hue and cry would be raised if typhoid or smallpox were to bring a similar epidemic of death or disability, or even a much lesser one! In its most destructive years, the "white plague" was hardly more devastating.

Despite the physician's best efforts, it must be admitted, unsightly scars will occasionally develop. These should later be carefully excised. The time for secondary plastic procedures is at least two months after healing has taken place. The subcuticular suture is recommended for closure to obtain minimal scar formation. Crushed noses and depressed cheek and frontal bones also require attention. Transplants of rib cartilage may be used to fill in these defects.

Severed noses, especially in males, are distressing deformities. Attempts should be made to reconstruct missing portions. Complete nasal losses provide even more urgent indications for restoration. If a good lining is present or easily provided, Wolfe grafts

may be used to good advantage if the loss is not too extensive. Larger losses can be replaced only by pedicle grafts. The forehead flap method is best suited to women because it provides hairless, well matched skin. The resulting scar on the forehead is readily concealed by the hair-dress. In men, however, the scar on the forehead is almost as obnoxious as the nasal disfigurement itself. Hence a flap formed from the skin just below the ear and overlying the sternocleidomastoid muscle is preferable. This is generally quite free from hair and closely matches the facial integument. The graft is brought to the face via a tube pedicle attached primarily to the region of the sternal notch. From this point it is secondarily attached to the nose.

Many other medical aspects of the problem of motor car accidents need earnest consideration. One of the most pertinent of these concerns the mental and emotional health of the many victims. Above and beyond the physical suffering which they must endure as a result of horrible injuries is the mental agony which lasts throughout life in the presence of facial disfigurements, however slight. Complexes and near psychoses brought about by brooding over facial disfigurements have removed many of these unfortunates from active social and business activities. That their worries are not unfounded, on the whole, is borne out by the fact that employers place a high premium on good appearance in selecting employees who must meet the public.

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to litmus The fluid intake is set at a minimum of two liters per day No sedatives should be given for the period of treatment

B Camphor This phase is kept up from one to three weeks (It will be shown in a subsequent paper that three weeks' time is better) The camphor is administered in the form of the freshly prepared, sterile, twenty-five per cent oily solution Injections are given intramuscularly twice daily The usual technic for antiluetic bismuth therapy is adequate, with the additional skin preparation with tincture of green soap, iodine, and alcohol The dosages are regulated according to the following protocol The initial dose is four gm of the amorphous camphor, and the subsequent doses are increased at the rate of one gm per day, so that each injection per day is increased by 0.5 gm If convulsions occur at any given dose, the injections are omitted the following day, and if the convulsion occurred after the first injection, the second injection is omitted likewise, on that day In this manner, the medication is given at the most, to provoke only one convulsive episode every other day The injections are resumed with the lapse of a day, as directed above, starting, however, with the convulsive dose The maximum dose of camphor is set at fourteen gm twice a day This might be more clearly understood in outline calendar form

COURSE OF INJECTIONS

Day	8:00 A M Dose	Reaction	5:00 P M Dose	Reaction
1	4.0 gm (16 c.c.)		4.0 gm. (16 c.c.)	
2	4.5 gm. (18 c.c.)		4.5 gm. (18 c.c.)	
3	5.0 gm. (20 c.c.)		5.0 gm. (20 c.c.)	
4	5.5 gm. (22 c.c.)	Grandmal	Omitted	
5	Omitted		Omitted	
6	5.5 gm. (22 c.c.)		5.5 gm. (22 c.c.)	
7	6.0 gm. (24 c.c.)		6.0 gm. (24 c.c.)	
8	6.5 gm. (26 c.c.)		6.5 gm. (26 c.c.)	
9	7.0 gm. (28 c.c.)		7.0 gm. (28 c.c.)	Grandmal
10	Omitted		Omitted	
11	7.0 gm. (28 c.c.)		7.0 gm. (28 c.c.)	
12	7.5 gm. (30 c.c.)		7.5 gm. (30 c.c.)	

It may be found that not even a single convulsion will occur throughout the duration of the camphor therapy This is not to be regarded as a source of wonderment because most individuals will rapidly develop a type of tolerance to the drug It is well, however, in these cases, to make a thorough check-up of the alkalinization and the fluid intake It has been found by the writer that if, for example, the fluid intake and the alkali ingestion were brought up to the required amounts, con-

vulsions would ensue within one or two days, whereas previously, there might have been some laxity and these factors were not noted, and convulsions had not occurred Whether or not convulsions occur with camphor, the therapeutic value is still prominent as will be taken up later

C Metrazol Metrazol is employed in a ten per cent aqueous solution and given intravenously once every other day This phase of the therapy may be started within a day or two after the camphor The initial dose is 0.5 gm Subsequent doses are increased at the rate of 0.1 gm each injection, depending upon the occurrence of grandmal or so-called petitmal attacks following injections If a typical, violent convulsion occurs after a given injection, the next injection does not need to be increased It is well to point out again, that a constant check-up of the alkalinization and fluid intake is necessary to produce as many grandmal reactions as possible without too rapidly increasing the dose Another point to be emphasized is that for purposes of standardization of each dose, the Metrazol should be injected as rapidly as possible

A block of therapy may be considered as having been completed when a total of twenty-five to thirty grandmal reactions have been obtained This includes the grandmals that have occurred during the camphor therapy

Although the contraindications were mentioned in the previous paper, it would be well to list them again for the purpose of emphasizing that the procedure may not be conducted without any fear of danger (1) Evidence of cardiovascular disease (2) Acute febrile infections (3) Menstruation (4) Abnormalities of the laboratory findings (5) History of head trauma with subsequent unconsciousness A point that may be brought up in this connection is that if a patient displays unilateral or asymmetrical motor phenomena in the convulsive reactions *per se*, a very careful neurological re-estimation of the patient should be made, in order to rule out the possibility of a neurologic disease

II Rationale and Observations

It is only too apparent that the regime consists of inducing a toxic delirium, punctuated by convulsions It was noted

previously, that in all likelihood, this is not merely "shock therapy," but that a continuous irritation of the central nervous system is brought about, starting even with alkalinization and hydration, and kept up to a relatively high degree with camphor and Metrazol. The analeptic nature of the two drugs has been known for some time, but the therapeutic application of the "epileptic state" in schizophrenia was first employed by Meduna. However, the originator himself has expressed doubt whether or not the actual convulsive reaction is the real agent in producing the remissive changes in the psychosis. With added experience, this point will no doubt, be cleared. It has been found that remissions will occur after a course of camphor, even without a single convulsion of any type, and that remissions will occur after Metrazol without any deliriform manifestations, but these remissions are not as stable as those that have shown both reactions. The concurrence of epilepsy and schizophrenia, although of relative infrequency, has been reported⁴ and since this subject has been presented, many individual workers have informally described their experiences on this matter to the writer. It becomes more evident that the real effectiveness of the therapy does not rest entirely upon the biological antagonism expressed by Meduna, but upon a more subtle and deeper set of factors, for which one will probably have to seek in the neurophysiological, metabolic, and endocrine make-up of the individual, with all of the respective psychocorrelaries. The descriptions which follow will point out certain prominent events occurring during therapy. An appraisal of these will be given later.

1 *The camphor reaction with grandmal.* The patient usually complains of the pain of the injection and subsequent massaging. The pain wears off in about one hour. He looks around, the expression of ecstatic or distant preoccupation soon changes to one of increasing anger or anxiety. Restlessness increases, if the patient is allowed, he will pace up and down the room, or sit down only to jump up at frequent intervals. It is soon sensed both by the physician and the patient that something unusual is going on. If the patient is in mild restraint, he begins gradually to look at the bands and to pick at them. Agitation mounts and then a feverish pulling and twisting are noted. Within

an hour or so, the patient may make a sudden impulsive dash for the window or wall, even attempt to burst through them, head first. He will strike out at the attendants or tug at the restraint, pounding on the bed with his fist and bouncing up and down. Nausea, emesis or retching are frequent, and may be kept up at intervals throughout the time of treatment. The speech undergoes changes from a whining or pleading to a demanding roar of protest, becoming more and more incoherent, bringing out usually a mass of delusional data. Extreme fear is soon portrayed in the facial expression, and this mounts to a visage of terror. The patient may actually remark that he is under diabolical influences. Isolated twitchings of the extremities, facial muscles, or trunk are then noted. These increase in frequency and intensity in the space of a half hour. At times, a tonic element is intermingled with these twitchings, giving a picture of a type of athetosis. Suddenly, the patient appears as though transfixed. His eyes open wide, a more terrified expression than before appears, the mouth is opened wide and at this time, the watchful attendant has an opportunity to place a firm, cotton gag into the mouth between the molar teeth. The skin blanches and then flushes, an inspiratory scream is emitted and at the same time, the extremities are tonically extended, the trunk undergoes a severe sudden tonic spasm, resulting in an opisthotonos or orthotonos.

This, the tonic phase, is so intense that the bed as well as the body vibrates. The clonic phase ensues usually in one-half minute and assumes one or two patterns. The first is that of a so-called "release" type in which the tonus paroxysmally diminishes, allowing partial relaxation, only to appear again. The second type is that of a so-called "discharge" clonus in which there is apparently a sudden change in the two phases and the clonic movements assume patterns of sudden nerve excitations. This phase lasts one-half a minute and subsides either suddenly or gradually. All of the visible muscles of the body seem to be involved in both the tonic and clonic phases. The skin displays prominent goose-flesh through the tonic stage, but becomes lividly cyanosed or assumes a ghastly pale color at the end of the clonic stage. The respiration which has been practically suspended during the above phase, is resumed at the most, within a minute, and invariably begins with a harsh stertor wherein much foaming saliva is expelled. At times there may be a brief period of coughing, also at this time sinus arrhythmia is present and lasts for one or two minutes. The pulse gradually becomes more forceful and regular. The general pic-

ture that the patient presents, is one of thorough exhaustion. He is usually covered with perspiration and is panting for as much as five minutes. During this time, the phase of automatic restlessness begins and is kept up for as much as an hour. The patient slowly begins to lift up his extremities in the flexed position and may assume postures and maneuvers of fetal positions, coitus, and masturbation. Picking movements with the hands in various locations of the body are frequently encountered. Various stroking or "washing" movements are likewise noticed. Gradually, the hands encounter the face and the protruding gag. This is picked at for a short while and then incoordinated attempts are made to pull the gag out of the mouth, keeping the mouth closed, resulting in a peculiar gesture wherein the patient is tugging at the gag with both hands, ripping it with his teeth, and even uttering guttural growls at the same time. Very often, the gag is torn to shreds and the patient will chew at these shreds, actually swallowing them. If the attendant forcibly extricates the gag, the chewing movements will be kept up, the patient mumbling all the while.

Another series of movements that is often encountered, is that of attempts to run while in the supine position, at the same time thrusting out the hands. If the patient's feet encounter the wall, a picture is soon presented of attempting to crawl up the wall, head down. Many similar movements have been observed, all of which are indicative of a type of vertiginous activity. This is further evidenced by nystagmoid movements, rolling of the head and definite ataxia in all attempts to grasp at objects or to touch various parts of the body. Another interesting phenomenon observed in this respect, is that, if the patient were to be called by name at this time, his gaze in response would be turned in an entirely different direction. This phase gradually subsides and the patient will apparently fall asleep for a half to several hours. The status of the reflexes may be outlined at this point:

(a) *Tonic phase* The pupils remain dilated, the corneae are anesthetic, there is a permanent Babinski. Tendon jerks are impossible to elicit.

(b) *Clonic phase* The pupils become more contracted, the corneae are still apparently anesthetic. The Babinski becomes paroxysmally positive with the clonic jerks. Tests of tendon jerks are unreliable. The pupils do not react to light in either of these stages.

(c) *Automatic phase* The pupils show great lability but are reactive. The corneae are rapidly sensitive. All tendon jerks are greatly exaggerated, positive signs of pyramidal tract irritation persist for as long as an hour after the clonic phase. There may be found definite myotatic irritability after the clonic phase, and

this subsides within a few minutes. At the end of the automatic phase, the tendon reflexes are frequently hypoactive, or absent. Upon awakening, the patient is dazed and confused for a length of time. The amnesia may include the entire foregoing treatment procedure. Repeated convulsions occasionally occur with camphor, but these usually begin a few minutes after the clonic phase of the preceding reaction.

2 *The camphor reaction without a grand-mal* The picture of this closely resembles the foregoing. The pattern of mounting anxiety is, however, frequently so severe that at times, it may amount to a real fury. The duration is usually longer. Certain individual and characteristic differences, are noted in that instead of a fury, the patient will undergo an uncontrollable episode of agitated weeping. In all cases, however, there is given the definite impression that the patient is transferring his preoccupations with accessory symptoms to a serious consideration of what is happening to him. Obviously, certain delusional elements of torture by the injection and medication are verbalized.

3 *The Metrazol grand-mal reaction* This reaction is entirely similar to the grand mal reaction under camphor. The process, however, takes place with almost lightning rapidity. The patient is usually given the injection before a meal. He is placed in bed without a pillow. Frequently, if the patient has had several of these injections before, he will begin expressing his fear of the treatment, or else he will be so frightened that he will not be able to talk nor even to perform such simple acts as undressing. He will usually be pale and have almost a cold, clammy skin even before the injection has been started. The administration of the drug usually takes about a second or less for five c c. The patient is almost instantaneously transfixed with terror. There is practically always an aura of olfactory, visual or auditory character. The patient (as found later by personal interview) experiences a suffocating odor and taste of some aromatic substance, "something like chloroform" which makes him cough and snatch at his throat. His head begins to feel light, or else there is a pounding or expanding sensation. Varicolored visual hallucinations of rapidly moving objects and often a torrent of auditory hallucinations rush at him. These features are, of course, colored to a great extent by vertiginous symptoms in which the people in the room, or the patient himself, seem to vibrate, multiply in number or whirl about. The auditory picture changes rapidly to a roaring in the head and the patient loses consciousness at the onset of the tonic phase. The remainder of this picture is very similar to that de-

scribed in the camphor reaction. It is noted that incontinence is more frequent in the grand mal reactions produced by Metrazol as well as ejaculation without erection. Both of these phenomena occur usually at the end of the clonic phase. The automatic phase usually is of shorter duration than that observed under camphor. It is very rare to find repeated convulsions under Metrazol, although they are known to have occurred. Infrequently, there is noted a very severely restless automatic phase accompanied by screaming and attempts at self-mutilation.

4 *Metrazol petit mal reaction.* This reaction, upon superficial observation, may almost be said to consist of an extended *aura*. Immediately upon receiving the injection, the patient undergoes the same premonitory symptoms as described above. He will display tremors, or slight twitchings of the facial muscles—especially the eyelids—and extremities. He may suddenly sit up and wave his arms and hands in front of his face as though in an effort to protect himself. Upon being placed in the reclining position again, repeated attempts to sit up might be encountered. The twitchings and flutterings of the eyelids may continue for an hour. There might be the same subjective sensations as noted above. It is with great difficulty that the patient can be made to express his sensations at this time. If urged to talk, he frequently replies gruffly or beseechingly to be left alone, or to be allowed 'out of this'—giving the impression that he felt as though he were hemmed in or tied down.

A very interesting finding, frequently encountered after the Metrazol petit mal, is one in which the patient will assume almost typical catatonic postures even in spite of the fact that he may not have been at any time catatonic during his illness. These postures may be maintained for several hours. Again during this time, the patient might cry out "get me out of this." In most instances, the patient will be more deeply confused and for a longer period of time than after the grandmal. Most patients display more irritability and greater sulkingness, or even become more aggressive after a petit mal.

It is desirable to emphasize the fact that all sedatives should be excluded during treatment, no matter how violent a picture the patient presents.

III Results and Clinical Course

The following data are compiled from the therapeutic results observed in forty cases admitted to the Neuropsychiatric Service of the Buffalo City Hospital dur-

ing 1936-1937. The first twenty cases were reported in the previous publication. In these cases, follow-up data of longer duration are herewith presented and twenty additional cases reported upon.

In the first twenty cases, illustrated in Table I, the duration of illness ranged from less than one month to over six years. The types of cases as noted were varied. The fifteen cases from the first group which had been designated as "much improved" in the previous publication, to this date, display the following favorable characteristics of what might be called true remissions, good social adjustment, sound financial adjustment, and no evidences of psychosis. The follow-up data in these cases cover at least a period of four months. In seven cases, this follow-up amounts to a period of almost one year. The fate of the five cases which were regarded at the time of the previous paper as either "unimproved" or "but moderately improved," i.e. as regards behavior, shows no particularly remarkable change in reference to our subject. It may be said that the writer has had intimate and social contact with several of the remission cases during this time of follow-up, and a very eager rapport was in evidence.

In the second twenty cases, (Table II) whose duration of illness ranged between less than a month to as high as twenty years, in one case, ten years in another, and whose follow-up covered a period of less than three months, display a maintenance of the ratio of successful treatments. In view of the short time of follow-up, it cannot be stated with certainty what the outcome will be. Taking this into consideration, the results were found to be as follows. Sixteen of the second group of twenty cases, displayed normal behavior, good social and financial adjustment, and no evidence of psychosis. Two cases were entirely unimproved, two cases showed a great improvement in behavior, a reasonable enough social adjustment so as to be permitted to remain at home, but still revealed latent evidences of psychosis. Of the two cases which remained unimproved, one definitely did not have enough treatment in proportion to the duration of his illness, the other had well-recognized psychopathic constitutional traits which had been apparent

TABLE I

Name	Sex & Age Decade	Pre-dominant Type	Duration		Treatment Grams Camphor-G Metrazol-M	Reactions Grand Mol-G Petit Mol-P	Condition at end of Therapy	Condition after 4-12 Months
			Yrs	Mos				
S J	M-2	Par		1	C-97 5	9-G	I	U
M F	F-3	Par	2		C-105	None	U	U
O A	M-3	Cat.		2	C-93 5	3-P	I-C	U
W N	M-2	Cat.		4	C-178	10-G	I-C	R
M L	M-4	Par	3		C-190	None	I C	I
W P	M-3	Simple	2		C-229 25	10-G	I-C	R
S C	M-3	Par	3		C-127 5	10-G	I-C	R
K G	F-3	Cat.		1	C-241 75	17-G	I-C	R
					M-12 5	6-P		
F I	F-4	Par	6		C-345 25	6-G	I-C	R
						1-P		
S A	F-4	Par		6	C-400	None	I-C	R-(R R)
S G	M-3	Cat	1		M-9 6	8-G	I C	R-(R.R)
						3-P		
W C	F-4	Par		1	M-13 6	3-P	I-C	R
						8-G		
Z E	M-3	Simple	1		C-345	4-G	I-C	R
M W	M-3	Cat	1		C-221 5	10-G	I-C	R
						2-P		
S E	M-3	Par		1	M-13 6	9-G	U	U
						5-P		
W F	M-3	Cat	1	6	M-18 9	14-G	I-C	R
						3-P		
H G	M-4	Par		1	M-15 5	9-G	I-C	R
						5-P		
C I	M-4	Par		1	C-5	8-G	I-C	R
					M 8	1-P		
D F	F-3	Par		7	C-140	22 G	I C	I
						3-P		
G W	M-3	Par		2	M-7 5	9-G	I-C	R
						1-P		

Key I—Improved behavior, but still psychotic
 I C—Improved behavior but very confused, bewildered
 or unstable due to medicine U—Condition unchanged

R—Normal behavior, socially and financially adjusted
 adequate effective response, no evidence of psychosis
 RR—Rapid relapse.

TABLE II

Name	Sex & Age Decade	Pre-dominant Type	Duration		Treatment Grams Camphor-C Metrazol-M	Reactions Grand Mol-G Petit Mol-P	Condition at end of Therapy	Condition after 1-3 Months
			Yrs	Mos				
P T	M-4	Par	6		C-60	13-G	I-C	R
W A	F-4	Par	20		M-22 4	10-P		
					C-33 0	30-G	I	I
T D	F-3	Par	4		M-31 6	7-P		
					C-21	10-G	I-C	R
S M	M-3	Par	3		M-817	2-P		
					C-5	14-G	I-C	R
S L	F-3	Cat.		1	M-13 5	4-P		
N A	F-4	Par	3		M-11 3	15-G	I-C	R
					M-13 8	14-G	I-C	R
						5-P		
S L	F-4	Par	5		C-151	12-G	I-C	R
					M-10 5	5-P		
S H	F-3	Cat.		3	C-17	9-G	I-C	R
					M 5 6	2-P		
C D	M-2	Cat.	1		C-17	31-G	I-C	R
					M-28 3	14-P		
P P	F-3	Simple	5		M-12 1	17-G	I-C	R
						1-P		
N L	F-4	Par		1	M-10 9	14-G	I-C	R
S S	M-5	Par	10		M-5 8	9-G	U	U
B L	M-4	Par	8		C-10	13-G	I	I
					M-10 2	4-P		
D J	M-2	Par	3		M-12 5	13-G	U	U
						3-P		
K E	M-3	Par	1	6	M-10	14-G	I-C	R
B M	F 3	Cat.		2	C-81	19-G	I-C	R
					M-16 5	6-P		
				2	C-33	14-G	I-C	R
S S	M-4	Par			M-9 5	1-P		
					M-7 3	9-G	I-C	R
M.A	F-4	Par	2			2-P		
								R (is being treated)
	F-3	Cat.	1	6	C-30	12-G	I-C	R
P T					M-15	6-P		
	F-3	Par		6	M-10 5	13-G	I-C	R
Z.E						3-P		

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throughout his life. Also, it was learned from the state hospital to which he was committed, that no evidence of actual psychosis could be demonstrated.

From the foregoing results in both groups of cases, it was found that thirty-one out of the forty treated cases, showed definitely remissive changes which we must wait upon before calling them true remissions. Of the thirty-one cases, three suffered relapses which in all sincerity, might be attributed to insufficient treatment.

Two brief case reports follow which point out the general clinical events which transpired in the arbitrarily designated two major types of the psychosis.

CASE 1 (The so-called active, agitated or furious type) N A, female, age thirty, Latin descent. For the past three years or more, the patient has had increasing difficulty in adjustment to home and social conditions. During all of this time, she has expressed fears of dying, imminent danger to her family, and diabolic influences. Ideas of reference about visitors and relatives were apparent. Many noisy, excited reactive episodes had occurred in which she was rather aggressive. She was admitted during one of these episodes. In the hospital, her condition was found to be as aforementioned. Reactive agitation, however, was a prominent feature. A diagnosis of the paranoid type, predominantly of the paranoid type. Under irritative therapy within four grand mals, her agitation and reactivity to accessory symptoms ceased. Instead, the patient expressed extreme fear of the injection and on the "free" days, she gradually became interested in what was going on around her, becoming rather attached in a friendly way to the other patients receiving treatment. After ten grand mals, she became less alert and seemed constantly bewildered, upon questioning, her recent memory showed evidences of fragmentation with some attempts at confabulation to fill in the gaps. Here her entire demeanor underwent a transition from activity to stolid confusion. She was released in about six weeks, even though displaying this confusion. Two weeks after her release, she telephoned and maintained a spontaneous, alert, and pleasant conversation. Reliable reports from close relatives reveal that the patient had adjusted herself very nicely at home, was eager for social encounters, planning to go to work, and displayed no evidences of psychosis.

CASE 2 (The so-called sedentary, quiescent, stuporous type) S L, female, twenty

years of age, Teutonic descent. For about three weeks prior to admission, the patient had appeared depressed, had become progressively uncommunicative, undesirable eating and for several days before admission, assumed a mute, negativistic, catatonic posture, refusing all food and drink. She remained in this state for three weeks after admission, and the usual measures for the administration of nourishment and fluids were instituted. With the second grand mal reaction, the patient got up, immediately occupied herself with personal care, and talked to her fellow patients and nurses as though nothing unusual had happened. From that time on, she was very cooperative in ward routine, mingled very well with all the other patients, and frequently begged that we stop the injections because she was not "sick" any more. Between the tenth and fifteenth grand mal reactions, she displayed flagrant signs of memory disturbance and became quiet, almost sedentary in her behavior, although if she were requested to perform a task, she would immediately execute the order. She was released while still confused. Within the next two months, she was seen and her family contacted. The reports and impressions were definite that she was well-adjusted socially, gave no evidence of psychosis, and had obtained work.

Discussion

In the foregoing two cases, the average clinical course is demonstrated. In the quiescent or stuporous variety which includes the sedentary, preoccupied, paranoid patient as well as the catatonic, the first change under therapy is that of awakening and becoming aware of environmental conditions. It has been noted that these changes might be dramatic and be associated with a considerable amount of excitation and aggressiveness. In any event however, after about ten to fifteen grand mals the patient will become dull, confused apathetic and prone to display confabulation or silly witticisms to cover up memory defects which invariably occur with this amount of treatment. In the excited types which include the furious catatonic varieties, the outstanding change at the beginning of treatment is that of pacifying the behavior. During this stage the patients will frequently state that they will "behave themselves" if they do not receive further treatment. A quiet, worried picture is presented. From this point

on, there develops progressive confusion and apathy

IV Theory and Comment

From the foregoing, many ramifications of theory are possible. The only distinct and definite starting point lies in the fact that we are treating the disease entity, schizophrenia, whose etiology and morphology are still enigmatic with a regime which produces profound irritation of the central nervous system. The physical picture brought about by this procedure consists essentially of a toxic delirium, punctuated by convulsions.

Certain phases of this problem may be held as responsible for bringing about remissive changes. It cannot be stated which part of these reactions is the real factor. Certain it is, that much work is laid out for the future. It is known that the drugs employed have their primary action as medullary irritants.⁵ In this way, practically all of the vital centers are stimulated, or irritated.

Suspension of respiration causing deep cyanosis of the entire visible portions of the body may have profound bearing upon the immediately apparent improved clinical picture in many cases. There has been some work on the problem of oxygen status with reference to certain mental states.⁶ From a survey of this data, it is found that not only does diminished oxygen tension of the respired air change the mental picture of a psychotic patient, but also will produce many phenomena in the normal individual that may at times mount to a condition of hallucinations and delusions with disturbances in association. Furthermore, severe anoxemia will produce violent psychomotor excitation. Certain parallelisms may be drawn between the deep cyanosis during therapy and the rapid improvements often observed in schizophrenic patients undergoing anoxemia.

The rapid changes in blood pressure and volume as well as pulse rate, are only too apparent in the entire reaction picture. These changes in the vascular bed and nutritional supply to the brain cells may cause just enough variation in the existing metabolic equilibrium to reverse whatever tendency there existed in the schizophrenic condition. Another fea-

ture that is brought to bear is that of the gross disturbances of vestibular function during the reactions. These, as have been pointed out above, are recognizable from many signs presented subjectively and objectively. The factor of giving violent motion to a stable set of accessory symptoms and the addition of vivid symptoms from neurogenic excitation, must have a profound effect upon the schizophrenic individual.

Many of these sensations are not forgotten, the patient may recall them if he attempts to reorganize his schizophrenic pattern of behavior. The apparent subjective sensations of various stages of dysequilibration brought on by actual neurogenic excitation, may provoke a strong attempt on the part of the organism to reintegrate associatively healthy motor patterns—a neurologic redirection, as it were.

The picture of vegetative nervous system responses presented by the patients undergoing camphor and Metrazol therapy, is distinctly problematic. There is evidence from the clinical description given, that the entire system is stimulated for example, rapid changes of skin color, cutis anserina (goose flesh), profuse sweating, changes in the cardiac rate and blood pressure, stimulation of the entire alimentary tract, bladder incontinence, and ejaculation. How much, and which of these phenomena have any bearing on the remissive changes can only be a matter of conjecture. It is true that vital processes are involved in this, and that when the organism receives stimulation here, the response calls forth every conceivable and available defense mechanism. Perhaps the result assumes the characteristics of an effort of readjustment of the vegetative nervous system (which has been dormant?) to meet actual needs and to protect the organism in reality, whereas previously the needs of the organism had been fulfilled in an autistic state which necessitated no autonomic responses.

The other responses elicited are likewise problematic. The automatic assumption of fetal postures—even associated with infantile speech—the enactment of various movements of coitus, masturbation, and other maneuvers indicative of various lower erotic levels, undoubtedly

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play a significant role. Similarly, the stroking, picking, washing or running movements—often preceded by a brief period of actual rigidity at the very end of the clonic phase—are of importance. There is presented to us a picture of what might be termed decerebration which gradually passes through one developmental level after another and then arrives at consciousness. The reappearance of reflexes parallels this. One would surmise that a type of developmental momentum were going on, and that this would

proceed in the more natural directions of neurophysiologic integration. The intrinsic biochemical changes under therapy were found to be without any special characteristics as far as ordinary laboratory findings were concerned, but this will undergo further investigation. Time and space are not sufficient for a proper estimation of the psychodynamic or psychobiologic correlates of the foregoing events, but these are now prepared and will be brought forth in another presentation.

References

- 1 Meduna, L. V. *Arch Neurol. & Psychiat.*, 35:361, 1936.
- 2 Friedman, E. *Die Konvulsions-therapie der Schizophrenie*, Halle a. S., Carl Marbold, 1937.
- 3 Covered in bibliography in reference 2.
- 4 Notkin, J. *J. Nerv. and Ment. Dis.*, 67:321, 1928.
- 5 Emerson, J. H. *Camphor Poisoning*, Reference Handbook of Medical Sciences, New York, 1928.
- Wood and Co., 8460, 1908.
- W. B. Saunders Co., Sixth Edition, Philadelphia, 1914.
- Internat. de Pharm. et Ther., 42:200, 1932.
- 6 Rosett, J. *Brain*, 47:293, 1924.
- land R. A. *Arch Psychiat.*, No. 145, New York, 1932.
- 7 H. C. Kaufman, M. R., and D. Elseaux, F. *Psychiat. Quarterly*, 6:513, 1932.
- (b) Stevens, A. A. Also found in reference 1.
- (c) Maloney and Tatum, *Arch Gies*.
- (d) McFar.
- (e) Solomon.
- (f) Kraines, S. H.
- (g) Kelman, H.

TRACING SYPHILIS THROUGH COMMON AILMENTS

A Benson Cannon, New York (*Journal A M A*, July 31, 1937), points out that the present study was originally conceived as a part of a larger one dealing with the accomplishments of arsphenamine in the treatment of syphilis of all stages. For this purpose a systematic record was kept of all adult patients admitted to the department of dermatology from the spring of 1935 to the spring of 1937 whose ultimate diagnosis was syphilis.

In the course of this study it became increasingly apparent that a large proportion of the patients so admitted arrived in this department by accident rather than by design, having presented themselves originally for some complaint totally unconnected with syphilis—at least in their own minds and frequently also in the opinion of the admitting physician. The approximately 600 cases of syphilis recorded to date are unselected, then, as regards latency and represented all syphilitic patients who were treated with arsphenamine during any or all of this period. It leaves out of account those who received only intramuscular injections and/or silver arsphenamine. Among these 600 cases there were 300-odd admissions in whom active syphilis was not at first suspected.

Not until commonplace injuries failed to heal after weeks or months of treatment

by ordinary measures were some of these patients discovered to have a positive Wassermann reaction and some a history of a previous infection, overlooked or passed by as irrelevant to the present complaint. The mystery of the slow healing operative wound—even after the extraction of a tooth—is often solved by the simple procedure of taking a blood test.

It was found that a surprisingly large proportion of these patients had presented as their chief complaint some ailment commonly encountered in general practice under the names of gastro-intestinal disorders, chronic disorders of the respiratory tract, urinary symptoms, gynecologic ailments and miscellaneous arthritis, diabetes, hernia, goiter and the like. The present report attempts to describe, in a selected group of cases, the methods by which other causes were eliminated, and the symptoms were traced to a syphilis heretofore either unsuspected or supposedly inactive.

Symptoms which brought patients to the clinic, the diagnostic procedures, including laboratory tests, x-ray examinations and pathologic changes, the evidence for syphilis and the treatment and its results are described by the author in the hope that this approach, by symptoms rather than systems (the usual textbook method), may prove of considerable interest and practical value.

COMBATING SYPHILIS AND GONORRHEA

The New York City Plan

JOHN L. RICE, M D, *New York City*
The Commissioner of Health, New York City

Soon after I took over the duties of Commissioner of Health of New York City, I began to consider the problems of syphilis and gonococcus infections in the huge population committed to my care by Mayor LaGuardia. These diseases have been considered special problems for large cities. Whether or not the prevalence of syphilis is greater in large cities than in smaller towns and rural districts, it cannot be doubted that great centers of population such as Chicago and New York offer exceptional opportunities for a scientific attack on this health problem. If we can devise means successfully to combat syphilis and gonorrhea in New York City, we would, under one plan and one jurisdiction, solve the problem for seven and one-half million people, or more than six per cent of the whole population of the United States.

I would like to mention three special studies which contributed to the development of our program in New York City, studies which helped us to find a sound scientific foundation for a practical program.

Since the construction of a scientific program for combating syphilis in a city as large as New York was in many ways an entirely new undertaking in America, it was our desire to profit by the practical experience of other cities and countries. For this reason, His Honor, Mayor LaGuardia, appointed a commission to study and report on the methods now employed in the Scandinavian countries and Great Britain. I had the honor to serve as chairman of this commission with representatives from the New York City and New York State Medical Societies. The present Surgeon General of the Public Health Service joined the commission and participated in its studies. The commission spent the summer of 1935 in the Scandinavian countries and Great Britain, and returned to the United States very much

impressed with the work which has been done in the countries visited. I regard this study as so important that I would like to give you a brief resume of our findings.

Syphilis has declined markedly since 1920 in each of the four countries studied. In the Scandinavian countries it has become almost a rare disease. In these three countries, with a total population of 13,700,000, health authorities were notified of less than 1,600 cases in 1933. Careful inquiries and corroborative evidence convinced the Commission of the accuracy and relative completeness of the reports.

In Great Britain the recorded prevalence as indicated by clinic admissions is now one-half of that recorded in 1920. In 1920, 42,805 cases were admitted to treatment centers for the first time. In 1934 the total was 20,692. In contrast, the prevalence of gonorrhea continues high and has not declined proportionately.

The essential forms of the Scandinavian plan may be summarized:

- 1 Free and universally available diagnostic and treatment services of high quality.
- 2 Adequate hospital facilities for infectious cases.
- 3 Compulsory treatment for uncooperative cases.
- 4 Thorough epidemiologic work.
- 5 Confidential relationships absolutely maintained.

In Great Britain the plans for combating syphilis and gonorrhea provide for:

- 1 Free and universally available diagnostic and treatment facilities of high quality.
- 2 Complete protection of confidential relationships.

There is in Great Britain no provision for compulsory treatment, no reporting of cases, and little or no epidemiologic work.

It is generally agreed that the splendid results obtained in the Scandinavian countries and Great Britain are due mainly to the provision of treatment

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SYPHILIS AND GONORRHEA

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facilities, and that the spectacular reduction in the prevalence of syphilis has been achieved by the simple process of rendering infectious cases noninfectious.

At my request, in 1935, the American Social Hygiene Association made a survey of New York City to learn, as far as possible, the size and nature of the venereal disease problem, the facilities then existing in the city for dealing with this problem, and to outline a program for combating syphilis and gonorrhea under the conditions known to exist. Among the important findings of the American Social Hygiene Association in this study were the following:

The prevalence of syphilis in New York City was estimated at approximately five per cent of the whole population. There are probably twice as many cases of gonorrhea in New York City. Based on the size of the city and the need for diagnostic consultation, treatment, epidemiological and educational activities, it was estimated that at least \$500,000 per year should be available for combating syphilis and gonorrhea, as compared with \$131,000 which was available in 1934. The experts of the Social Hygiene Association strongly recommended the creation of a separate bureau in the Department of Health and suggested that to this bureau should be assigned all Health Department functions for dealing with syphilis and gonorrhea as public health problems, and to this bureau should be appointed a full-time medical director and adequate subordinate personnel. Finally, the report of the Social Hygiene Association recommended a program which would bring private practitioners as fully as possible into the campaign against syphilis.

Last I would mention a special committee appointed by the Academy of Medicine of New York City to consider the problems of venereal diseases, and to make such recommendations as the committee saw fit. This committee, composed of very distinguished medical men, after careful study made a recommendation of which the principal ones are as follows:

- 1 Popular education
- 2 Availability of ambulatory and bed treatment facilities, especially for infectious cases

- 3 Postgraduate instruction of physicians
- 4 Free diagnostic service.
- 5 Free drugs for physicians
- 6 Adequate reporting of cases
- 7 Case finding and case holding activities for patients of hospitals, clinics, and private physicians
- 8 Special attention to prenatal syphilis

The information and advice presented in these three studies and in certain other surveys, provided the basic facts and a program of action against syphilis and gonorrhea in New York City. In a word, this plan called for (1) widespread popular education, (2) diagnostic facilities where all could reach them, (3) treatment facilities for every infected individual, those who can pay going to private physicians, the poor or indigent being treated at public expense, (4) assistance to private physicians in caring for individuals on the economic border-line between indigency and independence, (5) follow-up for cases that have ceased treatment while still infectious, for finding sources of infection, for persuading families of infected persons to be examined, and instructing patients regarding the prevention of the spread of infection.

On October 1, 1935, I created a new bureau in the Department of Health and placed in charge of it Dr. Walter Clarke, loaned by the American Social Hygiene Association. To this bureau I assigned responsibility for the practical development of activities in this field of public health.

In the nineteen months since starting this bureau, I am able to say that substantial progress has been made. Principles of action have been established, personnel have been assembled and trained, services made available throughout the city, and the cooperation of official and voluntary groups have been obtained.

In 1936 about 67,000 cases of syphilis and about 13,000 cases of gonorrhea were reported to the Department of Health. Weeding out the duplicates we find that about 40,000 of the cases of syphilis were reported for the first time, and of these 27,000 were discovered by the clinics of the Department of Health. It is believed that at least 12,000 fresh infections of syphilis occur each year in New York City, judged on the basis of the total cases coming under medical care.

The first objective of the New York City Department of Health is to aid private physicians in discovering, treating, and controlling syphilis among patients who go to private practitioners. The practical aids which the Department of Health offers may be briefly described as follows:

1 Diagnostic services. The Department of Health laboratory performs serologic tests for syphilis without charge (345,000 specimens tested during 1936). At every one of the sixteen diagnostic centers blood specimens are taken for private physicians on request. Expert darkfield examinations and diagnostic consultations are offered in these centers, the reports being sent directly to the physicians. These diagnostic aids are available for all types of syphilis, and physicians are invited to use this service freely without fear of losing their patients.

2 Treatment services. In order to enable private physicians to care for a larger number of patients having syphilis, especially that large body of individuals who cannot pay the full regular fee, the Department of Health using Social Security funds provides nearsphenamine, bismuth or mercury in amounts sufficient for one year of the treatment in accordance with modern therapeutic methods. These drugs are supplied free upon request without distinction as to the patient's ability to pay the physician a full fee or any fee for his service. This enables private physicians to give medical care to many patients who can pay only a small fee—fees comparable with those charged by many so-called "pay clinics." Because the funds for this purpose are limited, drugs are provided to private practitioners only for the treatment of early syphilis, syphilis in pregnancy, and congenital syphilis. Later it is hoped that the same assistance may be extended to all cases of syphilis found under private medical care. Physicians willing to cooperate with the Department of Health in the diagnosis and treatment of syphilis are asked to report their cases at the time of requesting drugs, if they have not already done so, and supplies are furnished in four allotments—each sufficient for three months of continuous modern treatment. Physicians are utilizing the drugs provided by the Department of Health, and about 180 private physicians per month apply for 2,500 doses of arsphenamine and bismuth for the treatment of private cases.

Upon request, the services of especially selected and trained nurses are available to follow-up lapsed cases reported by physicians, the nurse for the time being work-

ing under the direction of the physician reporting the lapsed case. This is an important feature of the plan, since by sufficiently sustained treatment, syphilis may be rendered permanently noninfectious, and in many cases a clinical cure may be achieved.

3 Epidemiological service. In early syphilis, syphilis in pregnancy, and congenital syphilis, we have our best opportunity for epidemiologic work and many physicians in their daily practice are doing excellent case-finding work with patients of these types. The Department of Health offers its services to aid the physician in finding the source of infection of the patient having early syphilis, syphilis complicating pregnancy or congenital syphilis. For this service a group of specially trained physicians are employed. The Department makes their services available to any physician who wishes the cooperation of the epidemiologist in finding sources of infection and in bringing them under treatment, but in no cases will action be taken without the approval of the physician with whom we are cooperating. Where this plan has been in operation, about twenty-five per cent of the sources of infection have been brought under medical care, through the cooperation of the private physician and the epidemiologist.

4 Educational activities. The New York City Sanitary Code requires that every person found by a physician to have syphilis or gonorrhea shall be given a pamphlet of instruction with regard to his infection and the protection of contacts. The Department of Health furnishes this pamphlet to physicians and clinics. New editions in appropriate foreign languages have been prepared. The Department also cooperates in making postgraduate instruction available to physicians, bringing to their attention the most accepted modern ideas and methods of diagnosis and treatment of syphilis. During April 1937, for example, thirty-six lectures were given to lay and professional audiences, and our motion pictures, stereopticon slides were shown sixteen times. Hundreds of thousands of pamphlets are distributed, and our exhibits are shown to tens of thousands of seekers after information.

5 The Reporting of syphilis. In reporting a case of syphilis or gonorrhea or other communicable diseases to the Department of Health, a physician renders a valuable public service. The least that the Department of Health can do, it seems to me, is to make reporting convenient and free even of the cost of postage. A plan to that effect has been placed in operation in New York City. Reporting by initials and ad-

dress is permissible but not encouraged and I wish to emphasize that all reports are strictly confidential, and are kept under lock at the Department of Health

The forty-eight clinics of voluntary hospitals in New York City should play a more important part in the fight against syphilis. Many of these clinics would be willing and able to provide treatment without charge for a larger number of poverty stricken patients if drugs were supplied by the Department of Health. To clinics which charge only low fees—fees that cannot possibly compete with those of private physicians, the Department of Health now provides drugs to enable them to care for indigent luetic patients. During the month of April twelve hospitals received drugs for the free treatment of 540 patients. The total number of doses provided to these hospitals was 2680. In this manner, facilities are increased and brought closer to those who need them.

The Sanitary Code regulates the conduct of these clinics and requires the maintenance of certain standards including adequate personnel for the follow-up of cases. After clinics have exhausted their resources in endeavoring to return lapsed infectious cases to treatment or to bring sources of infection under control, the Department of Health now employs its legal authority to seek out such uncooperative individuals and bring them under medical care. This interesting and permanent feature of the work of the Bureau of Social Hygiene has received emphasis during the past year, thus in the first quarter of 1936, 114 lapsed cases, sources of infection, and other individuals requiring follow-up were referred to the Bureau by the hospitals, clinics, and private physicians. In the first quarter of 1937, the total number of individuals referred to the Bureau from the same sources was 3406, an increase of almost 2980% over the corresponding period last year. These cases are given very special attention by the social workers, nurses, and physicians of the Bureau of Social Hygiene.

The provision of treatment for syphilis in indigents and others who cannot pay, whether this treatment be ambulatory or inpatient, is primarily the function of the various tax supported hospitals of the

city. In spite of the best efforts of the Department of Hospitals and although progress has been made in 1936, the facilities are still very far short of the needs of the city, especially in respect to bed accommodations. The greatest single need in New York City, it is believed, is more bed accommodations for infectious cases of syphilis and gonorrhea whether they be voluntary admissions or legal removals by the order of the Health Department. In the New York City fight against syphilis, scarcely any more important development has occurred than the provision of funds for the payment of physicians rendering medical services in the syphilis and gonorrhea clinics of the city's hospitals. This will result, it is believed, in much more and much better service for the infected poor.

The relation of the health authority to the City Hospital clinics is defined by the provisions of the state law and of the Sanitary Code. They provide for the follow-up by the Department of Health of lapsed infectious cases and sources of infection and give the Department power to require examination and treatment if indicated. Certain City hospitals receive and give medical care to infectious cases of syphilis and gonorrhea removed to them by the authority of the Health Department. Neither the private physician nor the hospital whether voluntary or official has the authority to detain forcibly a case of infectious syphilis or gonorrhea. But by bringing such a case to the attention of the Department of Health appropriate action can be and is promptly taken for the full protection of the public health, and such cases are received by a city hospital designated by the Board of Health. More use should be made of this authority vested in the Department of Health, but more bed accommodations are needed before the laws can be used to the fullest extent for these quarantine procedures.

The Department of Health has primarily the duty of promoting, directing, and aiding the attack on syphilis as a communicable disease. As a matter of sound policy it may work through other agencies both official and voluntary to gain its ends. It must supply deficiencies. Thus for the present it is obliged to supply a part of the treatment facilities for

the very poor and it now maintains ten treatment centers, all of which are crowded to capacity with the unemployed and other very poor infected persons. Still more treatment facilities are badly needed, though it is hoped that the larger participation of private physicians, voluntary hospitals, and the increased service of the Department of Hospitals will partly meet this need. When the Department of Health can properly close its treatment clinics, it will do so, believing that treatment of poor patients can eventually best be administered by hospitals.

A few figures are necessary in order to indicate the growth of our control activities and the reaction of the public to our efforts. In 1933 the Health Department was spending about \$119,000 for all its work in combating syphilis and gonorrhea. This was limited to the operation of several clinics. In 1937 our city budget provides \$275,000 for combating syphilis and gonorrhea. In addition, we have for 1937, about \$70,000 Social Security Act money and about \$204,000 in personnel and supplies allocated by the WPA. About \$12,000 is available from private funds. This total of over \$500,-

000 is being expended on a well-rounded, complete plan of attack on syphilis and gonorrhea. In 1933 we administered 122,000 treatments in seven centers. In 1936 treatment numbered 328,000 in sixteen centers. Comparing the first quarter of 1937 with the first quarter of 1935, that is, before the bureau was organized, we find that in the first quarter of 1937, eighty-two per cent more persons were examined, forty-seven per cent more persons were treated for syphilis, 321 per cent more patients were treated for gonorrhea, and 126 per cent more visits were made for treatment. The personnel assigned to this work, including doctors, nurses, social workers, and others increased from eighty-six in 1935 to 289 at the present time.

The response of the public to our efforts in New York City has been most encouraging. This feature of the Health Department's program has been thoroughly presented to the public and has received enthusiastic public support. The medical profession has cooperated willingly and has undoubtedly shared the benefits of the program.

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FRANCE'S 'SECRETARY OF LEISURE'

We have a Secretary of Labor, why not a Secretary of Leisure? In France the 40-hour week law has given the worker an extra day of rest and recreation, so the government has created an Assistant Secretary of Sports and Leisure. We are told by the Paris correspondent of the *Journal of the AMA* that the first occupant of this office is an energetic young man, Mr. Leo Lagrange, who has announced his program in one of the Paris evening journals, the *Soir*. He stated that it was his ambition to do all in his power to encourage the creation of a strong, healthy and happy people by having them spend two days a week in the open air. A branch of the central bureau will be formed in each of the eighty-six departments of France to encourage the development of physical education. Mountain climbing and skiing enthusiasts will find shelters in every one of their favorite regions. A large park for all kinds of sports is being planned now, within an hour's ride from Paris, at Montlhéry. Similar recreation parks will be created

within a radius of thirty miles from Paris in all of the metropolitan areas. The problem of building special paths for cyclists, as now exist in Belgium, will not be an easy one in France, where there are more than ten million people who prefer bicycle riding to any other form of outdoor exercise. Mr. Lagrange is also thinking of the season when inclement weather interferes with all outdoor sports except skating and sking. He is planning to encourage workers to utilize their extra day of leisure (Saturday or Monday) to visit the museums or the cinemas and to plan to take their annual vacations (with full pay) in winter instead of in summer. Special excursion rates will be arranged so that the worker will benefit by visiting other parts of France and also foreign countries. More than 500,000 persons engaged in sking and other mountain sports during the past winter. The program to encourage the intellectual and physical condition of the workers is an ambitious one and it will be interesting to watch such a policy

PNEUMONIA

From the Standpoint of Preventive Medicine

JOHN H. MEHRLING, M D, *Brooklyn*

The pneumonias should be considered as a closely related group of acute, constitutional diseases, all having in common as a local manifestation, an acute, inflammatory process in the lungs, although the pathogenic causative factors may be multiple.

Pneumonia is an endemic disease practically everywhere in the world, people in temperate and tropical climates suffering at all times from it, although not in all countries to the same degree. The virulence of the endemic pneumonia is not the same in all countries, nor in all parts of the same country. It varies from year to year. Pneumonia is a seasonal disease and the morbidity increases in the cold or wet seasons. It has also been found that it is more common and claims about a fifty per cent higher mortality in urban than in rural sections. Hippocrates is credited with pointing out the experience that cold northerly winds seemed to be a cause of disorders of the chest.²

The contagiousness of pneumonia was noted as early as 1497 by Savonarola, and in 1592 an English physician, Dunns, commented on the fact that he observed that it attacked many members in the same family.

Records of epidemics of pneumonia have been handed down from ancient times, being mentioned as early as 1613 by Ravicio. In our own country many epidemics of pneumonia are recorded. Perhaps the earliest of these was one in Waterbury, Conn., in 1712 followed in 1719-20 by another in Hartford, Conn. Pneumonia ranked high as a cause of morbidity during the World War afflicting some 13,393 soldiers in the American cantonments during the winter of 1917-18. It carried with it a mortality of twenty-three per cent.

In the United States pneumonia has ranked chief among the infectious diseases as a cause of death for many years. From a public health point of view it makes no difference whether the pneu-

monia be due to pneumococcus, streptococcus or any other pathogenic micro-organism, for in all cases the organisms are continually thrown out by the patient chiefly by cough, sneezing, and expectoration. When they reach the body of any well person, either by direct or indirect contact they are potentially capable of and frequently do cause that individual to develop pneumonia. Pneumonia should, therefore, be considered a communicable disease and classified with the infectious fevers.

Despite the gaps that may exist in our knowledge of the environmental, personal, and climatic factors in pneumonia, the data on hand warrant one definite step in the control of this group of diseases— isolation of the patient and a modified quarantine of the premises. While quarantine alone cannot be expected to eradicate pneumonia (any more than it can any of the other infectious diseases) it is of great value in decreasing the spread of the disease by contact infection. This measure would have a secondary effect of great benefit in arousing the interest of the general public and of the medical profession regarding the subject of pneumonia prevention. Finally it would encourage earnest, scientific research into the unknown factors of the problem. It is only when a given community knows the number, time, and place of its pneumonia cases that it is likely to be in a proper position to study the subject advantageously. Unless pneumonia is both reportable and quarantinable in that community, it is not likely to have such necessary information.

This proposal is not just a theoretical consideration. It has been worked out satisfactorily in Pittsburgh, Pa. The regulation covering reports of cases of pneumonia was made to include all forms (to avoid any loophole for failure to report any case). Actual quarantine in certain types of cases was made optional with the Department of Public Health.

From the Department of Internal Medicine, Long Island College Hospital

The quarantine regulations were made very moderate. It consists of placarding, isolation of the patient, prohibition of all visitors, but no restriction on other members of the household. Complete sanitary cleaning of the premises is added, as an appended regulation, before release is granted.

This plan has met with the enthusiastic support of the general public, medical profession, and hospitals of the city of Pittsburgh. It has yielded substantial reductions in the pneumonia death rate, a reduction of 245 in the number of deaths from pneumonia being recorded the first year the plan was in operation.

The problem of pneumonia resolves itself into two phases: (a) the medical aspect and (b) the engineering problem. In regard to some of the medical problems in pneumonia, such variables as exposure, excesses, fatigue, overwork, and lowered bodily resistance have been mentioned as playing an etiological role in this disease. Just what the mechanism is and how it can be counteracted constitute pertinent parts of the medical problem. From the engineering standpoint we may mention such conditions as bad housing, badly ventilated and crowded rooms, overheated living quarters with improper humidity as factors in the production of pneumonia.

It will be noted if one studies the past personal history of many pneumonia patients that a large percentage will reveal a history of a preceding common cold, "flu" or grip just prior to the onset of the pneumonia. Furthermore, climate ranks high in the contributing causes to respiratory diseases. It is not so much the general mean temperature or moisture rate but the relatively quick changes in the temperature that matter. Alternating cold rains and sunshine, snow and sleet, dry cold quickly changing to moderate temperature with slushy, wet streets are widely considered as predisposing factors in the production of common colds and thus secondarily of pneumonia.

There are many unsuspected factors that enter into the spread of pneumonia. These can only be hinted at. They include exclusion of beneficial bactericidal sun-rays through fogs, smoke, air pollution, climatic data, etc. Another factor

of great importance too easily overlooked is the common practice of handshaking. This was considered a sign of security centuries ago, proving there was no weapon concealed; today the extension of the right hand frequently spells sickness and death through a mutual exchange of saliva with its ever-present luxuriant flora of pathogenic bacteria. It has been well said "if saliva were colored blue, we would all have blue fingers continuously."

Statistical study of lobar pneumonia morbidity has proven unsatisfactory chiefly because the report of morbidity required the attending physician to sign his name to a statement regarding the positive differential diagnosis of the case as between lobar and bronchopneumonia, a diagnosis that is often difficult to establish. This encouraged delay awaiting developments and all too frequently failure to report the case morbidity at all. Likewise pneumonia mortality statistics are unreliable, many deaths being charged to this disease that were basically due to other syndromes.

The most satisfactory advance in our knowledge of lobar pneumonia has come in recent years with the discovery of type specificity of the pneumococci.⁴ While all pneumococci appear similar under the microscope, it has been discovered that they differ antigenically. Of chief importance in the line of type specific components are the glycoside (a complex carbohydrate) and the nucleoprotein of their capsule. At present there are some thirty-two verified specific types of pneumococci. The importance of this discovery is not merely in its academic implications, but of even greater importance is its thoroughly practical application in epidemiological diagnostic and therapeutic procedures. These type specific components are dissociated from their normal residence in the capsule of the pneumococci and are found in the serum and body secretions of the patient and the infected animal. Furthermore, since the nucleoprotein is specifically antigenic, it is productive of specific antisera in experimentally inoculated animals. This led to the work of Avery, Cole, and Dochez in which they first produced effective horse antiserum for Type I pneumonia. In order to be effective, huge

doses of this serum (80-90 c.c.) were given intravenously by the gravity method. In time modifications followed, chief among which was the development of a refined antiserum by Felton. Experimental work had shown that the specific pneumococcus antibodies were to be found in the euglobulin fraction of the horse antiserum. Felton therefore set about to eliminate the large portion of ineffective horse serum which did much to encourage or intensify allergic reactions but little, if anything to abate the pneumonia, or precipitate a crisis. By a simple method of precipitating the euglobin fraction in one-third saturation of $(\text{NH}_4)_2\text{SO}_4$ he had concentrated the effective fraction into a small volume indeed. This is then resuspended and standardized in units (rather than by volume). A unit has been defined as the least amount of serum which will protect a standard white mouse against 1,000,000 lethal doses of pneumococci.

However, this is but one phase of the story. A type specific antiserum is of little or no value unless the specific type of invading pneumococcus for a given patient can be determined. Furthermore clinical results show that success in the treatment of pneumococcic pneumonias with specific antisera is dependent to a large degree on the early administration of the serum. This postulates a reliable method of rapid identification of the infecting organism. Several methods have been used with reliable results but always the element of time has tremendously detracted from their practicability. Chief among these was the mouse typing in which the peritoneal cavity of a white mouse was used as a differential culture medium. The mouse has so little resistance to the pneumococcus, that although it is planted with many contaminants in its peritoneal cavity, after eight to twelve hours a practically pure culture of pneumococci can be obtained. Agglutination tests are then done on suspensions of this pneumococcus and the results reported. The factor of time is indeed a great obstacle to the use of this method.

Of late a much more simplified and just as reliable a method has come to enjoy widespread usage.¹ The method is not new, having been described by Neu-

feld in 1902. In his original article he reported that the capsules of pneumococci in contact with specific antiserum became swollen (hence the descriptive title *Quellung* phenomenon) and more distinctly outlined, the capsule itself taking on a ground glass appearance. In 1931 he added that he had found specific rabbit antiserum to be much more potent (antigenically) and productive of a more definite reaction than the usual horse antiserum. In 1932 Armstrong et al. reported that the reaction could be applied practically to the determination of the type of pneumococcus directly in sputum. In testing the reliability of this procedure as a diagnostic method, Sabin in 1933 applied it to one hundred cases of lobar pneumonia, using rabbit antisera. With Type I and Type II antisera he was able to identify one or the other of these types in fifty-three cases and obtained no reaction in forty-seven, which were subsequently shown to be caused by other types.

As was noted above some thirty-two authenticated specific types of pneumococcus have been identified (and an equal number are now in the process of identification). This presents a real practical problem for the laboratory diagnostician which has been met in a simple yet ingenious way. The sputum is first mixed with a drop of each of three polyvalent antisera (containing ten or twelve specific types each). If the *Quellung* phenomenon is observed in Drop A, the sputum is subsequently mixed with a drop of each of two polyvalent antisera containing six antisera which were also present in A. If now a reaction occurs with Drop E the sputum is tested with a drop of each of its component sera. Chart I simplifies this wordy explanation. The use of this rapid method of typing gave rise to another difficulty. In using the polyvalent antisera it was occasionally found that a positive reaction could not be elicited. This was attributed to the relatively large amount of soluble specific substance in sputa loaded with pneumococci as these specimens were. It was subsequently found that while working with a monovalent antiserum a combination of four parts antiserum to one part sputum is usually adequate, a relatively greater amount, about in the proportion of the

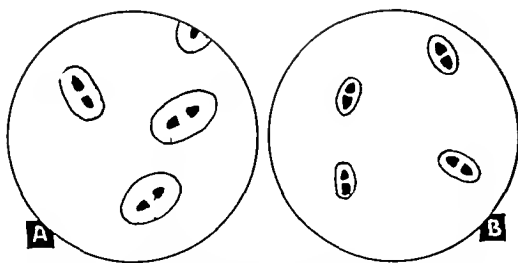


Fig 1 (A) Positive Neufeld reaction (B) Negative Neufeld reaction

antisera combined, i.e., twenty to forty times as much serum to sputum was necessary to give reliable results

An illustration of positive and negative Neufeld reactions might be in order (Fig 1).

The Neufeld method of typing pneumococci seems to be the most rapid and reliable that has yet been devised. It has the advantage that it can be applied wherever suitable microscopic means are available without other more cumbersome laboratory material. It has the further advantage that the approximate number of pneumococci present can be estimated, and if more than one type is present, one can see which is the predominating (and offending) one. Further it eliminates the chance taken by mouse typing that certain mouth pneumococci (though small in numbers in the sputum) may be more virulent for the mouse and overgrow the type productive of the patient's infection.

The relation of pneumococcus typing and the development of type specific antisera to public health is close indeed. While we cannot at present hope to stamp out pneumonia by sanitary engineering (as was done with typhoid) or by mass immunization (as is being done with diphtheria), our present knowledge should encourage us to attempt to decrease the mortality that this disease exacts each year by prompt and adequate treatment of such cases as are amenable to specific serum therapy. Notwithstanding the advances made by Cole at the Rockefeller Hospital in the serum treatment of type I pneumonias and later the refined, standardized serum used by Felton, serum therapy was still restricted to the large hospitals until 1930. With the idea in mind of evaluating serum therapy, the

Massachusetts Department of Public Health obtained financial assistance from the Commonwealth Fund of New York City to operate a plan of state-wide distribution for antiserum. The essential features of this plan and its attainments follow:

1. A state-wide system of laboratories was instituted for rapid typing of all cases. This is a preliminary to the administration of the proper serum.

2. The efficacy of this specific serum therapy is directly correlated with the stage of the disease during which it is administered. Very early treatment improves the results of serum therapy tremendously. With this idea in mind, this plan provided for serum available for use at home as well as in hospitals.

3. The serum, in order to prove effective, must be administered intravenously. Consultants were therefore made available to introduce this new form of therapy, as must always be the case in such a situation.

4. Widespread information and educational talks about serum treatment were instituted, in the form of articles in periodicals, speeches at medical society meetings, and graduate courses.

5. In order to put some limit on the costs of serum therapy, a table has been drawn up indicating the amount of serum preferable for each case on the basis of age, duration and extent of the disease, and the presence of complications in such a way that sufficient but not excessive amounts of serum may be issued for each patient. In order that exceptional cases may not be unduly handicapped by such limitations, more serum may be obtained upon presentation of the case before a duly constituted board in charge of serum distribution.

6. Records of the use of serum must be kept for each case and sent to the Health Department for study and tabulation of data regarding the efficacy and safety of the serums distributed. From these data, conclusions may be drawn as to the adequacy of present day dosage.

During the years 1931-35 some 743 patients were treated with serum in Massachusetts hospitals and some 213 at home, a total of 956 patients. From this study the following conclusions were drawn:

1. An average case of *Pneumococcus* type I pneumonia requires 75,000 U.

2. An average case of *Pneumococcus* type II pneumonia requires 135,000 U.

Cost. For type I the average amount

of serum would amount to \$45 while for type II the average amount of serum would amount to \$80. However, if the serum is supplied under governmental auspices it may be materially less expensive. If one takes into account the fact that pneumonia is a disease attacking young adults and those in the prime of life, in the period of their greatest usefulness, the cost does not seem excessive.

Estimated mortality reductions as a result of serum therapy follow

Mortality without serum		With serum
Type I	25%	10%
Type II	40%	25%
Type V	25%	{ too few treated to be accurate
Type VII		
Type VIII		

Such results are indeed promising and indicate that antipneumococcus serum has an established place (until a better method of treatment, or perhaps prevention becomes available) in the therapy of pneumonia cases.

Since Types I and II constitute about sixty per cent of the entire group of pneumonias, they deserve special study. It has been found that these types especially are usually spread by direct transfer of the infective agent from the patient to the noninfected. Methods to prevent such spread should therefore be taken. This may be accomplished by early diagnosis, isolation of all patients, and careful disposition of all excreta.

While the outlook for artificial immunization is by no means hopeless, it is still in the experimental phase and these experiments have frequently been complicated by extraneous factors. Therefore the chief reliance in the field of preven-

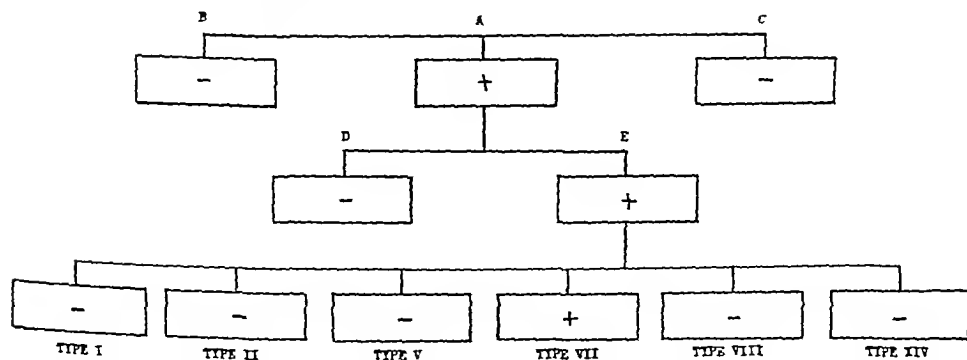
tion must be placed upon proper isolation of the patient.

With regard to reducing mortality figures for pneumonia, nothing can adequately replace specific antiserum therapy, especially in Type I. Oxygen inhalation and symptomatic treatment are also valuable, but should supplement, not displace, antiserum therapy. Every Type I pneumonia patient should be given type specific antiserum as early as possible and in large amounts. Exceptions are made by not giving serum to children who are not very ill, since most children with lobar pneumonia recover, in patients who are moribund and will probably die before serum can be administered or shortly after, and in those patients who are obviously in the stage of recovery when seen. All other cases should be treated as soon as the diagnosis is made.

The incidence of serum disease and its severity when it does exist have been reduced by the use of fifteen to thirty cc of concentrated (Felton) antiserum in place of the huge doses of straight, poorly standardized serum. In order to guard against any violent reactions in using serum, preliminary tests for serum sensitivity may be made, injections made slowly, and adrenalin used promptly in case any symptoms occur.

The efficacy of Type II has not yet been fully established. Its use, however, in Type II pneumonia is clearly justified especially when the very best serum is obtainable. It does not seem advisable at present to use Type III antiserum. With regards to the other types, some degree of success has been obtained, but experience with them has been too limited to

CHART I—DIAGNOSIS TYPE VII PNEUMONIA



draw conclusions. Of especial use in this larger group are Types V, VII, VIII, and XIV antisera.

Perhaps the most recent trends in the development of an intelligent public health viewpoint with regard to pneumonia are the following:

1 The U. S. Government mortality statistics for 1935 have just recently been published in their complete form.⁵ Among other valuable contributions, they point out that pneumonia mortalities have increased progressively from approximately 83,000 in 1933 to over 100,000 in 1935. Pneumonia still holds first place among the infectious diseases as a cause of death in the U. S. in the vital statistics of the Census Bureau.¹

2 New York State⁶ has taken legislative action to provide for an ample supply of pneumococcus antiserum. This bill was passed unanimously by both houses of the legislature, indicating that at last intelligent public opinion has been brought to bear upon this subject in an attempt to stem its ravaging tide. The bill provides for an appropriation of some \$400,000 to bring the "latest approved methods of medical science to bear in the most comprehensive attack yet launched anywhere against pneumonia." In the words of one of its proponents: "No health measure in the history of this or any other legislature has been so momentous in the direct saving of thousands of lives."

A more fitting finale to an article on "Pneumonia—From the Standpoint of Preventive Medicine" could hardly be found than these two excerpts from current events. They indicate more definitely than much theorizing the recognized importance of pneumonia as a public health problem. It is to this problem that the practicing physician as well as the

delegated public health officer will have to apply himself if progress in the control of pneumonia is to be made.

Summary

In order to further interest in decreasing the mortality rate from pneumonia, active steps should be taken by public health authorities and should consist in:

1. Providing laboratory aid for proper and early diagnosis of all cases.

2. Arrangements for proper registration of all cases for epidemiologic studies.

3. Educational measures for providing proper isolation of patients.

4. Supplying serum that is of maximum strength.

5. Assisting in the prompt and proper administration of the serum.

The institution of efforts by public health authorities will spread information concerning the epidemiology of the disease and stimulate investigation into the details of the infective process and the nature of immunity. Under such conditions, with the public cooperating, the time should not be too far distant when pneumonia will be as infrequent a cause of mortality as typhoid is now.

1433 HANCOCK ST.

References

1. Cooper, G. M. and Walter, A. W. *Am. J. Pub. Health* 25: 469, 1935.
2. Vaux and Benz. *Ibid.* 16: 502, 1926.
3. Robinson, E. S. *New Eng. J. Med.*, 216: 459, 1937.
4. Cole, R. *Am. J. Pub. Health*, 26: 1191, 1936.
5. Vital Statistics of the Census Bureau for 1935. Dr. H. L. Dunn, Chief Statistician, Published April, 1937.
6. Pneumonia Control Program, Press Reports from Albany, April, 1937.

DOCTORS BACK A DOCTOR FOR OFFICE

The candidacy of Dr. Charles N. Gelber, president of the Physicians and Allied Professions Nonpartisan League, who is a candidate for Councilman from Manhattan on the Fusion and Progressive parties' tickets, has been endorsed by four medical bodies; it was announced at a luncheon of the league in the Murray Hill Hotel.

Copies of resolutions approved by the groups, which include the Medical Society of the County of New York, were read at the luncheon by Dr. Morris Rosenbaum, who pointed out that this was the first time

the society, which was organized in 1806, had endorsed a candidate for public office. The other organizations approving Dr. Gelber are the Audubon Medical Society, the Physicians Equity Association of America and the Medical Alliance.

Dr. William H. Park, director emeritus of the Bureau of Laboratories of the Health Department, praised Dr. Gelber as a medical man and urged that he be supported.

Dr. Park was elected honorary president of the league. He is the first person to hold that office.

ACCIDENTAL SMALLPOX VACCINATION AND ECZEMA VACCINATUM

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From the Department of Pediatrics, New York University College of Medicine and the
Children's Medical Service of the Third (New York University) Medical Division,
Bellevue Hospital

There is a notable paucity in the American literature of case reports of generalized vaccinia. Doubtless many more cases occur than are reported or perhaps recognized. Since numerous reviews of the foreign literature on this subject have been published, a complete summary will not be attempted. Ellis¹ and Tedder² in their reports include references in considerable detail to contributions by previous writers.

In 1904, Professor F Blochmann, a noted zoologist of Tübingen, published a work raising the question whether vaccination was surrounded with adequate safeguards. Blochmann (although himself not primarily engaged with medicine) was sufficiently broadminded to appreciate, when his own son had lost an eye as the result of accidental vaccination, that the problem involved did not relate to the wisdom of vaccinating, but rather to the question of sufficient care in vaccinating. In his research, covering the period from 1880 to 1903, he found that in 140 cases of vaccinal infection, infectious material was conveyed by recently vaccinated children. In sixty-one cases the eyes were seriously involved, with severe disturbance or actual loss of vision in nine. In sixty-five cases, mothers were affected, and unvaccinated children in twenty. In nineteen cases of this group of children in which eczema was present, vaccinia became widespread and death resulted in five. In one case ulcerative keratitis occurred, ending fatally. An excellent report by Dock³ cites in detail the review made by Blochmann and the tragic case in Blochmann's own child which is recorded as follows:

The boy was born January 6, 1901. From the 3rd month he had slight eczema which remained chronic on the face. On November 3rd or 4th (following the vac-

cination of an older brother October 21st), the eczematous infant became ill, and from the 10th or 12th of November (or about 20 days after the elder child's vaccination), he developed pustules on the face, hands, thighs, and abdomen. On November 13th, the face was scratched and bled freely. The following day the right eye became involved. Perforation and panophthalmitis rapidly followed. Recovery was slow and unsightly scars were left on the face.

A woman who washed the child's bandages acquired typical vaccinal pustules on her wrist.

Marick⁴ emphasized the fact that generalized vaccinia is divided into two groups: one developing on an underlying skin lesion such as eczema, impetigo, or abrasions, as the result of direct or indirect contact, the other known as "true vaccinia", developing as a result of conveyance by cowpox infection through the blood stream about nine to eleven days after vaccination. Marick reported a case of "true vaccinia" (associated as are most such cases with a strong "take" but running a mild course) in which, after the eleventh day, crops of lesions going through the stages of a vaccination lesion, kept appearing for over three weeks.

Platau,⁵ in an article entitled "Eczema Vaccinatum," published in 1934, noted that although vaccinia from autoinoculation tends to be benign, even in the generalized form, the same disease superimposed on infantile eczema is far more serious, and usually fatal when the face is involved. He emphasized this fact by a very thorough case report which is here abstracted in brief.

A white boy, aged five months, was admitted to the hospital for fever, restlessness, and facial eczema. For two days this had become aggravated by pustulation and swelling. During the next three days the lesions spread over the entire face. The

Read at the Annual Meeting of the Medical Society of the State of New York
Rochester, May 26, 1937

temperature became elevated to 104. Confluent grayish white pustules with indurated borders and central depressions developed. Inquiry then revealed that a three-year-old brother of the patient had been vaccinated two weeks prior to the onset of the present illness. Stupor, slight strabismus, dyspnea, hyperpyrexia, abdominal distension and signs of pneumonia completed the clinical picture. The child died about the fourteenth day, shortly after the pneumonia became apparent. Postmortem cultures from the skin, spinal fluid and blood were sterile. However, autopsy culture of the brain tissue yielded a streptococcus, and glycerolated brain tissue injected intracranially into rabbits produced death in twenty-four to forty-eight hours. A positive identification of the etiologic agent was inconclusive, although it was thought that the virus of smallpox might have been present.

Platau concluded that vaccinated areas in children should be dressed and that extreme caution should be observed in vaccinating infants with open skin lesions.

Ellis⁴ (1935) reported two cases occurring in twin boys, three years of age, in which the diagnosis of eczema vaccinatum was made. In one, which terminated fatally, pustules developed about twelve days after the vaccination of an elder brother. From an extensive review, Ellis concluded that few cases of generalized eruption due directly to the vaccine virus are to be found in the American literature, that there is substantial evidence that eczema vaccinatum and generalized vaccinia are essentially the same, and that in both diseases the virus is disseminated by the blood stream. He commented that in eczema vaccinatum the appearance of the lesion mostly or only on eczematous areas does not prove that the virus arrives there by experimental autoinoculation, as it may be prone to develop in an area of lowered resistance following blood stream dissemination. By the same authority, the work of Gins and his co-workers⁵ was cited in support of the view that the virus is disseminated by the blood stream following vaccination.

Lillie and Armstrong⁷ in concluding an exhaustive report on the pathology of generalized vaccinia in rabbits, published in 1930, state

The primary effect of the virus of vac-

cinia and variola appears to be cell irritation and injury, manifested by proliferation, various forms of cell degeneration and coagulation necrosis. The inflammatory reaction is much less conspicuous in the parenchymatous visceral lesions than in those of covering epithelia. It appears to have been primarily mononuclear and proliferative in nature except where necrosis or secondary bacterial invasion have occurred. The cutaneous, mucous membrane, and visceral lesions of variola and vaccinia parallel each other so closely as to lead inevitably to the conclusion on purely pathologic grounds that they are the effect of one virus, which, it is true, shows varying degrees of virulence.

Very recently the subject, "Eczema Vaccinatum" has been exhaustively reviewed by Tedder². He emphasizes the identity in clinical appearance of eruptions thus designated and the varicelliform and pustular vacciniiform conditions described by Kaposi in 1887 and Juliusberg in 1898. Failure to obtain a history of exposure to vaccine virus, according to Tedder, accounts for the failure to use a single term of designation for numerous cases variously labeled but clinically in the same category.

Inoculation of the contents of lesions into a cornea of a rabbit is indicated in doubtful cases to establish the virus etiology.

This authority furthermore interprets true generalized vaccinia as a disturbance of balance between the virus and the viricidal substances in intact healthy skin, so that the virus, which is disseminated hematogenously following its inoculation, becomes active in the skin and produces the characteristic vesicopustular eruption. He considers eczema vaccinatum, as due in most instances to exogenous inoculation.

Basis for further consideration of the problem is afforded by the following case records from the Children's Medical Service of Bellevue Hospital.

(The photograph of the colored child whose case is first to be described is presented through the courtesy of Dr. Howard Fox. The other photographs and charts were made by Dr. Charles H. Smith.)

Case Reports

CASE 1 A colored boy aged two and one-half years, was admitted to the Chil-



Fig 1

dren's Medical Service of Bellevue Hospital on October 6, 1929. The patient had had eczema for one and a half years which was generalized and scaly. Three days before admission the patient became feverish and listless and the rash on the neck became pustular. On admission, the child was acutely ill. The face and hands were covered with small papules about one-half cm in diameter, which felt hard and shotty. The neck was swollen and covered with umbilicated pustules with an indurated margin (Fig 1). The cervical and axillary glands were enlarged and tender. Over the arms, legs, and trunk were dry, scaly lesions, some of which were papular. The eyelids were swollen. The conjunctivae, however, were clear.

On September 16, a three-year-old sister had been vaccinated. Eight days later the vaccination was declared a "take" and the scab separated on October 4.

During the patient's stay in the hospital, the temperature remained around 104-105° for twelve days. The general condition became rapidly worse and the patient expired on October 18. A necropsy showed eczema and vaccinia of the skin, fatty degeneration of the liver, cloudy swelling of the kidneys, congestion at both bases of the lungs, and congestion but no evidence of encephalitis in the brain.

CASE 2 A white male child one year of age had been well until the age of nine months when solid food had been added to his diet. Eczema of the face, trunk, legs, and arms developed two to three weeks later. This was scaly but never oozing.

On February 21, about eighteen days prior to our first observation, the patient's two-year-old brother was vaccinated and at

the same time the patient was given diphtheria toxoid. The brother's vaccination took well with three vesicles which were never known to be scratched or broken. In fact a dressing had been put over the vaccination and long sleeves worn. On March 6, the patient's face became swollen and next day fever was noted and the left eyelid was swollen. By March 8, anorexia was marked, fever was continuous, and for the first time lesions appeared on the anterior chest, abdomen, wrists, thighs, and knees. These were described as "water blisters," some single, some grouped.

On March 10, I was requested to see the case by Dr. Vincent Malerba who himself had succeeded the physician first in attendance. No information was given relating to the vaccination of the patient's brother upon this examination but the appearance of the case was so unusual and striking that we remarked that one might justifiably think of smallpox on seeing the eruption which included discrete, shotty and umbilicated lesions difficult to associate etiologically with the eczema. The infant's parents readily consented to have the patient removed to Bellevue immediately and there on the same day the diag-



Fig 2

nosis of vaccinia complicating eczema was made and confirmed by a more complete history and the opinion of dermatologists

Upon admission March 10 with temperature 103° , the child appeared acutely ill and toxic. There was marked swelling of the face so that the eyelids could not be opened and the entire face, upper chest, lower abdomen, groins and buttocks were covered by masses of lesions which consisted of confluent lentil-sized umbilicated pustules. At the borders of each mass, where discrete lesions existed, the pustules were surrounded by an inflammatory edematous halo. In addition to these patches there were about a hundred similar lesions scattered over the entire body but predominantly on the hands and upper chest. Some of these lesions were discrete and others confluent.

The accompanying illustration secured shortly after this child's admission to Bellevue Hospital give a better idea of the skin appearance than a word description (Fig 2). During the patient's stay in the hospital his temperature ranged from $102-104^{\circ}$ without wide fluctuation. Prostration and stupor were continuous except for insignificant intervals. Signs of bronchopneumonia were detected on March 17. In spite of some subsidence of the edema of the face, death occurred March 25.

On March 12, the mother of the patient whose case has just been cited, likewise developed similar lesions, which were indurated and vesicular, on her palms and upper arms, with one lesion on the face (Fig 3). A temperature of 102° was associated with the skin condition. She recovered after two weeks. Inquiry elicited that she had not been vaccinated since the age of eight years.

Ruhrah,⁷ discussing complications due to vaccine virus, stated "When an individual is suffering with any skin disease or has numerous abrasions upon the skin and the vesicle becomes ruptured, the virus is easily transferred usually by scratching, and in some instances a very severe generalized vaccinia has been produced."

Most commonly autoinoculations occur upon the cheek, tongue, breasts, and buttocks with a tendency to affect particularly patches of eczema. The instance is recorded of a physician who vaccinated several children, and then, upon being asked to remove a foreign body from the eye of the mother, did so without first washing his hands. The

eye was saved only by continuous and careful treatment. Even ointments used on vaccination sores may transfer the virus, as noted by Ruhrah in reporting a case of a man who was inoculated accidentally as the result of applying ointment to chafed areas produced from riding horseback.

Occurrences not dissimilar are recorded by several earlier writers cited in Tedder's report.

We have been informed by a professor of pediatrics from Cologne that in Germany it is against the law to vaccinate any child in whose environment there is a case of eczema.

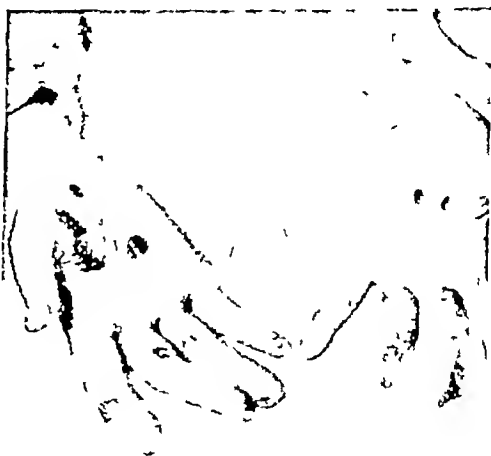


Fig 3

For lack of time a consideration of vaccination methods, particularly intradermal vaccination, is not included in this report.

Finally it would be regretable if this recital should be interpreted as an anti-vaccination argument except in exceptional instances. More and better vaccinations are in order.

Conclusions

1 Two cases of eczema vaccinatum are reported with autopsy findings in one.

2 It is recommended that in considering vaccination, inquiry be made into the presence of eczema or other skin diseases in the patient's family or environment. If eczema is present in the

family no member of it should be vaccinated

3 The importance of careful technic in the operation is emphasized and a suitable nonrestrictive but protective gauze dressing for the sore in its active stage is recommended

121 E. 60 St

References

- 1 Ellis, Francis A. *J.A.M.A.*, 104 1891, 1935
- 2 Tedder J W *Arch of Dermatology and Syphilology*, September 1936
- 3 Dock, George *N Y Med Jour*, January 1906
- 4 Marick, S W *Arch Pediat*, August 1932
- 5 Platon *Am Jour Dis Child*, 48 333, 1934
- 6 Gins, H A., Hackenthal, H, and Kametzewa *N Zentralbl. f. Bakt*, 110 115, 1929
- 7 Ruhrah *Bilings Forchheimer's Therapeutics of Internal diseases*, Vol III pp 212 219, Appleton, 1924

Discussion

DR. DONALD D. POSSON, *Rochester*—Several years ago a case was seen at the Strong Memorial Hospital which was similar to those reported by Dr Graves. This was a three year-old boy with eczema who had been infected with vaccinia by an older brother. The brother also had eczema and had been vaccinated about two weeks before. Our patient had vaccination pustules scattered over the entire body, was very toxic, developed bronchopneumonia, and died.

Recently Rivers and Ward have reported a method of intradermal vaccination against smallpox which produces no pustule and consequently causes no scar formation and leaves no scar. They used a culture vaccine virus which they have carried through numerous passages in chick embryo tissue and Tyrode's solution. The cultivation of vaccine virus *in vitro* has provided a bacteria free agent mild enough in its action to be injected intradermally in humans. This virus is mixed with gum acacia, frozen and dried and sealed in small glass containers. For use in intradermal vaccination the contents of one of these containers is dissolved in two c.c. of sterile saline solution and 0.1 c.c.

is injected intradermally into the skin. Care must be exercised that the needle hole be washed well with alcohol to prevent the slight leakage of solution causing a vesicle formation.

Using this method Dr Kaiser and I have vaccinated eighty-one children who had never been vaccinated before, and obtained sixty-six "takes." The height of the reaction usually occurs on the ninth or tenth day with a central dark red, slightly raised area about one cm in diameter surrounded by a secondary zone of less intense redness of two to six cm in diameter. Two cases only showed tiny vesicles. The others showed no vesicle, scar or scar. The children were not ill and could play and be bathed during the period of "take" as usual. The advantage of the lack of vesicle formation is obvious.

Although we did not use this method to vaccinate any child suffering from eczema, we believe it would be perfectly safe to vaccinate other members of a family in which a case of eczema existed and that the extended use of this method may help to prevent such fatal accidents as have been described by Dr Graves in his excellent paper.

THE DOCTOR'S WIFE IS CELEBRATED IN SONG

A delightful feature of the annual meeting of the Woman's Auxiliary to the Medical Society of New Jersey was a poem by President Herrman of the State Society, which he read at the luncheon of the Auxiliary.

When you come home as daylight dawns,
Who turns in bed, and only yawns?

The Doctor's Wife.

In broken bone or typhoid fever,
Who thinks you're tops like John B. Deaver?

The Doctor's Wife.

When accounts run low and it's your crisis,
Who lets you down by easy lysis?

The Doctor's Wife

When you're so tired you could die,
Who lifts the 'phone and tells a lie?

The Doctor's Wife

'Less some one lies and screams with pain,
Then sends you out in snow or rain?

The Doctor's Wife

If I am by you understood
Who takes care of the neighborhood?

The Doctor's Wife

A PSYCHIATRIST IN A POLICE COURT

Impressions and Experiences

RICHARD C A JAENIKE, M D, *Rochester*

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The need for psychiatric clinics in Criminal Courts has received an increasing amount of comment since their inception a few years ago. While the subject of delinquency and crime in its protean phases has been freely discussed in the newspapers, magazines, and over the radio, much of the discussion has been based upon opinion rather than facts, with little appraisal of the results of various forms of treatment. Considering the mounting seriousness the crime problem now presents to the country, it is felt that a survey of a series of typical offenders referred by city and county courts may be of interest and value.

This paper concerns the psychiatric study of prisoners remanded by City Court Judges for examination and opinion. The clinic consists of a part-time psychiatrist who spends two half days a week at Police Court, a consulting psychologist, and the staff of the City Probation Department. The latter make all the initial investigations, submitting a detailed case history. This staff also plays an important part in the follow-up work of cases recommended for probation.

In the beginning this service was limited to the obvious psychopathic cases where the question of commitment was of primary importance. As the service and amount of time increased it has become possible to make routine examinations of a large variety of cases and more detailed studies, carrying certain cases through psychiatric outpatient clinics, planning rehabilitation programs with probation staff and local social agencies.

The method of procedure varies in individual cases. Misdemeanants are seen at police headquarters, frequently for

only one interview as it is unfair to detain the individual in jail any longer than necessary and because of delay to court routine and crowded dockets. Acute and difficult cases are sent by police commitment to hospital for observation and treatment as long as the psychiatric staff consider necessary. In the matter of felony cases, the psychiatrist may take a longer period of study, seeing the accused repeatedly or referring him to psychopathic ward if indicated.

The type of interview must be diversified as each delinquent presents a different problem. For example, The habitual criminal or the individual with the "criminal attitude" generally gives a well-rationalized story of innocence, a categorical denial, or a simple refusal to make any statement. The orthodox psychiatric approach is unproductive. With some an aggressive direct method of questioning elicits sufficient information to get a picture of the person's makeup, an attitude about himself and toward society. An explanation that his cooperation may lead to a happier solution for everyone concerned is effective with others. There remain in this group a fair percentage where the interview is confined to the immediate factors of offense and arrest. Another series who make a wholesale negation, even in the face of positive evidence, are the sexual delinquents. This reaction is understandable when one considers the bitter resentment of the community. Rapport is more easily made with the first offender, the mentally retarded, and those suffering from some form of a psychosis. In our experience it has been felt that the accused associates the psychiatrist with police, prosecutor and court, even though he is assured that a confession or any data tending toward a conviction is not wanted. Another factor that may well influence the prisoner is the anxiety over

Classification used in this study follows as closely as possible the one used by the National Committee of Mental Hygiene.

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tained by the probation department reveals that the native-born or foreign-born parentage contributes more to our criminal ranks than do the native-born of native parents. This conclusion has been reached by other writers and students of criminology. Of the foreign parents in our series, forty-nine per cent were of Italian birth, fourteen per cent of Irish birth, twelve per cent of Polish birth. The records showed both a lower educational and economic status in the foreign-born than in the native-born.

Any study of crime leads eventually to a search for causative factors. Arguments have been advanced that the complexity of modern life, the passing of thousands of laws, and the increasing struggle for economic survival are the basic elements. Many hypothetical causes have been explored but no single one has been scientifically determined as the responsible agent for criminality. The country's foremost authorities in this field stress preventive measures as the best means of combating delinquency. To this end socially-minded groups have organized coordinating community programs, more widespread recreational facilities, and mental hygiene clinics. Our study shows the criminal possesses an early developmental period characterized by a marginal economic standard of living, poor home, and delinquent or semi-delinquent neighborhood, and inadequate parental controls. The habitual criminal in the great majority of instances had an early history of delinquency, undesirable habits and companions, and irregular employment. Among our adult first offenders, one notes as outstanding problems economic stress, sexual difficulties, marital incompatibilities, and dissatisfaction with their situation in life.

Our general conclusions are that factors causing antisocial behavior are extremely complex and multiple. Practically no physical findings were found that had any significant correlation with criminal or delinquent tendencies.

The city court judges realize the futility of punishment in many cases, but year after year the same group of offenders appear before them and for the lack of any other disposition the judge must of necessity order the same method of disposition realizing that the results

will probably be disappointing. This is particularly true in cases of public intoxication. The Court records of several of these cases are rather interesting, for instance, one chronic alcoholic has spent seventeen years, two months in the County penitentiary in the past twenty-one years, another has spent seven years, four months in past twenty-one years and so on, all at the cost of \$1.08 per day to the county.

As yet there is no guide for Judges regarding disposition of offenders. They are constantly seeking ways and means to find proper methods that will modify behavior and situations. In a certain number of adults we have found that they regard life in penal institutions as very desirable. However, there is some measure of success found in a large number of cases so that the Court experience may have been a healthy one.

From the angle of therapy our studies indicate that little can be accomplished with the habitual criminal, the chronic alcoholic, and the professional prostitute. The attitude and personality make-up of these types and the present facilities available militate against rehabilitation. The excellent institutions directed by the New York State Department of Mental Hygiene offer a solution for the psychotic, epileptic, and mental defective. The neurotic individuals gain little by sentence to jail and their problems are best solved by psychiatric treatment. This plan is not wholly successful as many respond very slowly to therapy. Situational depressions can very often be aided through psychotherapy, an active probation service, and the assistance of local agencies. The same technics are frequently helpful in readjusting the dullard and borderline individuals.

A Court psychiatrist quickly recognizes the dilemmas arising from the legal and medical concepts, but must endeavor to harmonize the two as much as possible if his work is to benefit either society or the delinquent. Many of the present difficulties will undoubtedly be solved with time and experience. In conclusion, we have found that criminal acts are not always committed by certain individuals who can be defined, socially, psychologically or psychiatrically.

Discussion

DR. R. MONTFORT SCHLEY, *Buffalo*—The Erie County Probation Department deals exclusively with major crimes. All cases examined in this department are before the County or Supreme Court so that I, as psychiatrist, have had little experience with criminals in the lesser courts. The criminals are examined after conviction and the psychiatrist is used not only to weed-out the mentally unbalanced and abnormal, but he is used to get the attitude toward society and the reactions to everyday life of the convicted man, and to see if he is antisocial and liable to be a danger to society—all to help the Judge in sentencing him.

One of the greatest helps that I have found in my work with criminals is the classification given by Dr. Menas S. Gregory, Head of the Psychiatric Division of the Court of General Sessions in New York (*American Journal of Psychiatry*, January 1936) and a revised classification by Dr. Thompson of the same division (*Mental Hygiene*, October 1936). Dr. Thompson classifies the criminals as definite psychosis, borderline psychosis, mental defective psychosis, personality neurosis, and normal individuals with prominent characteristics, in this last type, the majority of our criminals fall. Here we have the aggressive type, the unstable type, and the adolescent type. These are the immature boys who have not adjusted themselves to life's problems. Many of them have schizoid features and may commit crime in the spirit of adventure, who are temporarily antisocial but who soon mature and cause no further trouble. This was brought out very forcibly by Dr. Thompson a few weeks ago before the Psychiatric Association in Pittsburgh where he showed that as men grow older, as between the ages of thirty-five and forty, there are very few repeaters who come back to the Courts.

After examining many thousands of criminals during my twenty-year service in the Probation Department, I firmly believe that psychiatrists should use great care in what they offer, in regard to the cure of these criminals, to the Courts. Glueck's thorough investigation of a thousand cases from the Judge Baker Foundation, proves that eighty-five per cent were considered failures, and the results in Warwick Village in New York have been very discouraging to its founders and workers.

It is evident that the study of crimes and

criminals needs a very thorough investigation. In the Wickersham report of crime and criminals, there is a record of only 500 that had been thoroughly investigated and this was not complete as it included only one type of crime, in this report, they call attention to the lack of thorough investigation of criminals. I, too, feel that this subject has not been completely examined and that we need someone in the criminal world, comparable to Kraepelin or Meyer in Psychiatry to bring out all there is to know about criminals. I believe that all we have tried to learn about them should be discarded and a new nomenclature be built up which will lead to a better understanding of these individuals.

I firmly believe that crime is a disease of personality as truly as insanity is a disease of the mentality. I believe that the men who are in charge of our prisons should have a thorough training in crime and that they should be removed from politics. I also believe that individuals who are truly antisocial should be taken out of society and confined for the rest of their lives, for the sake of better protection of society on the same principle that our insane are kept in institutions until they die or are cured.

In the literature, we find many claims for mental deficiency being the major cause of crime. On looking over the army tests of 94,000 individuals who had careful mental tests during the World War, we find that the average is twelve to thirteen years and that 71 per cent were below this average level. In our criminals we have found practically the same proportion of mental defectives as we do in average life. My experience has been that only about one per cent are definitely psychopathic individuals. I believe that we can divide criminals into three classes: (1) The normal individual who gets into trouble through accident or because of immaturity, (2) The weak-willed individual who is easily led and influenced by others into committing crimes or who does not think things through to the ultimate end and commits crime to relieve him of immediate difficulties, (3) The definitely antisocial individual who commits crime as a livelihood. To these may be added a fourth group of the very small percentage of definitely psychopathic individuals who commit crimes on account of their insanity.

Baby ear of corn "Mama, where did I come from?"

Mama ear of corn "Hush, dear the stalk brought you"—*Jercyville (Ill.) Democrat*

ENTEROCOCCUS ENDOCARDITIS

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Bacterial endocarditis caused by the enterococcus is extremely rare. Very little can be found in the English literature concerning its pathogenicity, most case reports being by German and French authors. Aschoff¹ was of the opinion that the role played by the enterococcus in systemic disease was just beginning to be appreciated. In view of the above, the following case is reported.

Case Report

S T a white male, age fifty, was admitted to the Bronx Hospital on the Medical Service of Dr A Goldman, May 31, 1935, with the chief complaint of fever.

His past history included pneumonia, appendectomy, and herniorrhaphy. He had never had rheumatic fever in any form, nor had he ever exhibited signs of diminution in cardiac reserve except for slight dyspnea on exertion which began about a month before onset of the present complaint.

Eleven weeks before his last admission, following an upper respiratory infection, the patient began to run a daily fever of 103-104°F. There was no chill, cough, chest pain nor expectoration, but his condition was diagnosed clinically as a pneumonia and this was corroborated roentgenographically. Two weeks later he developed hematuria. He was hospitalized in another institution where a positive blood culture of the enterococcus was obtained. Shortly after, the spleen became palpable and dark red petechiae were found in the conjunctiva. X-ray revealed a resolving pneumonia in the left lower lobe. The hemoglobin fell from seventy-five to sixty per cent. He left the hospital against advice and on his way home experienced a severe chill. A few days later he was admitted to the Bronx Hospital where several positive blood cultures of enterococci were obtained, there being about 100 to 120 colonies per c.c. of blood. The heart was found to be enlarged and of a mitral configuration. Loud systolic and diastolic murmurs were heard at the base. There was clubbing of the fingers. During the period of hospitalization, the hemoglobin fell to fifty per cent (Sahli) with 3,100,000 red cells per c.c. The leukocyte count ranged between 10,000 and 12,000 per c.c. of which eighty-five to eighty-eight per cent were

polymorphonuclear leukocytes with a marked shift to the left in the Schilling index. The temperature ranged between 101 and 104.2°F, being of an irregular, septic type. His general condition became steadily worse. Pulmonary edema developed and the patient expired in cardiovascular collapse, approximately three months after the onset of his symptoms.

Autopsy findings. The relevant autopsy findings were as follows:

Heart. The heart was enlarged downward and to the left, measuring thirteen by thirteen cm in its largest diameters. In the pericardial cavity, there were about fifty c.c. of dark amber fluid which gave on culture a pure growth of enterococci. The right auricle and its appendage were moderately dilated and filled with non-adherent blood clot. The right ventricular musculature appeared thinned. The tricuspid and pulmonic valves showed no gross pathology. There was a one and five-tenth by one cm hemorrhagic, friable vegetation on the aortic cusp of the mitral valve near the point of attachment of the valve, and a smaller vegetation to its right (Fig 1). A fragment of the larger vegetation was crushed and, on staining, revealed a gram-positive coccus. There was ulceration of the mitral valve with evidence of a mycotic aneurysm. Several two-three mm vegetations were present on the remainder of the mitral valve and on the subjacent endocardium. There was no evidence of thickening of the valve. The chordae tendinae showed no gross pathology. Numerous small, flat ulcerations were seen on the aortic valve, with narrowing of the ostium. The anterior leaflet was completely covered by shreddy, friable vegetations. Similar vegetations were also present on the other cusps and on the endocardium, there being several areas of ulceration, the largest corresponding on the aortic side to the larger of the two vegetations on the mitral valve. There was some thickening of the aortic cusps. The left ventricular musculature was paler than normal and thickened. Microscopically, there was a moderate degree of interfascicular fibrosis and edema. Aschoff bodies were not found.

Lungs. There was grey hepatization of the entire right lung and of the lower lobe of the left. There was a thick, purulent exudate over the right lung which gave on culture, a pure growth of the enterococcus. Microscopically, the lungs showed a lobar pneumonia.

Intestine. There were a few small foci in ileum suggestive of focal hemorrhagic necrosis with ulceration and an irregular flattened atrophic area in the upper rectum, suggestive of healed ulceration.

The anatomic diagnoses were

1 Vegetations mitral and aortic valves

- 2 Ulcerations mitral and aortic valves
- 3 Thickened aortic cusps
- 4 Pericardial effusion
- 5 Pleural effusion, bilateral
- 6 Pleuritis, bilateral, acute and chronic
- 7 Consolidation of lung, grey hepatization, bilateral
- 8 Infarcts liver, spleen, kidney
- 9 Healed ulcerations, rectosigmoid

Comment

The enterococcus is a gram-positive, pleomorphic coccus, usually growing as a diplococcus or in short chains. It is closely related to the *S. faecalis* and the *S. lactis aerogenes*. It grows readily on ordinary broth and agar, is an aerobe and facultative anaerobe, heat resistant, grows in ten to twenty per cent bile media, and ferments aesculin and salicin.



Fig 1 Arrow points to vegetations on mitral valve

It is necessary in the individual case to establish definitely that one is dealing with the enterococcus and not with an atypical streptococcus or pneumococcus.

The organism was called the enterococcus by Thiercelin in 1899 and is found as a saprophyte in the intestinal tract. It often invades the genitourinary tract, especially in females, and has been isolated from the urine and the genital passages. It may be present in the respiratory tract and can become pathogenic in any of these sites. It has been described as a pathogenic contaminant of war wounds and has been isolated in pure culture as the causative agent in a variety of diseases—pyelitis, ulcerative colitis, postoperative peritonitis, and generalized sepsis²⁻⁴. Felsen⁵ calls attention to the important role played by the en-

terococcus in chronic bacillary dysentery (chronic ulcerative colitis). He has recovered the organism from the intestinal contents, intramural abscesses, and the renal pelvis. He states that it is responsible in part for the chronic, non-specific intramural infection which occurs through the ulcers originally produced by *B. dysenteriae*. The enterococcus has been most frequently described in two conditions—postabortal sepsis and endocarditis. The portal of entry into the general circulation can usually be found at necropsy.

Wallach⁶ has pointed out several features of this form of endocarditis that are uncommon in those caused by the streptococcus viridans. These include a tendency to extensive infiltration of the heart muscle that accounts for the usual termination with myocardial failure and a tendency to formation of infected infarcts.

The enterococcus, as do other organisms, most commonly affects the left side of the heart and valves that have been damaged by previous infection. The disease may follow an acute or subacute course, the prognosis being bad. Auto-genous vaccines have been employed in treatment, especially by the French, in addition to the usual forms of supportive therapy including blood transfusions.

The case described above presented several unusual features. The endocarditis developed without clinical evidence of preceding cardiac damage and in a heart that presented no anatomic lesion except for slight thickening of the aortic cusps. There occurred extensive pneumonic involvement apparently of a recurrent type with a purulent exudate on one lung, giving a pure culture of the enterococcus. We have no information concerning the bacteriology of the inciting pneumonia which was extremely atypical in its onset and course. The enterococcus found in the pleural cavity was probably present there as the result of hematogenous infection.

Ulcerations, both recent and healed, were found in the alimentary tract, the normal habitat of this organism, and we must consider the possibility that, however these ulcerations were produced, the enterococcus may have entered the blood stream through these ulcerations.

FINDING TUBERCULOSIS WITH THE AID OF THE PRIVATE PRACTITIONER

Review of the Work of the Mott Haven Consultation Chest Service, 1934-6

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Introduction

In 1929 the first* Department of Health Consultation Chest Station for private physicians was set up at the Bellevue-Yorkville Health Demonstration in New York City. X-ray equipment for chest examination was installed here by the Demonstration financed by the Milbank Memorial Fund.

The experience gained here in metropolitan health administrative practices with services for the people and physicians of the district, has been an important factor in the formation of plans to establish such services in other districts throughout the city. Under the leadership of Shirley W. Wynne, then Health Commissioner of New York City, six other Consultation Chest Stations for private practitioners started operation in various districts of the city. The Academy of Medicine and the County Medical Societies have heartily endorsed this plan.

The approval for the establishment of this type of community health service is based on the following considerations:

1 That the family physician is a very important factor in any community health program, and that any effective tuberculosis work cannot therefore be undertaken with any hope for success without his active and intelligent cooperation and support.

2 That to find early cases of pulmonary tuberculosis, the physician must be provided with complete and easily available modern diagnostic facilities to supplement his own resources.

3 That through the Consultation Service

the Health Department will establish and maintain new contacts with a large number of private practitioners and thus constantly expand its influence in the direction of prevention, and the promotion of better community health.

The Consultation Chest Stations are not intended to provide free chest x-rays for the patients of private physicians. Rather they are designed to give the family physician a chest consultation service for those of his patients who can afford to pay his fee, but are unable to meet the cost of an examination by a specialist.

Aims

In the operation of these stations our aims are:

1 *Tuberculosis case finding*, by providing modern facilities and trained personnel for the examination of patients who present diagnostic problems in tuberculosis.

2 *To find early tuberculosis*, by providing facilities for the examination of contacts to cases of pulmonary tuberculosis which are diagnosed at these clinics.

3 *To control household epidemics of tuberculosis*, by the assistance given to the family physician in arranging for institutional care for those in need of such care.

It should be emphasized here that the plan of consultation chest station is not antagonistic to the economic or professional status of the family physician, rather it is a realignment and strengthening of the general practitioner's resources for effective tuberculosis work, so that patients of moderate means may be encouraged to make frequent consultations with their family physician.

The extent to which these aims and objectives are achieved is told in the following account of the work of the Mott Haven Consultation Chest Station during

*The first Consultation Chest Service for private physicians in New York City was started in June 1924 in St. Johns Hospital, Long Island City, under the sponsorship of the Queensboro Tuberculosis and Health Association. It is still in operation.

TABLE I—NUMBER OF PATIENTS REFERRED BY INDIVIDUAL PHYSICIANS

Number of Patients Referred	Individual Physicians Referring Patients		
	1934	1935	1936
1	202	246	233
2 to 10	187	198	212
10 " 20	28	23	27
20 " 30	6	10	7
30 " 40	4	6	2
40 " 50	3	4	0
50 and more	3	0	0
Total	433	487	481

TABLE II—NUMBER OF PATIENTS EXAMINED

	New Patients			Re-Examinations			Total Examinations
	Adults	Children	Total	Adults	Children	Total	
1934	1469	503	1972	254	43	296	2268
1935	1346	643	1989	331	57	388	2377
1936	1216	344	1560	217	111	328	1888
Total	4031	1490	5521	802	210	1012	6533

TABLE III—TUBERCULOUS PULMONARY LESIONS IN 5,521 PATIENTS EXAMINED

	Number of Patients	Number Found Tuberculous			Positive Sputum	% Pos Sputum	% Pos
		Inactive	Active	% Active			
1934	1927	116	154	7.8	52	34	34
1935	1989	164	132	6.6	50	33	33
1936	1560	135	123	7.9	56	45	45
Total	5521	435	409	7.4	158	39	39

TABLE IV—CLASSIFICATION OF 409 CASES OF ACTIVE PULMONARY TUBERCULOSIS

	% According to Classification			Number According to Classification			Total
	Min.	Mod. Adv.	Far Adv.	Min.	Mod. Adv.	Far Adv.	
1934	30	50	12	47	68	19	154
1935	20	50	25	28	71	33	132
1936	20	50	30	25	59	39	123
Total	25	50	22	100	218	91	409

ing the three year period 1934-1936. We should like to point out here, however, that a great deal of what is done in this clinic has been accepted by the physicians on the same basis as other diagnostic procedures furnished by the Department of Health in other communicable diseases, such as the examination of a throat culture for the diagnosis of diphtheria, the blood for syphilis, etc.

The Mott Haven Consultation Chest Station for private physicians was opened

in June 1930. According to the Federal census of April 1, 1930, the Bronx had a resident population of 1,265,520, of which number 477,342 or thirty-eight per cent were foreign born. Considering predominant nationalities and racial groups, it is found that 45.28 per cent of the population were Jewish. A little more than one-half of the Jewish population were foreign born, chiefly from Eastern European countries. About fourteen per cent of the foreign population were Italian, seven per cent Irish, about eight per cent German, and five per cent English. Only one per cent of the total population were Negro.

Clinic Routine

Patients for this service are assigned appointments over the telephone through their physicians for Monday, Wednesday, and Friday. Upon admission the patient is given a thorough chest examination which includes a physical examination of the chest, fluoroscopy, and the taking of x-ray films, sputum examination, and in the case of children a tuberculin test.

Generally a report of the result is mailed to the physician within twenty-four hours following the patient's visit to the clinic. This report includes

- 1 A resume of all relevant data in the clinical history

- 2 An enumeration of all important physical findings

- 3 A complete description of the x-ray pathology of the chest.

- 4 A diagnosis and opinion

- 5 An offer to the physician of our facilities to help him in (a) the hospitalization of all cases needing such care, and (b) the examination of all contacts to diagnosed cases, with a report of the findings

No information or advice is given directly to the patient. All information regarding the results of the examination, after the final report has been sent to the referring physician, must come from him. It is definitely understood that after the investigation and the submission of the report, the further handling and supervision of the case is entirely the duty and responsibility of the family physician. Cases in which the patient

has made a change of doctors, the case records obtained for one physician are not available to a new physician without the consent of the original physician.

The popularity of this service among physicians, and the extent to which it is utilized by them is shown in Table I.

An examination of Table I shows that of the 1,677 Bronx physicians listed in the 1934 N Y State Medical Directory, 433 or 25.8 per cent availed themselves of the consultation service, of the 1,751 Bronx physicians listed in 1935, 487 or 27.8 per cent used the service, while of the 1,750 physicians accredited to the Bronx in 1936, 481 or another 27.8 per cent made use of the service. The popularity of the Chest Consultation Station is thus made evident. It is a reasonable assumption that such popularity could not develop except on a firm foundation of mutual confidence.

Results of Work

During the three year period 1934-1936, the total number of patients referred to the clinic by private physicians was 5,521. On the basis of Table I it will be seen that these patients were referred by 1,401 physicians, an average of four patients to a physician.

The volume of work for each year is indicated in Table II. It will be noted that 6,533 examinations of 5,521 individuals were necessary to arrive at a final diagnosis, a ratio of 1.2 examination per patient.

In the group examined 844 cases with tuberculous pulmonary lesions were revealed. Of this number 409 were classified as clinically active cases, while 435 were inactive cases.

It will be seen from Table III that of all the cases diagnosed active pulmonary tuberculosis 158 or thirty-nine per cent showed bacillary sputum on the first routine smear examination.

Classifying the 409 clinically active cases in accordance with the accepted classification of the National Tuberculosis Association, it is found that no more than twenty-five per cent of these were in the minimal stage, while the remaining already had the disease in an advanced stage (Table IV).

Of the 435 inactive cases, 114 showed

fibrocalcereous infiltration in the lung parenchyma, 145 had latent apical nodules, or fibrotic strands. Evidence of primary infection as manifested by Ghon foci and lymph node involvement, all showing calcium infiltration were found in 176 cases (Table V).

Notwithstanding the fact that 435 of the 844 tuberculous individuals were found to have the disease in a clinically inactive form, they nevertheless constitute an important group from the public health standpoint. Practically all of these cases represented arrested and latent lesions of the reinfection type which are prone to reactivation, while their discovery created a possibility for medical supervision which might conceivably prevent such an occurrence.

Clinically important lesions of nontuberculous etiology were found in considerable numbers. Among the 5,521 patients examined by us a significant proportion showed abnormal cardiac silhouettes, with secondary changes in the lungs in the form of interstitial fibrosis, brought about by chronic passive pulmonary congestion. In addition, many cases of nontuberculous pulmonary fibrosis due to preceding or concurrent suppurative processes were revealed, as well as ten cases of nodular fibrosis, the result of silica dust inhalation. The nontuberculous pulmonary lesions included besides thirty-three cases of bronchiectasis, thirty-four of unresolved pneumonia, fifteen tumors, eleven of aortic aneurysm, and four of pulmonary abscess.

The search for early tuberculosis among susceptible contacts to known sources of infection, offers a most promising field for successful case finding work.

It is in this group that we can work with the full expectation of finding early and unrecognized disease.

There were 1,336 contacts in the households of the 409 individuals who were found to have tuberculosis in a communicable form. Of this number 342 adults and 127 children were exposed in homes of "open" or positive sputum cases.

Table VI shows the total number of contacts, and the number of those exposed to positive sputum in their homes,

The results of our work among the contacts is shown in Table VII

It is of interest to note that as shown in Table VIII of the forty-six secondary cases of clinical tuberculosis discovered among the contacts, forty-three were found in adult contacts, and only three in children contacts. Evidently the reinfection or superinfection type of pulmonary tuberculosis is a disease predominantly and characteristically found in adults

Over sixty-three per cent of all known contacts to our diagnosed cases were examined by us, and among these we obtained a yield of five per cent of secondary cases. Such a significant yield may be ascribed to the fact clearly shown in Table VI, that thirty-five per cent of all the contacts were exposed in families of positive sputum cases

The importance of familial contact with open cases as a factor in the development of tuberculosis cannot be overemphasized. According to Pope,¹ persons so exposed show a tuberculosis incidence variously estimated at from five to ten times that of the general population. His experience in the examination of 150,000 children in the school clinics of Massachusetts showed that the incidence of pulmonary tuberculosis among grade school children with a history of family contact was eight times that in children without such history, and twenty times greater in high school student contacts, than in students with no contact history

We helped in the hospitalization of seventy-seven private physicians' patients whom we diagnosed active pulmonary tuberculosis. Since hospitalization of the tuberculous is one of our primary objectives, this was accomplished in nineteen per cent of the 409 cases diagnosed by us

An inquiry into the reason which caused the patient to desire a consultation with his physician brought out interesting sidelights on the problem of tuberculosis case finding (Table VIII)

Cough was given as the chief reason for the patient's visit to his physician in 278 instances, or in sixty-seven per cent of the cases. Hemoptysis was complained of 126 times, or in thirty per cent of the cases. Loss of weight and

chest pains were named 217 and 114 times respectively as the chief complaints. During 1936 when we had the largest number of far advanced cases, weight loss was more frequently complained of than in any of the preceding years

It is quite evident that the average individual does not consult his doctor before his disease is serious enough to cause troublesome or alarming symptoms. Since early tuberculosis rarely gives rise to serious symptoms, case finding efforts among clinic patients usually lead to the discovery of many cases in an advanced stage of the disease, and but few minimal cases. This has been the experience of all tuberculosis clinics and hospitals

DISCUSSION

The Mott Haven Consultation Chest Station constitutes an important part of the official set-up for tuberculosis control in a community with an estimated resident population of 1,441,532 (1936). During this year the official tuberculosis register showed a total of 2,800 cases, of which 1,123 were new cases of pulmonary tuberculosis added to the register during 1936. There was a total of 4,364 known cases of tuberculosis in the Borough during this year

The results of our case finding work in this clinic, serves to re-emphasize the difficulties connected with tuberculosis case finding work.

Clinical and pathological experience tell us (a) that the early tuberculous lesion does not usually give rise to cough, blood spitting, loss of weight, and night sweats, and (b) that when tuberculosis is the cause of marked disability for the relief of which the patient will seek advice from his physician, the disease is already in an advanced stage

P. P. McCain² of North Carolina Sanatorium in summarizing the problems involved in the various phases of the disease, points out quite correctly that in minimal tuberculosis, the earliest clinical form of the disease in the adult, there are no symptoms in most cases, and physical signs are either indefinite or entirely absent. Even in moderately advanced tuberculosis the symptoms may

be insignificant even when positive sputum is present

Our experience in the Consultation Chest Clinic based on the results of medical examinations of thousands of people, further corroborates and supplies factual data in support of these fundamental concepts in clinical tuberculosis

Practically every one of the patients who was found to have active tuberculosis consulted his doctor originally because of serious functional disturbances, manifested by troublesome, prolonged cough, or hemorrhage, chest pain or debility. Over seventy-five per cent of the 409 individuals diagnosed pulmonary tuberculosis were in an advanced stage, and more than one half of them had tubercle bacilli in their sputum

These findings are in general agreement with results of surveys by most investigators of this problem. The survey³ by the Council on Medical Education and Hospitals of the American Medical Association revealed 86.9 per cent of 66,261 tuberculosis patients in an advanced stage of the disease

Notwithstanding our failure to discover a greater percentage of cases of early tuberculosis, the Consultation Chest Station is proving itself an important method in tuberculosis case finding and control. This is shown not only in the discovery of the 409 previously unknown active cases of pulmonary tuberculosis, but also in the diagnosis of the 435 latent and arrested cases

The potential significance of latent pulmonary tuberculosis was studied by McPhedron and Opie.⁴ These authors show that latent tuberculous lesions of first infection type which on the roentgenogram appear as strand-like shadows representing fibrous tissue, may subsequently develop in thirty-five per cent of the cases into clinically manifest pulmonary tuberculosis. Latent apical lesions of the reinfection type, especially when located in the subclavicular region, is regarded by them of such important significance that the same treatment is advised as in the case of clinically manifested tuberculosis, until serial x-ray studies prove that the lesion is not progressive

The frequent reactivation of arrested lesions, and the need for careful medical

supervision of these, is a matter well-known to most clinicians and phthisiologists to require further discussion here

In the investigation of the 5,521 patients referred by the general practitioners for a chest examination because of chronic respiratory symptoms, we found 303 chronic, nontuberculous pulmonary conditions, which previously were unrecognized and untreated. In this way we made another important contribution to the improvement of the general state of community health in the Borough

If the Consultation Chest Station did nothing else but perform the fundamental services in tuberculosis control thus far

TABLE V—NONACTIVE TUBERCULOUS LESIONS FOUND IN 5,521 PATIENTS

	Arrested	Apical Scars Fibrotic Strands	Latent Primary	Total Inactive Cases
1934	35	32	49	116
1935	41	61	62	164
1936	38	52	65	155
Total	114	145	176	435

TABLE VI—CONTACTS TO DIAGNOSED CASES

	Total Contacts	Contacts to Positive Sputum Cases			
		Adults	Children	Total	%
1934	527	126	52	178	33
1935	472	97	35	132	28
1936	337	119	40	159	35
Total	1,336	342	127	469	35

TABLE VII—CASES OF ACTIVE PULMONARY TUBERCULOSIS FOUND IN 1336 CONTACTS

	Number of Contacts Examined				Diagnosed Active Tuberculosis			
	Adults	Children	Total	%	Adults	Children	%	%
1934	158	119	277	43	16	0	6	6
1935	160	119	279	59	12	3	5	5
1936	170	124	294	87	15	0	5	5
Total	488	362	850	63	43	3	5	5

TABLE VIII—CHIEF COMPLAINTS FOR WHICH 409 PATIENTS CONSULTED THEIR PHYSICIAN

	Cough		Hemoptysis		Loss of Weight		Chest Pain	
	No	%	No	%	No	%	No	%
1934	119	29	53	13	64	15	53	13
1935	107	26	42	10	70	17	46	10
1936	62	12	51	7	83	20	15	4
Total	278	67	126	30	217	52	114	27

discussed, it would amply prove its usefulness. But, it is in the results of our creditable work with the contact group of the active tuberculosis cases, that the great usefulness of the Service is making itself evident.

In studying a series of pulmonary cases, Zacks⁵ found that two out of three patients were exposed to infection in the home, and despite the fact that less than one half showed either symptoms or physical signs at the time of the diagnosis, twenty-four per cent were dead within five years.

Amberson⁶ who has had considerable experience in group survey work, estimates the percentage of new cases resulting from large surveys of population groups with the rapid paper film method at one and a half to two per cent of the number examined.

The findings of the forty-six secondary cases of early tuberculosis with no symptoms constitutes an important public health measure for combating tuberculosis, since prompt and proper treatment of early lesions surpasses any other means of restoring such patients to good health. It is besides the best means for preventing cavernous phthisis which is the source of most tuberculous infection.

The fact that 850 (sixty-three per cent) of the 1,336 contacts to the diagnosed cases were referred for examination, which in the case of children, includes tuberculin testing and x-raying, may serve as a measure of the effectiveness of our educational work concerning modern methods for the examination of contacts.

Summary and Conclusions

1 The Mott Haven Consultation Chest Station is proving itself a very

effective instrument for case finding work.

2 During the three year period, 1934-1936, 409 cases of active pulmonary tuberculosis, of which 158 had positive sputum, were found among 5,521 patients referred by private practitioners. This represents a yield of 7.4 per cent of new cases discovered by this method. In addition forty-six previously unknown secondary cases were discovered upon the examination of 850 household contacts in families of the 409 individuals originally diagnosed at this station.

3 Significant nontuberculous chronic pulmonary conditions were found in 303 individuals. These were unrecognized and untreated before they were diagnosed by means of the Chest Consultation Service.

4 For the purpose of control, we rendered the additional service of helping in the hospitalization of seventy-seven patients with active pulmonary tuberculosis in a communicable form, at the request of their private physicians.

5 The Consultation Chest Station by its friendly and helpful cooperative service to physicians is building up an efficient, constructive, and active joint relationship between the Health Department and the private physicians of the community for the purpose of better tuberculosis control and improved community health.

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References

- 1 Pope, Alton S. *Trans 31st Annual Meeting National Tuberc Assn* 1935
- 2 McCain, P. P. *Journal Lancet* 54 182, 1934
- 3 Survey of Tuberculosis Hosp and San in the U. S. *J. A. M. A.* 105 1865, 1935
- 4 McPhedron, Maurice and Opie, Eugene L. *Arch Int Med* 52 137, 1933
- 5 Zacks, D. *New Eng Jour Med* Sept 10 1931
- 6 Amberson, J. Burns Jr. *J. A. M. A.*, 107 256 1936

A Correction

Several editorial errors appeared in the article by Joseph Millett, B. S., M. D., which appeared on page 1743 of the October 15 issue of this JOURNAL.

1 The title of the article should have been "Sulphanilamide in Type 3 Pneumococcus Pneumonia."

2 (p 1743, right hand column, in para-

graph titled *Clinical course*) In the third line, "on the third day" should have been omitted.

3 (p 1744, second line, first paragraph, left hand column) "horse" should have been omitted.

We regret these errors and are glad to make this correction.

ILEOSTOMY IN FULMINATING ULCERATIVE COLITIS

Subsequent Closure and Recovery

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It is generally understood and accepted that uncomplicated chronic ulcerative colitis is a medical problem. Certain complications may make surgical intervention imperative. Rarely the initial onset of the disease is so devastating that ileostomy appears as the only procedure that can save the patient's life. In such instances ileostomy entails a very high mortality rate. It has also been shown that once an ileostomy opening has been established in this disease it is practically always permanent. The case we report is interesting because of the unusual severity of the initial attack. The victim was an individual in whom emergency ileostomy was performed and who was fortunate in that today, fourteen months after subsequent closure of the ileostomy he is subjectively and objectively free from the disease.

Case Report

The patient, a young man, age nineteen, who lived in northern New York State, was admitted by ambulance to the Medical Service of Syracuse University Hospital on December 5, 1934. He appeared desperately ill with obvious dehydration, anemia, and a mouth temperature of 103.2°F. The history obtained from an uncle was that following a mild "cold" he began to pass watery stools with abdominal cramps. The onset was twelve days prior to admission. The diarrhea increased in severity and soon profuse quantities of blood, pus, and foul smelling fecal material were passed. Some vomiting had been present for two or three days. His birthplace was Brazil, but he had lived in New York State for sixteen years. He had worked in a fruit store until his illness occurred.

Amebic dysentery was at once considered but repeated warm stool examinations revealed no ova or parasites. He was too ill for either sigmoidoscopic or roentgenographic examinations. Hemoglobin estimation was 122 gms and his erythrocytes numbered 3,800,000. Leukocytes numbered 35,100 and the polymorphonuclear cells comprised eighty-six per cent of the total.

On admission intravenous dextrose in saline was administered and he was twice

given 400 c c of whole blood on the succeeding two days. Emetine hydrochloride given for three days was of no apparent benefit. Paregoric, bismuth, kaolin, and other medicines did not check the diarrhea. Despite all measures he grew rapidly worse and the generalized abdominal tenderness became so marked that impending perforation of the colon was suspected. He was having thirty to forty bloody passages in twenty-four hours.

The Surgical Service was requested to see this patient with the view of considering ileostomy as a last resort. Inasmuch as the patient was losing blood per rectum almost as fast as it was given by transfusion, we felt that in order to save his life it was necessary to put the whole colon at rest by performing ileostomy.

On December 13, under general anesthesia a loop of ileum was brought up thru a lower right abdominal incision over a glass rod. This was at a point about six inches proximal to the ileocecal valve. The ileum appeared normal as did the appendix. The next day, the loop of ileum was opened by cautery, thus producing a double opening so that the bowel could be irrigated either proximally or distally as desired.

Following operation he was critically ill for three days. His temperature slowly fell and the general condition gradually improved. After five weeks he was having six to eight liquid passages daily through the ileostomy stoma and suffered only occasional abdominal distress. By January 21, 1935 he was on a suitable high caloric, low residue diet supplemented by iron and yeast. At the time of his hospital dismissal, February 6, the rectal discharges numbered eight to ten daily consisting of mucopurulent material and blood. He went home to rest and gain in strength.

He was first seen by one of us (J B) April 5, when he returned to the hospital for an examination. His rectal discharges numbered six to eight daily with some blood and although he was partially ambulatory he felt very weak and tired. Some left-sided abdominal cramps persisted especially noted in the morning. His weight was 129 pounds. The ileostomy was functioning satisfactorily.

Sigmoidoscopic examination showed the typical picture of the so-called idiopathic,

or, as Bargaen terms it, bacterial chronic ulcerative colitis. The mucosa was visibly granular and finely ulcerated for a distance of twenty-six cm. There was moderate contraction of the lumen and the entire mucosa bled easily on slight trauma. Cultures were taken from the ulcer bases into brain broth media and the laboratory reported a heavy growth of the diplostreptococcus of Bargaen.

He was at once placed upon the regime that has been used at the Mayo Clinic, namely adequate diet, antilucerative colitis serum intramuscularly, after fourteen days an autogenous vaccine was administered every five days. The response was striking. Rectal discharges diminished and after four weeks practically no blood was noted. His weight increased as did his appetite and in August, four months after this attempt at specific therapy he appeared much improved.

The vaccine was given periodically until December 14, when he re-entered the hospital because the proximal loop of ileum was evaginating thru the ileostomy opening. When on his feet for very long this piece of intestine protruded about eight inches causing pain and some bleeding at times. Sigmoidoscopic examination showed the rectum and sigmoid to be practically healed although there was some scarring and thickening of the walls. The lumen appeared ample in diameter and no evidence of fresh or secondary infection was present. The skin about the ileostomy opening was sore and irritated. The patient was kept in bed and aluminum paste applied to the skin. On December 19, a right angle clamp was applied to the two adjacent walls of the ileostomy openings. This was tightened each day and finally it sloughed loose December 29. After that he began to pass part of his feces per rectum. The patient desired to go home and he was discharged January 15, 1936.

He was readmitted February 3. His abdomen was scaphoid. The skin about the wound was well-healed and in good condition.

For many weeks he had been requesting that closure of the ileostomy stoma be attempted although the dangers were explained to him. However, since some plastic type of operation was needed and because the distal colon appeared practically normal it was felt that after suitable preparation closure might be attempted. Preparation consisted of nonresidue diet, saline enemas, transfusions of whole blood, and bed rest. Roentgenograms of the colon showed slight narrowing distal to the splenic flexure but revealed neither active infection, polyps nor

strictures. Ulcerative colitis serum was given intramuscularly twice daily for five days.

On February 5, under general anesthesia an incision was made around the ileostomy opening, the bowel was dissected away from the abdominal wall, and freed from the peritoneum. The edges of the ileum were trimmed back to fresh tissue and then sutured. Two layers of chromic #0 on atraumatic needles and one layer of interrupted silk were used. The bowel was returned into the abdominal cavity, peritoneum and fascia closed, and the remainder of the wound left wide open. A transfusion was administered postoperatively and the specific serum continued twice daily. Convalescence although rather slow was uneventful and he was dismissed from the hospital February 26. The wound healed by granulation, and has remained firm and well-healed.

One month later he reported that his stools numbered three or four daily with no visible blood. There was no abdominal distress. He was advised to continue receiving the vaccine every three or four months for periods of six weeks.

He was last seen by us April 12, 1937 at which time he weighed 154 pounds. His color was good and he stated that he was free from any bowel symptoms. Sigmoidoscopic examination showed a normal rectum and sigmoid except for slight thickening of the walls. He was again advised to receive the vaccine periodically and to report back every six months.

Comment

This case illustrates the occasional severity of ulcerative colitis and the need for cooperation between internist, surgeon, and proctologist in properly treating such patients. Bargaen, Brown and Rankin¹ show conclusively that ileostomy is rarely indicated in this disease and they state that once established it should be permanent. With these general conclusions we agree and we present this report to show that exceptions to these rules may arise. We feel that ileostomy saved this patient's life, but we also feel that the medical measures as previously outlined by Bargaen and his coworkers were the ultimate deciding factor in the restoration to health.

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Reference

1 Bargaen J A, Brown P W, and Rankin F W
Surg Gynec and Obst 55 196, 1932

Preventive Medicine

Medicodental Cooperation in Preventive Medicine

CHARLES H. GOODRICH, M.D., Brooklyn

Presidential Address

"The human body is a complete organism with the function of each part dependent on that of another or others" (Rushing—*Tri-State Med Jnl*, Jan 1936)

"Any physician (and/or dentist) should be able to think of the whole patient" (C. H. Mayo, *Mouth Health Quarterly* 1934-35, April 1935, p. 6)

* * *

Licensed to practice medicine in the State just before the turn of the century we were not then conscious of any cooperation between physicians and dentists. Of oral diagnosis and surgery, physicians and surgeons knew little as compared with now. Dentists knew little and practiced less asepsis. A surgeon once introduced our first Brooklyn dentist as "The only one in Brooklyn who boils his instruments." At about this time we saw extractions by expert specialists using instruments selected from the dusty shelves of an open case. Equally asepsis-scorning were some medical specialists. A famous ophthalmologist conducted clinics in New York and ridiculed asepsis and antiseptics as taught us by our enthusiastic surgeons. He would say, "Now a drop of antiseptics (with a well accented wink)—a little boric acid in the eye—then rub your knife on your kerchief—friction is the best sterilizer—then insert the knife into the eye muscle—so!"

Of some foul mouths sparsely inhabited by broken, jagged stumps in pus-filled sockets the physician might say "Better have those rotten things out so that you will not swallow that pus." Or if a dentist discovered a benign or malignant epulis he might refer his patient to a surgeon for its removal. That, however inadequately, affords an illustration of our general recollection of medicodental cooperation as practiced before the turn of the century. It seems conservative to

declare that then we were two separate but not unsympathetic professions, for common knowledge of anatomy and physiology, and ambitions to relieve suffering brought us loosely together. The laboratories of bacteriology and biochemistry were in their infancy and knowledge remained sketchy and elementary. The Roentgen-ray was unknown to the rank and file of both professions. Pathology was more competent but still in an adolescent period. Diagnosis was largely based on clinical observation of the patient's anatomy and physiology, with the help of urinalyses, blood-counts, and tissue sections *after* treatment, for biopsy was not then practiced.

The relation of diet to disease was understood partially—perhaps the difference with our present knowledge is only in degree—but how diet influenced dental conditions was rarely if ever considered by the *medical* practitioner. Many a handsome mouthful of teeth was ruined by the physician's grand good medicine without a thought as to the deterrent influence upon the future health of the patient—when neutralizing influences could well have been applied. And, if we mistake not, dentists knew little of dietetics or practiced their knowledge meagerly. Vitamins were unknown. Calories were mentioned occasionally but rarely counted. Haig and Fagge, eminent Englishmen, preached that animal flesh and acid fruits were largely the cause of rheumatism and allied disorders. Lack of cooperation in those days was not due to the character of the men or to their grasp of the knowledge of the day, but to the lack of facilities now at our command.

Today Medicodental cooperation in the treatment of disease is well-established. Cooperation in treatment is so frequent and cordial that we might almost be warranted in advertising the fact were professional advertising ethical and permissible. This has been evolved with the extended use of bac-

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teriology, biochemistry, biopsy, pathology, and allied research by both professions. The increase of complete examinations, including the mouth, by physicians has had its influence. In the earlier days major emphasis was placed upon treatment. Gradually prevention has come to a prominent position. Both dentists and general surgeons have developed more technical skill in operations upon the mouth until an oral surgeon may be a doctor of medicine or a doctor of dental surgery, and in some instances both.

Two professions formerly separated have found a common basis for understanding and mutual appreciation. This changed attitude has progressed so well due to the efforts of far-seeing leaders in both groups who have sounded that spiritual altruistic note "The welfare of the people." Increase in understanding diet in relation to dental conditions, the discovery of the effects of vitamin values upon the entire body, and the expanding conception of the importance of focal infection have been patent influences.

Preventive medicine comprises a large field of effort. Unprogressive thinking would limit its application to those specific measures known to prevent certain diseases. These need not be emphasized but merely mentioned in passing. Physician and dentist alike are interested in prevention and can ethically encourage the timely use of every technic to that end, and when occasion arises, may serve each other as well as the patient.

The importance of nutrition in the prevention of disease must be considered from the date of birth or within two or three days afterward. Indeed, with adequate laboratory facilities available, it may often begin before birth. In very early life the development of good tissues, including teeth, can be provided with very simple study of our little patient. Here, as later, vitamins which are evidently lacking can be supplied. Well-balanced diet can be safely provided for the very young as well as all succeeding ages and can be regarded as a measure of disease prevention. Take for instance the consideration of calcium deficiency, or abnormal blood-cholesterol, or blood-sugar, or urea-nitrogen, or of abnormalities in blood-counts, without apparent disease. Evident nutritional deficiencies in the teeth observed by the dentist can be the base of joint efforts by physician and dentist. Reasons for altered feeding of the child or adult may be

discovered by the dentist in the gums or mucous membranes of the mouth which demand cooperation for fulfilling effective preventive measures. The physician may early discern defective tooth development, unregarded by parents, which requires the dentist's cooperation to competently prevent later disease.

Along with this careful biochemical consideration of foods there often comes the need of observing mechanical difficulties which involve proper food-cutting and grinding. That this orthodontic angle requires earlier attention than it often receives is undoubted. Gradual and increasing deficiencies of nutrition can thus be avoided. You may prevent gastrointestinal irritation by insufficiently divided foods, as well as avoiding advanced malocclusions, teeth crowding, and other deformities. These frequently cause self-consciousness, various mental complexes and inhibitions. The physician should often discover these matters and can render magnificent service by insisting upon proper dental regulation.

This nutrition problem is so important in preventive medicine and dentistry that we should jointly dedicate some fraction of our time to adequate and accurate study of foods, their values and resultant health influence, avoiding those occasional noisy enthusiasms, the value of which are soon disproven. History tells us that in the seventh decade of the last century an eminent physician declared that cancer, at least of the stomach and intestines, was caused by the eating of tomatoes. For some years his dictum, founded on superficial and insufficient data, was accepted. The brilliant spectacle of one hundred and fifty tomato juice cocktails which we beheld on a splendid dinner table recently shows one change in knowledge of food values.

The prevention of caries of the teeth is an important subject for physician and dentist. In 1530 a book on teeth was published which warned people that to preserve teeth "avoid use of foodstuffs which are sweet and easily retained in dental spaces" (Wallace). This was curiously prophetic for without much knowledge of chemistry of foods, certainly none of lactic acid fermentation, and with no knowledge of modern bacteriology of the mouth, this ancient writer had hit upon one of the true factors now established as a basic cause of caries in civilized moderns, namely, carbohydrates.

Here curiously the same dietetic etiology has been determined to be a factor in the chronic forms of arthritis. Heredity in both instances is largely discarded. Family habits of diet and other influences are at fault rather than physical inheritance, if we except syphilitic and tubercular families. In dental examinations of multitudes of school children in recent years it has been found that "the better the school the worse the teeth." Thus it has become axiomatic that caries is a luxury disease as well as a deficiency disease (Wallace). In any event, physicians should examine mouths for caries and gum conditions. Here, small but powerful diagnostic lights sharply increase our usefulness. Dentists and physicians should study applied dietetics and work together along this line of prevention. In the meantime, we must all acquire knowledge of the chemical and bacteriological processes by which carbohydrates are converted into acids which produce caries.

Parallel accompaniments to dietetics are certain widely used poisons such as coffee, tea, alcohol, and tobacco. How easy it is for people to habituate themselves to excessive daily consumption of these substances is too well-known to discuss here except to remark that we are derelict in our duty if we do not reveal to our patients the advantage of abstinence or at least extreme moderation in their use.

There is a vast field for preventive medicine in the study of other poisons easily absorbed in various occupations and in daily domestic life.

Latent focal infections of teeth and gums are known to be potential causes of disease. We realize that dentists are not unanimous in their opinions regarding devitalized teeth as potential or definite dangers to health, and we must await their unanimity before medical men can vote as one. However, it is probably a fact that latent focal infections lurk in the mouths of many persons who seem to be healthy today who, in the not too distant future, will be diseased as a result thereof. Here, indeed, is a vast field for cooperation. Here, physicians can help by requiring dental x-ray films in every periodic health examination and wherever any minor disorder gives reason for such recommendation. Haden says "Too often physicians depend entirely on radiographic findings." Here dentists can help by always making complete films of both jaws when

only one or two teeth are under suspicion, and for otherwise thoroughly testing for devitalized teeth in various ways. Then, off to the physician with the films and duplicate reports for his records. Only by the adoption of these practices can consistent prevention of disease be fully accomplished. To realize how much can be done along this line we have only to scan the bacteriologically proven records of the association of abscessed teeth and pyorrhea alveolaris with various diseases.

Haden, in his work on dental infection and systemic disease, recounts proved cases with identical or like lesions in rabbits inoculated with culture from tooth sockets in thirty-five cases.

Few physicians realize the dangers of infection from tooth or filling fragments left in jaws after tooth extraction. Both dentists and physicians should assure the complete elimination of this cause of potential infection by careful followup examinations.

Oral hygiene as practiced and taught by the accomplished dentist of today is an important phase of preventive medicine. The tonsils are near the teeth. We should be anxious to have the dentist's examination discover infected tonsils. His transillumination or his olfactory sense may locate a foul sinusitis, draining perhaps, but a potential sewer of infection.

In dealing with all forms of latent focal infection our cooperation will not be complete without the help of the bacteriologist and pathologist and biochemist—really a quintuplet cooperation.

Annual or semiannual periodic health examinations should be constantly urged upon patients by both physicians and dentists, these are flanking attacks at a time when patients think they "do not need examinations." For Lo, they feel well! And if they do capitulate, we must be ready with schedules, and record blanks and equipment, material and mental, to do thorough work, with no sins of omission. Many years ago we listened to a remarkable sermon by a little gray bearded old clergyman, as old as most of the members of the Supreme Court. His main point was that our sins of commission in this life were insignificant as compared with our sins of omission. He likened the sins of commission unto an anthill as compared with the highest mountain of the Himalayas.

representing our sins of omission Perhaps our sins of omission in preventive medicine are as great. On the discussion of methods of such examinations we could profitably spend much time together When this type of examination is in popular demand, many will spend half of their time upon it, and some will specialize exclusively in it. It will become the keystone of preventive medicine in the individual We cannot effectively and completely practice this without each other

In regard to cooperation in research we refer you to Dean LeRoy Miner's eloquent and comprehensive assertion "It (research) is constantly crossing the lines of departmental and professional knowledge and as fast as it expands draws men of different faculties and diverse sections of science into closer cooperation" Cooperation in research can be invaluable, for there are problems of prevention that can only be solved by the merging of interests in this work Take the relationship of duodenal ulcer to focal infection from teeth, tonsils, sinuses, and dermatological lesions What more fruitful field? And, there are a hundred such waiting

It seems wise and essential that we live together administratively in our search for the great truths of science. American medicine is organized with the county society as the unit and districts composed of several units in the State Society Dental organizations are similarly set up Why not unite at our centers of thought and discussion? If county or district medical and dental societies could join their libraries together, better service at less cost would be assured and each could have available the works of the other, and avoid much duplication (Witness Dr Weinberger's magnificent work for the First District Dental Society) If society offices and meeting rooms were under one roof we would meet oftener and learn more of each other's work Dwelling together officially would facilitate our common effort to secure health legislation that is desirable for the people of the State and to defeat the undesirable

We have learned to think in terms of the entire State Our horizon grows and expands as our work and duties expand Therefore, it is surely true that

if all of both professions devote a little more time to the professional work that deals with the large field, we shall also grow to think more faithfully and effectively for the individual in preventive medicine

We have considered nutrition, dietetics, mechanics of mastication, certain poisons, caries, focal infection, research, and the uniting of administrative offices and libraries

Thus, we have indicated features of our various professional works in which cooperation in preventive medicine and dentistry will always be of special value to the public We say "special value" What we mean is more nearly complete values in diagnosis and prophylaxis As golf teams, we approach the green with common objectives Let stymies be ruled out. We are playing as a team Our score counts for everybody concerned Let strategy always be unselfish Thus we will inspire and deserve the confidence of our people and, better still, we will prevent disease Let us invariably adopt the superlative ethics and courtesy of both professions and thus render maximum partnership service in the preservation of good health which is preventive medicine Give us twenty years of this and the incidence of and mortality from insidious focal infections and the so-called degenerative diseases will largely decrease Comfortable life will be prolonged and once more will be demonstrated the value of cooperation by idealistic scientists

When we have cooperatively told the people what to do to preserve good health, the next step is to induce them to do it. This will require some brilliant lady or gentleman to present another chapter on cooperation If we cooperate effectively for a long enough period we may inspire even that superlative degree of confidence exhibited by the wife of a carpenter who fell from a scaffold The carpenter was ambulated to a hospital The hastily summoned wife sat tearfully on one side of the bed, the house surgeon stood on the other, each holding a hand of the patient. After a while the house surgeon said, "I am very sorry, Madam, but your husband is dead" The supposed corpse spoke up saying, "No, I ain't either" Then the wife said "Lie still Tom, the Doctor knows better than you do!"

We will repeat the two quotations uttered at the beginning

1 "The human body is a complete organism with the function of each part dependent on that of another or others"

2 "Any physician or dentist, or any

physician and dentist, should be able to think of the whole patient"

May we add a third? The great Theodore Roosevelt once said—"Together is the grandest word in the English Language"

Medicodental Cooperation in General and Special Practice

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The necessity and importance of medicodental cooperation is conceded by every progressive physician and dentist. However, there are still groups of both professions who firmly believe that every dentist should be a graduate of a medical school. Such a physician-dentist, they assume, would understand the many and various medicodental problems and be able to solve and treat them, reducing to a minimum the necessity of cooperation. I shall take quite a few moments to prove the impossibility and impracticability of the physician-dentist, although it already has been proven by experience in those European countries, in which apparently only a physician is permitted by law to practice dentistry. It may be worth mentioning at this time that in all those countries there exists also the dental technician, who by law is granted the privilege to practice dentistry in nearly the same way as the physician and has as a rule a much better income—and maybe deserves it. The European dental education is far below the American—the European dentist must complete the last two years in an American dental school before being admitted to the New York State Board Examination.

Let us now return to the American system of medical and dental education. Before entering a medical school the student must have completed a four year college course. I personally do not agree and have previously called this college prerequisite the great American economic waste, being of the opinion that a well-arranged high school curriculum should suffice and that the student when entering the professional school should be about eighteen years of age. At any rate,

in accordance with the present thoughts one must figure on four years of college, four years of medical school, at least one year internship, and a minimum of three years in general practice. In other words, the physician who expects to specialize will be twenty-nine years of age. Will he then be well-prepared to give an authoritative opinion on diet, cardiac or rheumatic conditions, nervous disturbances, digestive disorders? And you notice probably I have not mentioned the more commonly recognized specialties like rhinology, otology, ophthalmology, dermatology, etc. But let us assume he were able to do so, he is now twenty-nine years old, his hands cannot easily, if at all, be trained to do mechanical work, which after all comprises a large part of dental practice. Furthermore, two years would not suffice and three years surely are necessary for his dental studies. He is now thirty-two years old. Still he is not efficient as a dentist, he needs another three years at least of this special dental practice before he is admitted to a society of medical specialists in accordance with the laws made by every society of medical specialists. And what a poor specimen of a physician he will make beginning the practice of his specialty when he is thirty-five years of age. You may say now, let him be a stomatologist—whatever that may mean—and have a mechanic attend to the dental work! That is exactly what happened in these European countries. The dentists became dependent upon the mechanics, the mechanics increased in numbers and became powerful enough to have laws passed to permit them to practice dentistry. It is true that in some places they will not get new licenses, but that will make

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it still worse, because then the people will only receive very, very little good dental care

The best way out of this dilemma is not the physician-dentist, but more medical education of the dental student and—what has been more neglected—more dental education for the medical student. What a disaster occurred in 1910 when Doctor Tyson—the late Professor of Medicine at the University of Pennsylvania—included among the ten questions of the final examination in medicine for the junior class one about the eruption of the temporary teeth! More than fifty per cent did not pass. Fortunately for me I had graduated from the dental school of the University the previous year and this very same question came as a godsend to me—I passed. The joint Medico-Dental Committee of Greater New York has done very commendable work in furthering these studies during the undergraduate work of the two professions and in many other ways. The committee deserves the wholehearted support of organized medicine and dentistry.

However, even this improved education alone will not effect a closer cooperation unless the students will learn to know and understand each other from the very beginning. The two students must meet as much as possible in the laboratories, at conferences, in the operating room, in the wards, and—equally important—socially. After graduation the period of internship will establish closer relations, which will finally ripen into useful cooperation through which, we know the general public will in the end receive the health service it expects and deserves.

It is true that medicodental meetings play an important role in fostering better relations. Also individual efforts by special groups will have to be made. I may mention at this time the New York Institute of Clinical Oral Pathology, whose membership consists of general practitioners and specialists of both professions interested in the clinical aspect of oral pathology. At monthly conferences the presentation of cases and a paper of practical clinical value keep the audience continuously well-informed. Through the medium of a new journal, the *Archives of Clinical Oral Pathology*, such knowledge is disseminated for the benefit of those living at distant parts. Similar efforts should be encouraged.

The cooperation is mostly neglected by the two general practitioners, although it is

most important from the preventive standpoint in that instance. I have shown above that neither practitioner could be sufficiently educated to examine the other's field. Therefore, no examination of a patient can be complete without it. The physician, when seeing his patient the first time will have to refer him to the dentist for the study of the mouth. It is not only the tongue, mucous membranes, and a superficial glance at the teeth and gingivae, but the careful investigation of these structures aided by x-ray pictures of jaws and teeth and the pulp test, etc. that will permit the rendering of an intelligent and comprehensive report to his medical confrere. The dentist is in a similar position. Even if the patient is apparently entirely well, he should inquire as to when he saw his physician last. Assuming he did not visit him for some time, the dentist must insist that he do so, only take care of emergencies and refuse treatment thereafter unless he complies with this request. This means cooperation for the purpose of fostering preventive medicine and dentistry through periodic health examinations. Reporting to each other in every case must be everyday practice.

There is, however, one difficulty. We have good and bad everywhere and also among physicians and dentists. The physician can more easily be looked up, e.g., in the Medical Directory of New York, New Jersey, and Connecticut. Medical school, hospital appointments, society membership give one a fair idea of his standing. The dental profession has not such a book. The smaller membership and therefore finances will not permit their own publication. For some years I have tried to interest a few influential members of the New York State Medical Society for the purpose of joining with the official dental society in the publication of an annual volume for both professions and I hope for its realization. Naturally the information gained by this means is not entirely reliable, for the simple reason that we still have political and social appointments to hospitals. Furthermore, the judgment of the authorities may be poor. For this reason I would suggest consulting local official societies, from whom additional information about the applicant for a hospital position could be secured. No physician or dentist must be appointed unless he is a member of his official society.

I shall take the liberty of adding at this

time a thought regarding essayists for society meetings. Here again—unless the man is really well-known—an invitation should only be extended after a confidential communication with his local official group. This does not, however, guarantee the success of the meeting, but insures the standing of the lecturer.

Previously the fact was mentioned that the two practitioners must assist each other to complete an examination, particularly of a new patient. In addition there are two large groups of diseases, in the study of which neglect of the above is inexcusable—focal infection and nervous disturbances. Although in my opinion oral foci are not as frequently responsible for systemic disturbances as some are attempting to convince us, still our lack of knowledge stimulates our desire to continue our study and leave no stone unturned that may throw additional light on this subject. Teeth, which from the dental standpoint are of no value or a menace, must naturally be removed in the manner indicated by general surgical principles. Our great concern, however, are those members of the masticatory apparatus, which, although their pulps have been removed and their root canals filled in accordance with accepted technic, might still be a focal source and then must be sacrificed, in spite of the fact that only too often this procedure does not in the least affect the general ailment. The physician and dentist must meet here on an equal basis, each state their own case, and decide the course of treatment in accordance with the importance of the facts presented.

Nervous disturbances are another source of deep concern. One of them, trifacial neuralgia, does not belong to this group because its etiology is not known and because as far as is known at present is never relieved by oral operations or dental treatment. As long as there may always be a doubt regarding the diagnosis, the mouth must be well-examined and treated. Facial pains may originate from a dental disturbance and do also require a thorough study of this region.

A large number of the cases belonging to the second group will present themselves in the dental office first and it will be the duty of the dentist to inform the family physician and consult him. Thereafter, they may decide on a specialist and so not only divide the responsibility, but in addition and of greater importance give the patient the bene-

fit of a practitioner equipped with special knowledge and experience.

At present the oral surgeon, who in most instances has devoted some additional time to medical studies, occupies the important position of consultant in his field. The continuously increasing number of medical subjects in the dental curriculum, the students' admission to ward rounds etc. and especially the dental internship, will in the end place the general dental practitioner in a similar position.

While speaking of the oral surgeon and his medical training, I cannot help but think of the opinion so often expressed by well-meaning dentists, that the dental practitioner should have a medical degree. That such a thought must be considered erroneous I hope to have shown sufficiently in a previous paragraph. Let me repeat, however, that a medical degree as such and even including the medical license is meaningless, it is only a minimum requirement of the law, and the studies leading to the degree constitute a foundation only to which, with the aid of an internship, a hospital appointment and a number of years of general practice, enough practical application, knowledge and experience is added, to entitle one to be called and considered a physician. Then you justly also deserve the social position, which goes with it. And the dentist is as important in his field and deserving of the same social standing. It is up to him as well as the physician to acquire this admission not by their degrees, but rather through their professional achievements, purely professional as well as civic.

As matters stand at present the greatest need is more dental information for the medical student and physician. He must discontinue to look upon his cooperator in health service as only a dentist. Important progressive steps have been taken and much has been accomplished by the dental profession, too much to enumerate at this time. I am certain that their research is well-recognized and utilized by medical workers. The opinion might be created that the fault lies with the medical profession alone, which is not the case. The dentists, however, have been concentrating their efforts for a number of years to increase preliminary requirements, adding medical subjects to the curriculum, stressing the importance of dental internship and hospital appointments with the intention to increase their value and

efficiency as guardians of dental health and their ability to cooperate with their medical confreres

The hospital situation must not be overlooked. A dental department must be recognized. The American College of Surgeons cannot be too severely criticized for entirely neglecting this phase. Not a single hospital should be recognized unless it has a dental department. Dentists must be put on every important general committee, not forgetting the medical board. Interference with purely dental affairs shows lack of understanding of its importance and a meddlesome and petty mind. The usual mistake of the medical board or the responsible body is to appoint a specialist—in most cases an oral surgeon—to head this group. It must be a general dental practitioner. Oral Surgery is only one of the subdivisions and a good oral surgeon knows very little about general dentistry, which is most important. On account of the different position this profession occupies, the dental department must be governed by a special board (the dental board) which fully cooperates with the medical board. Arrangements as outlined above will secure mutual understanding and collaboration and give the patients the best care.

Before closing I wish to refer to one other matter which I believe should receive very prompt attention. I am referring to the question of the expert witness. Very recently I expressed my thoughts¹⁶ on this subject and feel, therefore, at liberty to cite verbatim.

Recently I was requested to testify in a malpractice suit and was again astounded at conditions prevailing in regard to the so-called expert witness. Naturally, as far as the witness who testifies under a subpoena is concerned, nothing can be done. Either he knows his work or he does not. An example of the peculiar situations that may arise was shown some time ago, when such a witness maintained that an osteomyelitis of a year and a half standing might have been avoided by placing a drain into the socket of the tooth which had been removed by the defendant, although it is quite evident that this same witness, by performing two radical operations in the course of treatment of the said case of osteomyelitis, was at least contributing to the seriousness of the case, and, in my opinion, should have been the defendant.

In the suit in which I acted as an expert witness for the defendant, the plaintiff's attorney had procured two expert witnesses—one a physician who had been graduated about 1890 and who claimed that he was quite familiar

with conditions about the mouth, having operated on harelip and cleft palate, cysts, etc. This physician expressed an allegedly expert opinion in regard to the extraction of teeth, although he admitted that he had never removed a single tooth. The other witness was a dentist who had been graduated within comparatively recent years, and who, among other peculiar statements, assured the court that he never does anything for a tooth without first taking an x-ray. Such procedure, besides not being the customary accepted practice in this vicinity, may well be doubted as to its veracity.

I am wondering how much good college requirements preliminary to dental education have accomplished, and whether a good character is not of equal importance. I am only too glad to take this opportunity to state that I, for one, feel that in going to court as an expert witness, I do so not for the purpose of testifying for or against the practitioner or patient, but to tell the truth as I see it, to the best of my ability.

We must admit that most suits are instituted against specialists, oral surgeons, exodontists, orthodontists and so on, and that many practitioners enter special practice without sufficient preparation. If they are guilty of malpractice or, as far as that is concerned, no matter who is guilty of malpractice, he cannot expect the cooperation and support of an honest practitioner.

To remedy the conditions discussed above, I recommended some time ago in my address as the incoming president of the First District Dental Society that we "consider the appointment of court experts. Men beyond reproach should be elected or appointed by the organized dental profession and approved by the courts.

The duty of such experts shall be not only to protect professional men against malicious exploitation on the part of patients, but also to act in the interest of patients if such occasions arise. The cooperation of the medical profession to accomplish this end is advisable."

So much for the expert witness.

Let me repeat we need more medical and dental information for the respective students, better acquaintance of the two and better understanding of both interns followed by hearty cooperation of the practitioners. No one can doubt that this will give each steadily increasing knowledge of their fields and improve health service. Unless we violate these principles by public criticism of the practitioners, it will all increase public confidence and result in the gradual disappearance of the many different cults. The dentist will discontinue hunting for a medical degree just for the degree's sake, which in itself has no advantage as far as the improvement of health service is concerned.

With reapproachment and honest understanding, mutual respect will be finally estab-

lished and physician and dentist meet on an equal basis

Collateral Reading

1 The duties of an oral surgeon towards his patients and fellow practitioners *Dental Outlook*, 9 177, 1922

2 The value of the dental hygienist to the oral surgeon *Internat J Orthodontia, Oral Surg & Radiog*, 10 42, 1924

3 Oral surgery and its relation to medicine and medical specialties, *Ibid*, 11 953, 1925

4 Thoughts on dental education *Dental Cosmos*, 69 276, 1927

5 A plea for cooperation between the medical and dental practitioner *NEW YORK STATE J MED*, 28 205, 1928

6 The dental surgeon as diagnostician and consultant *Dental Mag & Oral Topica*, 46 1019, 1929

7 The specialist in oral surgery *Bull Kings Coun*

t's Dent Soc 1 129, 1930

8 The field of the dental hygienist and its future

J Dent, Hyg A, N Y, 2 no 10, 3-6, Oct. 1931

9 Oral surgery of interest to the medical and dental practitioner *NEW YORK STATE J MED*, 32 383, 1932

10 What is Oral Surgery? *J Dent Research*, 13 129, 1933

11 A practical discussion of the importance of medicodental cooperation *NEW YORK STATE J MED*, 34 970, 1934

12 The dentist in the hospital *The NJ State Dental Journal*, 5 45, 1935

13 Practical Consideration of the General Practitioner's Oral Surgical Problems *The NY Journal of Dentistry*, 6 152, 1936

14 The examination of the patient. *Dental Items of Interest*, 58 559, 1936

15 The Expert Witness *The NY Journal of Dentistry*, 7 181, 1937

16 *Ibid* 3 125, 1933

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D, DR PH, *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

How We Die

He is old, but well built

Begins by having difficulties with one function, then another. Enlargement of the prostate. Inflammation of this gland, then of another part of the body. Disturbances of micturition. Treatment improves the condition, but not fully. From time to time new attacks. Faulty self-treatment brings fever. Weakness ensues. Appetite lags. Loss of weight.

Difficulty to walk. Less outdoors. Pallor, weakness.

As muscle tissue dwindles, any movement becomes painful. Forgotten troubles show up again.

Then there is the mental state. Fear, anxiety. Beginning to see the end. Not enjoying his old time smoking habit and giving it up.

Discontinues reading, both books and newspapers—he, an assiduous reader. Still intelligent, still joking, but less and at longer intervals.

Getting very cranky, more than ever before. Nobody can please him. Ungrateful, exacting, he is torturing his caretakers unnecessarily by constant orders impossible to be fulfilled.

Sleeps badly, by fits, is never rested. His pains in various places become worse—and they are constant. Treatment relieves but little now.

Signs of mental senility, in this case

complicated by symptoms which point to *cerebral arteriosclerosis*. At first there are moments of absent-mindedness, brief, but quite evident. Patient would speak and then, suddenly immobile and with open, staring eyes, would interrupt himself in the middle of a sentence or a smile and would continue the conversation within a second or a few seconds. Later there are real seizures. Loss of consciousness, falling to the floor. Once, when alone in the house, falling on the hot radiator and only a day or two later complaining of a pain in the back. At the examination a large burn of the skin of one side of the dorsal region is seen. Often incoherent speech mixed with words showing that patient is tired of life and calling death as a savior. Nothing epileptoid about these attacks.

At last he is listless, lies in bed motionless, has lost self-control, is unclean and indifferent about it.

When I call he opens his eyes, recognizes me, whines, asks for a change of position. Eats almost nothing.

Ceases to be ashamed. Undressed before a woman nurse, which he never permitted before.

Heart murmur for the first time. Swelling of legs, face, which subsides by treatment. Then definite symptoms of kidney trouble, new to this patient.

A few days later a flicker of life—like a

supreme effort. He wants, of all things, ice-cream, which is given to him. He jokes—with brightness, although finding the words with difficulty.

An hour later again apathetic. Tries to say something, impossible. Half words, confused sentences. Is astonished not to be able to pronounce something familiar. Smiles at his inability. Finds it ridiculous. Somnolence. Hard to arouse him and to have him call me by name, which is only half-spoken, with lips not fully closed and without energy.

Suddenly a movement, rebellion, desire to go out, to walk away, to go back to old life, tumbling out of bed, exhausted.

Replaced, he is evidently tortured by vague unpleasant thoughts. I talk to him. We are alone. The rest of the family are asleep in other rooms. The night is silent.

I speak in a monotonous voice and tell him about the happy future of his children and about many other good things. I give details, all invented. Sometimes his face is a blank, at other times his mouth tries to smile, he opens his eyes with a certain amount of interest and visible gratitude.

Then he falls definitely asleep, and sleeps until he ceases to breathe. His heart stops, his pupils fail to react. Life ebbs, leaks away.

Ideas, associations of ideas, fine threads of ideas, all have ceased to exist. A moment ago they were here, no matter how feeble, now they are not, as if they had never been. Previously, I could wake them, at least partly. Now, impossible. All he has learned in a long lifetime, all has perished in a second with him.

The end

He Is in the Market

He was very tall, very slim and very pale. His eyes were set deep in the orbits and his frontal bones, covered with a glistening white skin without wrinkles and bald to the top of the parietals, looked like portions of a well prepared skull for anatomical study. Before he began to speak I was wondering how a skeletal individual of this sort can move and whether he was really going to open his mouth.

"I have stomach trouble," he said, "but today I am not coming for that. I want to ask you a favor."

I at once took out my pocketbook. I was used to that. In spite of my own poverty and also in spite of my adverse opinion about charity I rarely turned anyone away.

But he stopped me.

"No, it is not that. I cannot accept. I must explain you. You see."

It was evidently difficult for him to talk. He was embarrassed.

"When I die I don't know when that'll be, but when I die I want you understand, my body should not disappear without rendering some service to humanity."

"Well, what can I do?"

"Just send me to a place, to an institution where they can make use of my body when I am dead. Let them pay me now what they wish and I."

"Oh, I see, you do need money after all."

"Of course, I do, but I cannot take it for nothing. When I'll get some money, then I'll come back here and ask you to cure my stomach."

"I am not so sure that I can do it, but you need no money for that. You would not be the only one."

"I know, I know, other fellows have told me what you have done for them free of charge, but I want to pay you and I want no consultation before I am able to pay."

For nothing in the world would he accept my offer.

He had been trained to be proud. He had been in the navy of a great foreign country and had seen the globe. To show me that "it was no baloney," he took out all his papers from his pocket and displayed them on my desk.

A few days later he came again. This time I told him that I had no connection with anybody who might need his remains after his death and that I believed nobody would need them. There was always a sufficient supply and it was improbable that anybody would pay for that.

This enraged him so much, he left muttering gruffly.

But he reappeared within a week, when I succeeded in convincing him that he had exaggerated the value of his body to science. His obsession waned from minute to minute and gave way to reason.

"If that is the case," he meditated aloud, "I might as well try to find a job."

"Of course," I encouraged him, "and until you find one you can get relief."

"None of that for me. I prefer to work, even if it is the heaviest labor and I know I can get it if I want it hard enough."

611 W 158 St

Doctor "Did Johnnie take his medicine like a man?"

Mother "Yes, he made an awful fuss."
—*Nebr State Med Jour*

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EDITORIALS

Medical Preparedness

It is an open secret that compulsory sickness insurance will be on the legislative agendum when Congress resumes regular sessions in January. While leaders of the Administration have not committed themselves on the subject, many significant details point in this direction.

According to a recent article in *Medical Economics*, President Roosevelt has "expressed the conviction that health insurance fitted logically into a well-rounded social security program." It is true that Mr Roosevelt has repeatedly assured the nation that he would make no serious changes in the American system of medical practice without seeking the advice of the medical profession—but what are some of the other facts?

The Social Security Board's medical research committee, which presumably will draft any medicosocial legislation sponsored by the Administration, is not a physician but a lay sociologist, Dr I S Falk, known chiefly for his advocacy of obligatory prepayment for sickness. It does not require much perspicacity to guess that any program of medical care drafted by Dr Falk will embrace compulsory sickness insurance.

Other signs point the same way. When Robert F Wagner, Jr announced his

candidacy for the State Assembly on a platform of compulsory sickness insurance, presumably he was foreshadowing his father's forthcoming course in the Senate at Washington. If for any reason Senator Wagner fails to lead the fight for obligatory sickness insurance, there is Senator J Hamilton Lewis's interest in state medicine to be reckoned with.

It is unlikely that compulsory sickness insurance will be enacted in 1938 or even that the Administration will attempt to make an issue of it. Growing popular anxiety over the unbalanced Federal budget, the effect on business of new payroll taxes, the almost unanimous opposition of the medical profession, will make the politicians walk softly. If the 1938 bill is unsuccessful, however, it will be followed by others at future sessions, with a steady flow of propaganda in the intervals to fool the people into believing a system which has given Europe cheap medical service at high cost will do otherwise here.

There is an "unless" of course—and that "unless" rests with the medical voter. On November fifteenth Congress will meet in special session. Before *your* Congressman and Senators leave for Washington, see that they know you are opposed to compulsory sickness insurance—and why.

A Logical Alliance

The presidential address of Dr A T MacCormack before the American Public Health Association forecasts a closer integration of public health work with private medical practice. When the leader of the country's government-employed physicians decries the socialization of medicine, it is time for welfare agencies and politicians to stop and think.

Dr MacCormack does not minimize the importance of the public health officer by his insistence on the inviolability of private medical practice. Medicine has two aspects, public and private, each of which is best served by respect for the other's role.

Genuine cooperation between these two fields, so essential to the people's best interests, is only possible if neither fears encroachment by the other.

With good will and intellectual integrity such as Dr MacCormack displays, there should be no barriers to close and effective collaboration between the public health officer and the private practitioner.

The respective boundaries of public and private medicine are easily defined. As Dr MacCormack states, the sick individual is usually best treated by his own physician. Mass health measures—sanitation, the control of contagious disease, the analysis of general conditions producing bad health, and organization of efforts to combat them—are the state's responsibility.

Since health conditions and health needs show sharp divergences in different parts of the country, local planning and administration should be stressed. "Remote control" is for the most part impractical in public health. It necessitates too many bureaucratic intermediaries between the central health authority and the public and conduces to an undesirable standardization of health programs. Local health departments, operating in conjunction with the local medical profession, can formulate policies adapted to local needs and carry them out without waste of precious funds for bureaucratic upkeep.

Severe Burns

Branch¹ describes a method for the treatment of extensive burns which has yielded him universally successful results. Following the administration of a sedative, the burned areas are washed with a tincture of soft soap. All blisters are broken and loose skin removed. A one per cent solution of methyl rosaniline is sprayed over the entire area and the burn is then swabbed with a ten per cent solution of silver nitrate. The area is then resprayed with methyl rosaniline on several successive periods during the following hour and one half.

General supportive measures are also included where and when indicated. As soon as the coagulum has formed and when the period of shock and toxemia is over, the patient is permitted to walk.

Under this regime the morbidity was greatly reduced. The duration of pain and shock was shortened and the toxemia did not assume serious proportions. Skin grafting had to be resorted to in only one instance as most of the cases treated showed a sufficient number of epithelial islands when the crust was washed off with brine.

The silver nitrate coagulates the proteins and forms a coagulum which prevents the loss of body fluids. The methyl rosaniline prevents and destroys infection. Second degree burns were completely healed at the end of three weeks and third degree burned areas within a few days longer. The advantage of this method seems to lie in its simplicity and in the reduction of the time the patient must remain in bed.

Climate and Rheumatic Fever

At the present time, considerable attention is being directed toward the climatic treatment of rheumatic fever. This disease, with its attendant damage to the endocardium, has been one of the major problems in medicine. Of particular importance has been the avoidance of re-

currences which are apt to follow the acute upper respiratory infections usually prevalent during the winter months

The transportation of children suffering from rheumatic fever to a subtropical climate where the incidence of sore throats and colds is at a minimum seemed at first to promise much in the way of relief from recurrences. Studies over a period of seven years,¹ however indicate that there is a distinct annual variation in the improvement and protection from recurring attacks. The mild cases of rheumatic fever and rheumatic heart disease showed the most striking results from the change to a warmer climate. Severer cases either failed to respond to the change or were aggravated by an upper respiratory infection.

No definite conclusions can as yet be drawn. Most of the cases treated in this manner have remained in the subtropical climate only during the winter months and were then returned north. Only by transporting a large group of rheumatic fever patients and keeping them in the warmer climate for a period of years can this problem be solved satisfactorily. From an active therapeutic standpoint, caution should be exercised in the recommendation of a change in climate since the economic stress involved may not be compensated by the results obtained.

CURRENT COMMENT

"A DISTINGUISHED ANTHROPOLOGIST pointed out recently the ominous relation between the starvation of European children during the World War and the growing insanity of European political life as those children grew to manhood. The quality of reasonableness, or horse sense, in human beings is not just an accident. You cannot expect reasonableness in a person if he has a history of poor health, malnutrition, physical inferiority, social humiliation, and the kind of economic insecurity in which the individual is helpless in the clutch of events. With negligible exceptions, a mass of people subjected to these circumstances over a long

period will be tinder for the spark of a Hitler who promises to free them from inferiority and humiliation.

"A democratic social order depends on the ability of the common people to think clearly and to use the powers of government to control all dangerous private powers, whether of big business, of organized labor, or of the underworld. To allow a majority of the citizens to be brought up in urban or rural slums, with just grievances against society, with ill-nourished bodies, unnecessary diseases, and frustrated minds, is to wash away the foundations of democracy.

"Through all the generations of waste and lawlessness and corruption, the American dream has never died. Does it sound silly and sentimental now? It had better not, for that dream of a land of freedom to endure forever is all that America means. Without that, we are only one of nature's ghastly jokes."—Excerpts from an article by David Cushman Coyle, to be found in *Harper's* for October.

"SOME MORNING SHORTLY AFTER Congress has reconvened in January, you're going to pick up your paper at breakfast and gulp hard. On page one you'll find the news that a bill has just been introduced in Congress—probably by Senator Robert F. Wagner—providing for a national system of compulsory health insurance.

"A compulsory health insurance bill has long been a-borning. False alarms about it have been sounded on several occasions. This time, however, Washington opinion is virtually unanimous that 1938 will see its introduction in Congress. The bill may not actually be passed next year, but if it isn't, health insurance is certainly likely to become a premier New Deal issue in 1939.

"Given Wagner's sponsorship and the benediction of the White House, this bill will begin its trip through the legislative mill with tremendous advantages in its favor. Health insurance is regarded in Washington as a logical next step in the program of social security. Congress, having forgotten party lines in this respect and approved other social security laws, will scarcely be wholly unresponsive to socialized medicine.

"Physicians with no organized machinery of defense, require a much longer time to coordinate and erect their battlements. Half-baked legislation adversely affecting them can be pushed through Congress while they are still in the processes of analysis—unless they are forewarned sufficiently in advance."—William Alan Richard-

¹ Am Rheumatism Ass'n, 4th Annual Meeting, June 7, 1937

son sounds such a warning in his article in *Medical Economics* of October

'TO HAVE EVERYTHING SAFE is to stop all chance of advance. A 'social security' that claims to make everything safe for all through life would not be social security because it would ruin the chance of advance for society.'—James Truslow Adams asking "Is Security Secure?" in an article in *Barron's Weekly*

"THE INTEREST OF THE PUBLIC and the profession alike are best served by a strict adherence to ethical publicity and recognition of the fact that the physician's sole and proper advertisement is that of a reputation for honest and efficient work, which spreads from one satisfied patient to another"—From the *Bulletin* of the Fulton County (Mo.) Medical Association

"THE WAY OPEN TO EVERY MEDICAL man for recurrent graduate instruction lies in his local and his regional medical society. There he comes into contact with the more active of his colleagues, interchanges ideas with them, hears new methods of work described, and thus is enabled to keep pace with medical progress

"To those who are privileged to attend the meetings of national and international medical associations (general or special) still greater opportunities for growth in general medicine and surgery and in the medical and surgical specialties are afforded."—Dr L. F. Barker, speaking in regard to the Inter-State Post Graduate Medical Assembly, and quoted in the *St. Louis County Medical Society Bulletin* of October 8

"TWO THINGS HAVE TRANSPIRED recently in England that are almost an answer to the claims made for the benefits expected by some propagandists for health insurance. In spite of these claimed long-range advantages of the system in building up national health, last week Sir Kingsly Wood, Minister of Health, made a long speech urging the nation to attain a higher health standard, and mentioned the measures used in Germany and other countries, looking to building up particularly the youth of the country, and mentioned among other things higher wages, better housing, outdoor exercise, and better food. Nothing was said about the health insurance plan! So it is possible that the 'look and a bottle of medicine' has not achieved its purpose. A quarter of a century of state medicine has not,

evidently, improved the health of the population. The root of the matter is that with good food, better wages, better living conditions, the health of the people will be bound to improve, and state medicine is no substitute."—*Pittsburgh Medical Bulletin* of recent date

IN OUR AMERICAN DEMOCRACY, under the political systems now existing—vastly different as they are from the permanent civil service personnel background in Britain's plan of government—we find it impossible to visualize how our politicians would keep their hands off the money's necessary to carry on a governmental health insurance plan—"Politics and Health Insurance Do Not Mix" rightly claims an editorial in October's *California and Western Medicine* from which we have quoted in part.

"WHEN SCIENCE IS DESTROYED by the greed of commerce and egotism of ignorance, what will happen to humanity, bereft of its most understanding friend—ethical medicine? That day is forecast, for the efforts of societies and lay boards are directed everywhere toward the destruction of the professional status and its replacement by an industrial contract."—*The Illinois Medical Journal*, too, editorializes on this vital issue

"DR EDWARD L. BORTZ, A MEMBER of the Lankenau Hospital staff here (Philadelphia, Pa.), addressing members of the women's auxiliary, declared that Senator Wagner of New York planned to introduce a health insurance bill which would 'create a huge political bureaucratic organization'

"Control of American medicine will reside in that organization, not in the hands of the medical profession," he went on. "The quality of care given patients under that organization will be of a very inferior grade, since, instead of calling doctors themselves, they will have to apply first to a political bureau

"If the American people know what a ruse and guise this political bureaucracy will foist on the people, with an increase in taxes and an inferior type of medicine, they won't accept it."—From a report of the Annual Convention of the Medical Society of Pennsylvania, to be found in *The New York Times* of October 6

"THE DEATH RATE OF BETWEEN 40,000,000 and 50,000,000 Americans with incomes of

less than \$1,000 a year from the ten major diseases that cause three out of every four deaths in the United States, is twice that of the rest of the population, Josephine Roche, Assistant Secretary of the Treasury, told the annual convention of the American Public Health Association.

"These figures, revealed for the first time in a Federal survey of 750,000 American families, 3,500,000 individuals, constitute a challenge to Government, public health officials and the medical profession, Miss Roche asserted.

"Governor Lehman, who addressed the general session declared that it was his 'firm conviction that, so far as science and government can make it possible, *an equal opportunity for health is the right of all citizens of the community*, regardless of circumstances, birth, economic conditions, geographical limitations, race, creed, or color'" (Italics ours).

The article in *The New York Times* of October 6, from which we have quoted the above, continued, "The problem of pro-

viding adequate medical care for one-third of the population is becoming so acute, Miss Roche said, that 'no one measuring human needs and denials can doubt' the inevitability of 'concerted public action'.

"In this great democracy with its unsurpassed resources and potentialities for human progress,' she said, 'one third of our people are not going to remain indefinitely ill-fed, ill-housed, ill-clothed and ill-cared for in sickness.

"Organized medicine has admitted the problem and indicated it is receptive to ideas and is willing to cooperate.

"The situation calls for leadership. No one formula or program will probably be found adequate to meet our varied needs, but a composite of many efforts and plans, some in experimental stages, some not yet under way, can and must be found. What group is better fitted to lead and carry through than the public health profession, with its medical personnel and its tradition of fair dealing with the public and with the medical profession alike?"

AUXILIARY LEADERS MEET

Twenty members of the executive board of the Women's Auxiliary to the Medical Society of the State of New York, representing the State officers, standing committee chairmen and county presidents from the twelve organized counties, gathered on Sept. 28-30, at Bayport as guests of Mrs. John L. Bauer, former president of the State Auxiliary. On the evening of the guests arrival they were entertained at an informal dinner followed by a social hour of bridge.

The State president, Mrs. Francis R. Irving of Syracuse, held an executive meeting at which reports of the various county

activities were presented. Outstanding, during the past Summer were the achievements of the Onondaga Auxiliary, which sponsored a maternal welfare campaign, and of Suffolk County Auxiliary, in equipping the infirmary donated by the Suffolk Medical Society to the Boy Scout Camp at Baiting Hollow.

Mrs. Bauer then entertained her guests at a luncheon at the Golden Eagle in Bayport, followed by a drive which included a tour of Cathedral Pines and other parts of Long Island. In the evening the guests assembled at dinner dressed for a party of the 'Gay 90's'.

NATIONAL CANCER COUNCIL NAMED

Approval of the appointment of six men to form the National Advisory Cancer Council is announced by Secretary Morgenthau. The National Cancer Institute, which will be guided by the council, with Dr. Thomas Parran, Surgeon General, ex-officio chairman, will be maintained in the Public Health Service.

Those named to the Advisory Council are

Dr. James Ewing, Director of Cancer Research at the Memorial Hospital in New York City.

Dr. Francis Carter Wood, Director of the

Crocker Institute of Cancer Research in Columbia University.

Dr. C. C. Little of Bar Harbor, Me., head of the Roscoe B. Jackson Memorial Laboratory.

Dr. Arthur H. Compton, Professor of Physics at the University of Chicago.

Dr. James B. Conant, president of Harvard University.

Dr. Ludvig Hektoen, head of the Department of Pathology at the University of Chicago.

The Cancer Institute will be built at Bethesda, Md., on a site given by Mrs. Luke Wilson and her son.

Public Health News

Public Health Aspects of Heart Disease

A disease is a public health problem when it is either a menace or burden to the community. Judged by these standards, heart disease comes within this category. Certain of its causes such as syphilis, rheumatic infection, diphtheria and scarlet fever are in varying degrees communicable. The economic loss it entails has never been calculated, the suffering it causes is incalculable.

Heart disease differs from other public health problems. Unlike tuberculosis, typhoid fever and other infectious diseases it is a generic term covering a group of widely unrelated conditions due to congenital, infectious, metabolic, other or undetermined causes. As in the proper clinical management, efforts in the direction of prevention are dependent on the etiologic viewpoint.

The statement that heart disease is the leading cause of death is household knowledge. In fact, too much emphasis has been placed upon it. Over forty per cent of deaths from heart disease in the United States occur in persons past seventy years. While there has been an aging of the population on account of reducing deaths from infectious diseases, the span of life has not been increased. Despite the optimistic predictions of food faddists, Sunday supplement endocrinologists, and other enthusiasts a material increase in the human life span is unlikely. As a result of saving life in the earlier decades, more deaths from heart disease are inevitable.

While heart disease is a public health problem, the prevention and postponement of its more serious consequences are not as a rule amenable to methods of administrative control. The clinician and not the public health official bears the brunt of the attack. Their cooperation is essential, as witnessed in the current campaign against syphilis. The clinician who prevents cardiac patients from occupying hospital beds at public expense conserves the public funds. Health authorities should take keener interest in heart clinics, undertake studies on the mass effects of heart disease, and encourage research, especially that relating to its etiology.

Morbidity Estimates of heart disease morbidity vary considerably, dependent on whether all patients with cardiac defects are

included, or only those persons with clinical manifestations. Emerson estimated that in 1931 there were between 2,330,397 and 3,665,062 persons in the United States with some form of heart disease, or 19 to 29 per cent of the population. The Hagerstown survey revealed an annual morbidity rate for cardiovascular diseases of 18.3 per 1,000. School surveys range from 0.5 to 4.0 per cent, the consensus being about 1.0 per cent. During the World War twenty-six drafftees per 1,000 were rejected for heart disease. Approximately 2.0 per cent of applicants for life insurance fail to pass on account of this cause.

Mortality There has been an almost constant increase in the death rate from heart disease over a number of years. In the decade between 1920 and 1930 it rose from 159 to 214 per 100,000. In 1935 the rate was 224 per 100,000. It is higher among males than females and among white persons than Negroes, except in the age groups above seventy-five years. It accounts for about twenty per cent of the total mortality.

The situation is not as bad as might be supposed. A substantial reduction has been shown in persons under about forty years in independent studies by Cohn and by Armstrong and Dublin. The experience of the industrial department of the Metropolitan Life Insurance Company indicates that there has been no increase in heart disease mortality. Bolduan & Bolduan point out that its increase in New York City is largely fictitious when considered in conjunction with cerebral hemorrhage, nephritis, senility, and arteriosclerosis.

The writer found that twenty per cent of deaths in hospitals in a large city recorded by the office of vital statistics as heart disease were due to other causes. On the other hand only sixty-two per cent of deaths actually due to heart disease were so recorded, due largely to the failure to tabulate deaths as heart disease when reported on the basis of etiology.

Economic Losses According to the Committee on the Costs of Medical Care, heart disease is the ninth most expensive illness. The average professional charge per case per year was \$49.56. It accounted for 2.5 per cent of the total charges. It is estimated that it costs over \$60,000,000 annually for medical care including physicians' fees, nursing, drugs, and hospitalization.

Bigelow and Lombard estimated that in Massachusetts in 1931 there were 84,000 persons over forty years of age with heart disease, 2,605 of whom were totally disabled. Including the partially disabled 5,377 years were lost annually amounting to \$6,452,000 in wages. At this rate heart disease costs the United States about \$250,000,000 a year in lost wages, taking into consideration that approximately twenty per cent occur before forty years of age.

Not all types have an equal public health significance. The incidence, age distribution, factor of infection, chronicity and other factors require consideration. Some kinds of heart disease are at present preventable, some potentially preventable, while among others an increase can be expected.

Congenital Malformations Account for less than two per cent of heart disease. Frequently associated with other congenital deformities. Not regarded as an important public health problem. No method of prevention.

Diphtheria Results in less than one per cent of heart disease. With active immunization, early diagnosis, and proper treatment, this should cease to be a problem.

Rheumatic Infection Due to its prevalence, age distribution, extreme chronicity, influence on industry and the home, rejections for military service and relatively early ages of death, rheumatic heart disease is an extremely important public health problem. It results in fifteen to forty per cent of heart disease, depending on the locality. The average age at death is about thirty years. It causes at least 40,000 deaths in the United States annually. Paul estimates there are 840,000 cases.

The incidence of multiple cases in a family, occasional outbreaks in institutions, recurrences in cardiac hospitals and certain clinical features point to an infective background. Apparently it is somewhat less common than a generation ago. It is less frequent, but by no means rare, among the better-to-do than the underprivileged. To a large extent it is a product of industrialized urbanization. It seems to be distinctly less common in the South.

The etiology is unknown. Even though the causative micro-organism were discovered, it is doubtful if active immunity could be developed. For the time being, prevention is limited to the proper management of early cases and better child care. These are largely dependent on raising the general standard of living. The public should be educated to the potential seriousness of muscle or joint pains in children. School health examinations should be better utilized for discovering early cases. Sending

children to warm climates is helpful in selected cases, but is hard to visualize on a large scale.

Scarlet Fever This occasionally results in heart disease usually indistinguishable from rheumatic heart disease. It may reactivate rheumatic infection. A better method of active immunization against scarlet fever is needed.

Subacute Bacterial Endocarditis As this is usually superimposed on rheumatic lesions, prevention is in a measure dependent on reduction of rheumatic heart disease.

Thyroid Disease Accounts for less than five per cent of heart disease. With improvement and more widespread use of diagnostic facilities and greater alertness for masked forms, reduction in heart disease associated with hyperthyroidism or myxedema is confidently expected.

Syphilis Results in five to ten per cent of heart disease. Among Negro males it accounts for about twenty per cent. Disability and death occur mostly in the forty to sixty year period.

Its prevention depends upon early and adequate treatment. Progress has been made in the Scandinavian countries, Great Britain and New England. The U S Public Health Service is sponsoring a syphilis control program. *Hospitals and clinics can assist by recording the present incidence of cardio-vascular syphilis as a base line to determine future improvement.*

Arteriosclerosis and Hypertension Three factors play a role in this rather heterogeneous group—arterial hypertension, coronary arteriosclerosis and generalized vascular sclerosis. Altogether it is responsible for about sixty per cent of heart disease. This group has a public health significance insofar as it results in disability and death before completion of the normal life span. Many deaths occur at very advanced ages. Here heart disease is the clinical expression of a general involution.

Coronary arteriosclerosis and arterial hypertension in middle life constitute an important and probably increasing problem. The average age at death from coronary thrombosis is about sixty years. It appears to be more frequent among business and professional groups than wage earners. It is more frequent among males than females, Jews than Gentiles, and white persons than Negroes. It is a sad commentary that many useful citizens die prematurely from overwork while others remain unemployed.

The problem of arterial hypertension is a challenge to medical research. Fahr estimates that 140,000 persons in the United States die annually from essential hyperten-

sion, about 70,000 from heart disease. Unlike coronary thrombosis or angina pectoris, hypertension is extremely common in the Negro race in which it develops earlier, is

accompanied by a more fulminating hypertension, and results in death about ten years sooner than among white persons.

O F HADLEY, M D, Philadelphia, Pa

Recent Tuberculosis Figures

The steady decline in tuberculosis mortality since 1900 is the result of a variety of cooperative attacks on the disease. The objective of the National Tuberculosis Association has been to coordinate all these forces and to focus them on the prevention of the disease. Its statistical studies have proved an invaluable guide in determining effective procedure. The cause of the present lag in the decline of the mortality rate can only be discovered through such studies.

The decline in the death rate from tuberculosis from 200 per 100,000 in 1900 to 53 per 100,000 in 1935 indicates a public health achievement with which the people of this country should be fully acquainted. At the same time it should be pointed out to them that there are still 70,000 deaths from this disease annually, that it is the leading cause of death between the ages of fifteen and forty-five, economically and biologically the most productive years of life, and that tuberculosis is an infectious, and therefore a preventable, disease. With these facts clearly in mind the public will not rest content with what has been accomplished. A death rate of fifty provides no final objective. Why not forty, or thirty, or twenty, or, even better, complete eradication of the disease? There is no reason to believe that these ends are unattainable, but this will depend on the intensification of the present methods of control.

While stressing the gravity of high mortality among young people the fact must be faced that old age, too, makes its serious contribution. For instance, the death rate for seventy-five years and over was 106 per hundred thousand in 1934, while that for the group twenty-five to thirty-four was only seventy-nine. In other words, for every thousand old people there are more deaths from tuberculosis than in any thousand young people. Consider the menace of these old chronic cases, living often as they do as unrecognized spreaders of infection in the families of their children and grandchildren. An x-ray study of this group might yield productive leads in a preventive campaign.

Again at the other end of life's span we still face a shocking tuberculosis death rate among infants under one year of age, nearly forty per cent of the deaths being from tuberculous meningitis. Here is ample evidence of poor work in the field of breaking contacts.

Ten years or more ago statistical studies

brought out the fact that the death rate from tuberculosis among young women was well over fifty per cent higher than that among young men. There is evidence that the wide publicity and alarm created by this discovery has had its effect for at the moment there is a definite indication that the existing ratio to the disadvantage of the young women is distinctly less. One might interpret this as statistical proof of the value of publicity in health education.

In a recent study of death rates by occupation, the employed men were divided into groups according to social and economic status. The figures show that for the highest economic group, including lawyers, physicians, surgeons, etc., the death rate from tuberculosis was only 26.2, while the rate considerably increased through the other groups, such as clerks, agricultural workers, reaching the very high figure of 184.9 for the unskilled group. Also, the same study showed that while the tuberculosis death rate in the general population was 71 per 100,000 in 1930, the tuberculosis rate for men fifteen to sixty-four years of age gainfully employed was 87 per 100,000, being twenty-three per cent higher than the average. All these facts point to the necessity for some strenuous efforts to be put into the field of industry.

While the tuberculosis rate among the colored is three and one-half times that of the whites, their rate likewise is declining, dropping sixty-five per cent from 1910 to 1934. The white rate in the same period declined seventy per cent. We have only begun to supply any kind of special sanatorium or clinic care for Negroes. As they constitute eleven per cent of our United States population, it is vital to control the high rate among them if we hope to eliminate tuberculosis.

With the general decline in the tuberculosis rate there have been corresponding declines at all ages and in both sexes. The declines, however, have not been uniform. In childhood (up to 15 years of age) have

occurred the greatest decreases, while the rates for the middle-aged group and the aged have not declined as fast. The rate for young men has declined faster than that for young women.

Of equal interest with the statistical study of mortality rates is that of the declining rate of morbidity from tuberculosis. Many years ago von Pirquet, in Vienna, and more recently Hetherington, in Philadelphia, reported seventy to ninety per cent of infection with tuberculosis among the general population. While true for the situation in Vienna at the time of von Pirquet's report and of a group in Philadelphia living under unfavorable conditions, the figures do not represent truly the general infection rate for the United States today. The MA-100 study carried out by the National Tuberculosis Association from 1932 to 1934 included 12,000 individuals in widely scattered urban and rural areas and, covering ages from one to twenty and over, gave an average twenty-six per cent of infected persons in the population studied. The range was from nineteen per cent of those under one year of age to forty-six per cent of those aged twenty and over. Further tests are under way with PPD and the tabulation of 40,000 cases similarly studied will soon be available for comparison with the MA-100 list. It is doubtful that the results will show an adult rate of infection running over fifty per cent.

A striking statistical study in the tuberculous field is the increase of beds for the tuberculous. In the *Journal of the American Medical Association* for December 7, 1935, is the report of a sanatorium survey which gives the number of beds for the tuberculous as 95,198. Of these nearly 15,000, or fifteen per cent, were located in general hospitals, an interesting observation and one that may have its ultimate influence on sanatoria used exclusively for tuberculous patients.

A further trend in this direction is evidenced in a study made in 1935 which showed that in the state of Wisconsin eighteen per cent of the tuberculosis deaths occurred in general hospitals. Undoubtedly the modern methods of surgical treatment of the tuberculous have brought about this change.

In 1933, Dr. Bruce Douglas, chairman of the Committee on Treatment, reported that of 29,211 patients in 112 institutions of 100 or more beds, thirty-nine per cent had received or were receiving some form of collapse therapy. In six institutions over seventy per cent of the patients had been or were being treated by collapse therapy. According to the study of the American Medical Association, a total of 406 sanatoria and 101 of the principal tuberculosis departments of general hospitals are equipped with facilities for pneumothorax and administer over 500,000 treatments yearly.

Statistics regarding the staggering investments in institutions for the care of the tuberculous and the annual cost of their maintenance present cogent arguments for intensifying the preventive aspects of tuberculosis work. The valuation of the institutions themselves runs over \$329,000,000 and the annual cost of maintaining them amounts to \$76,000,000.

Of all statistical studies into the mortality and morbidity from tuberculosis none is more interesting than that of geographical distribution. Granting the well-known fact that urban rates exceed those of rural areas it is still somewhat of a mystery why some states show such an amazingly low mortality. For instance, Wyoming has the lowest rate for 1934, a mere 18.5 per 100,000, Nebraska and Utah have rates of 21 plus, Iowa and North Dakota, rates of 25. All in all there were 13 states with tuberculosis rates less than 40 per 100,000 in 1934 including Oregon, Maine, Minnesota, and New Hampshire.

Dr. Dauer, of Tulane University, by constructing a map showing death rates from tuberculosis by counties, has demonstrated a series of endemic areas of tuberculosis, which follow no artificial state boundary lines. Dr. Dauer is extending this study to cover the whole United States and the results of it will be of extreme interest.

It may be advisable to put intensive efforts on such highly infected areas rather than to attempt to cover whole states in which large areas are almost devoid of tuberculosis.

A Resume of Recent Tuberculosis Figures, Jessamine S. Whitney, Statistician National Tuberculosis Association, 50 West 50th Street New York, N. Y.

On October 1, the State of New York was officially designated by the U. S. Department of Agriculture as a modified accredited area, indicating its practical freedom from tuberculosis of cattle. New York thus becomes the forty-sixth State in which all counties are in the modified accredited status, indicating that bovine

tuberculosis has been reduced to less than one-half of one per cent as shown by the tuberculin test. In continental United States there are now no counties east of South Dakota that have not been designated as modified accredited areas, and only one other State, California, in which there are any nonaccredited counties.

Medical News

Broome County

THE REGULAR MEETING of the Broome County Medical Society was held on Oct 12. Among the interesting topics discussed were the pneumonia control program, the compensation fee schedule, and the organization of a speakers' bureau.

A special meeting was held on Oct 20. The speaker was Dr B R Kirklin, Professor of Radiology in the University of Minnesota Graduate School of Medicine, Director of the Division of Radiology of the Mayo Foundation, Chief of the Section in Radiology in the Mayo Clinic, who spoke on "Diseases of the Intestinal Tract". Officers will be chosen at the December meeting.

The Comitia Minora has made a recommendation that the meeting dates should not be changed "for usually insufficient reasons," nor should the meetings be merged with other organizations, or outside speakers be imported "to the almost exclusion of its own members," for "the impression is gathered by outsiders that there is no local talent, and none developing. The Committee does not believe this to be true."

Columbia County

THE COLUMBIA COUNTY MEDICAL SOCIETY met in annual session on Oct 5 at the Hudson City Hospital with a business session in the morning and scientific session in the afternoon. Dr Hugh G Henry, retiring president, presided at the business meeting and gave a paper on "Fever Therapy" at the scientific session.

Officers chosen were President—Dr R L Bowerhan, Vice-President—Dr L J Early, Secretary—Dr Henry C Galster, (re-elected). The censors were all re-elected and Dr Louis Van Hoesen added to the group. Committees will be appointed later by the new president.

The physicians were entertained at luncheon at noon by the board of trustees of the Hudson City Hospital.

Herkimer County

DR. J F GALLO spoke at the regular meeting of the County Medical Society on Oct 12 in the Mohawk Valley Country club. Dr Gallo's subject was "Injuries to Fetus at Birth." Dr G A. Burgin spoke on "Subdiaphragmatic Abscess."

Kings County

THE SECTION OF THE MEDICAL SOCIETY of the County of Kings on Laryngology, Rhinology, and Otology is arranging a comprehensive program for the November 10 meeting. The evening will be devoted to the "Problems of the Hard of Hearing". Prominent speakers will present the subject from practical, educational and legislative standpoints.

This meeting will lay the cornerstone for the future activities of the County Medical Society in this important field of public health work. Discussion will center about the needs of the individual with hearing defects and the facilities available to meet these needs.

The medical profession, nurses, teachers, friends, and social workers are cordially invited.

The meeting will be conducted on schedule, promptly at 8 P M in the MacNaughton Auditorium.

Monroe County

SIX HUNDRED ATTENDED a clambake in Webster Presbyterian Church on Sept. 23, the twenty-third annual bake in honor of Dr Alvah P Maine, for more than fifty years Webster's "country doctor." Doctor Maine celebrated his ninety-first birthday the day before. He retired about five years ago.

DR HOMER F SWIFT, DIRECTOR of the hospital of the Rockefeller Institute for Medical Research, New York, spoke on rheumatic fever before the Rochester Academy of Medicine on Oct 7. Doctor Swift was introduced by Dr David B Jewett, vice-president of the academy in absence of Dr Albert D Kaiser, president. Doctor Kaiser is attending sessions of the International Pediatric Society's meeting in Rome, Italy.

Nassau County

RECOMMENDATIONS FOR THE REVISION of medical relief administration in Nassau County were made at the meeting of the County Medical Society in Garden City on Sept. 28. During the scientific session Dr Russell L Cecil of New York hospital gave a paper, illustrated with slides, on "The Serum Treatment of Pneumonia", Dr Edward S Rogers, director of the bureau of pneumonia control of the state health depart-

ment spoke on "The State Campaign Against Pneumonia" and Dr Theodore J Curphey, pathologist at Meadowbrook hospital, on "The Bacteriology of Pneumonia and the Modern Method of Typing"

New York County

DR WILLIAM FREEMAN SNOW, general director of the American Social Hygiene Association, was the guest of honor at a testimonial dinner, attended by more than four hundred persons at the Waldorf-Astoria, on Oct 1

Dr Thomas Parran, surgeon general of the United States Public Health Service, urged the formation of "one strong national, voluntary agency" to carry on the work against syphilis and gonorrhea

The speakers devoted most of their talks to praising the forty years of work in social hygiene conducted by Dr Snow

Major General Merritte W Ireland, former Surgeon General of the United States Army, presided

Other speakers were Dr Wilbur A Sawyer, director of the international health division of the Rockefeller Foundation, Jerome D Greene, secretary of the Corporation of Harvard University, Dr John L Rice New York City Health Commissioner, Sir Arthur Newsholme, British public health authority, Dr Livingston Farrand, president emeritus of Cornell University, and Dr John H Stokes, professor of syphilology at the University of Pennsylvania

Niagara County

DR DESCUM C MCKENNEY was the speaker at the regular meeting of the Medical Society of Niagara county on Oct 12 at the Tuscarora club in Lockport. He spoke on "Rectal emergencies in general practice"

Oneida County

DR LOUIS C KRESS, assistant director of the State Institute for the Study of Malignant Disease, addressed the Medical Society of Oneida County on Oct 12 on "Common Types of Cancer Encountered in Daily Practice." The meeting was held at the Oneida County Hospital, Rome

Onondaga County

THE TOPICS AND SPEAKERS at the meeting of the Onondaga Medical Society on Oct. 5 were "Pneumonia Control," Dr W A Groat, "Syphilis Control," Dr T P Farmer, "Workmen's Compensation Law," Dr L E Sutton, Dr T F Laurie, Dr O W H Mitchell

THE SYRACUSE ACADEMY OF MEDICINE met at the University Club on October 19. The speaker, Dr B R Kirklin, Chief Roentgenologist, Mayo Clinic, Subject "Some of the Clinical Aspects Pertaining to Roentgenology"

THE FIRST FALL MEETING of the Women's Auxiliary to the Onondaga County Medical Society, took place Tuesday night, Oct 5, at the home of Mrs Francis R Irving

There was an interesting program with a paper on "Principles of Home Decoration," by Mrs Edwin Shepard, a book review by Mrs Raymond J Pieri, and piano selections by 13-year-old Ferman McKaig

Ontario County

DR E L STEBBINS addressed the Ontario County Medical Society in Canandaigua, on Oct 12, on "Source, Diagnosis, Clinical Course, and Treatment of Some of the More Frequent Streptococcus Infections Encountered in Medicine"

Orange County

MIDDLETOWN AND ITS HEALTH department were honored in New York City at a banquet session of the National Public Health Association convention, for having achieved first place in national competition with other cities its size for excellence in health and health protection

Dr H J Shelley, city health officer, had been invited to attend the banquet but was unable to appear. Dr Frank W Laidlaw, district health officer, was delegated to represent him and to receive a certificate symbolic of the city's prize rating. Several months ago Middletown received a bronze plaque for its standing

Otsego County

THE SEPTEMBER MEETING of the Otsego County Medical society was held in Coopers-town on September 24. Dr Harold D Harvey, of the Presbyterian Hospital (New York City) spoke on "Early Efforts to Evaluate the Results of Sulfanilamide."

Queens County

THE MONTHLY MEETING of the Woman's Auxiliary to the Medical Society of the County of Queens was held on Sept 28. Mrs John W Mahoney presided

After the reports of the committee chairmen, volunteers were asked to serve for the United Hospital drive. Mrs H P Mencken read the proposed changes in the by-laws of the Constitution. The installation of new officers will take place late in December, Mrs

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Elmer Kleefield, chairman of delegates to the State convention, gave a report. Mrs John W Mahoney read her report of the national convention.

Mrs Harold H Mitchell gave an explanation of the workings of the City Health Department and told about the opening of the new Health Center in Astoria on Oct 15.

A "CIRCUS PLUS" is ANNOUNCED under the auspices of the Queens County Cancer Committee, with variety acts and stars of the stage, screen and radio. It will take place in December, but the Cancer Committee's office is as busy as political headquarters in a heated campaign.

The committee's task includes a house-to-house canvass of the borough—for the sale of tickets. A group of National Youth Administration girls is assisting the regular staff headed by Mrs Walter Kerwin. The committee plans to open branch offices throughout the borough.

This is the first time the committee has undertaken such a big presentation. In the past it has sponsored bazaars and donkey baseball games. But this year's big show, "The Calvacade of Sensations," will be presented at the Jamaica Armory eight times at matinee and evening performances on December 2, 3, 4 and 5. A souvenir journal will be published in connection with the show.

In other years the committee has raised funds through its annual mail appeal. This year it is substituting the circus and stage presentation.

Rensselaer County

JOHN J AHERN, commissioner of county welfare, has asked the help of the Rensselaer County Medical Society in the formulation of "reasonable" regulations for the care of the sick among old age pensioners in the county.

Addressing the society on Oct. 5, at the Health Center, Commissioner Ahern termed the regulations drawn up by federal and state authorities affecting persons receiving old age pensions in need of medical care as "arbitrary."

The regulations have been made entirely by laymen, he said, and are wholly inadequate. Only ten calls by physicians at the homes of the sick are permitted in each case, regardless of how serious it may be. The county official pointed out that in Rensselaer County at least he wanted the regulations to be made more "flexible."

Money is available for whatever medical care the old age pensioners need in the county, he explained. There is a fund-at-

large from which sums may be withdrawn for the purpose.

ACTING ON THE PLEA for cooperation, the society gave the president, Dr Stephen H Curtis, authority to appoint a committee to confer with the county official regarding changes he proposes to make.

Two scientific papers were read, one on "Gall Bladder Disease" by Dr Peter L Harvie, and another on "Jaundice" by Dr Crawford R Green. A discussion of the papers followed with the following doctors taking part: Dr M A DeLuca, Dr John H F Coughlin, Dr Eugene F Connally, Dr Charles F Kivlin, Dr Richard P Doody and Dr David W Houston, jr.

DR. VICTOR C JACOBSEN, practicing physician in Troy for three years, attending physician and pathologist at the Samaritan Hospital and pathologist at the Mary McClellan Hospital, Cambridge, has been named associate professor of medicine at the Albany Medical College. Dr Jacobsen will also be attending physician at Albany Hospital, and will continue his practice in Troy.

Rockland County

THE FIRST MEETING OF the Rockaway Medical Society for the season was held Oct 21 at the Lawrence Country Club. Dr Louis A Sarrow, president. Dr Milton Morris, vice president, Dr Charles Martin treasurer and Dr Alfred Calvelli, secretary, all new officers of the society, were serving for the first time. The speaker was Dr Raphael Lewy, chief of the medical department of the New York State Department of Labor. His topic was "Conceptions of Industrial Surgery."

Schenectady County

A MEETING OF THE WOMEN'S auxiliary of the Schenectady County Medical Society was held on Sept. 28 at the Ellis hospital. Dr Joseph S Lawrence executive secretary of the state medical society spoke on "State Medicine." Mrs Herman W Galster presided.

Seneca County

DR FREDERIC W LESTER, secretary of the Seneca County Medical Society, reports that the regular annual meeting of the Seneca County Society was held at the Willard State Hospital on October 14. Dr W R Holmes, president, called the meeting to order and regular business was discussed. A luncheon was held in the hospital parlors at the invitation of the hospital medical superintendent, Dr Harry J Worthing.

The scientific program included a short

address by Dr. Don M. Griswold, District Health Officer for the new health district comprising the Counties of Ontario, Seneca, and Yates. Dr. Ferdinand J. Schoeneck gave a paper entitled "Disproportion in Obstetrics." Discussors included Dr. Asel J. Bennett.

A paper entitled "Insulin Shock Treatment in Dementia Precox" was given by Dr. Ross E. Herold of the hospital staff. The paper was followed by general discussion and questions regarding the twenty-eight cases now under treatment by this method.

Steuben County

DR. ELLEN SUTTON, a missionary in China, addressed the Hornell Medical and Surgical Association at their regular monthly meeting in the St. James Mercy Hospital, on Oct. 4, on "Medical Conditions in China."

Washington County

DR. SAMUEL J. PASHLEY was elected president of the Medical Society of the County of Washington at the annual meeting held on Oct. 5 in the Hudson Falls court house. He succeeds Dr. John H. Ring.

Other officers elected were *Vice president*, Dr. W. B. Nuzzo, *secretary*, Dr. Denver M. Vickers, *treasurer*, Dr. Charles A. Prescott, *members of the board of censors*, Drs. R. E. LaGrange and Charles H. Tolmes, *chairman of the committee on legislation*, Dr. W. A. Leonard, *chairman of committee on public relations and medical economics*, Dr. Michael A. Rogers, *delegate to the State society*, Dr. Denver M. Vickers.

Wayne County

WAYNE COUNTY PAPERS carried articles in September noting that few physicians in central New York can point to a longer record than Dr. William H. Sweeting, who observed his eighty-sixth birthday on September 22. He has been practicing medicine at Savannah fifty-four years, and has no thought of retiring. Dr. Sweeting began his practice in 1883 and has kept steadily at it since then, scarcely ever taking a vacation. He also has served the village as mayor, and as health officer for many years in both the village and town. Dr. Sweeting is a charter

member and former president of the Wayne County Medical Society.

Westchester County

DR. GEORGE H. RAMSEY, Assistant State Health Commissioner for the last five years, will be the new Westchester County Health Commissioner, and will take up his duties in December. He will succeed Dr. Matthias Nicoll Jr., present head of the county board of health and former State Health Commissioner. Dr. Nicoll reaches the retirement age of seventy next spring.

The county health board, which appointed Dr. Ramsey, also voted approbation of decentralization of the county health organization. If the Board of Supervisors approves, a plan, voted by the Health Board and sanctioned by Dr. Nicoll, would be effected.

Under it the county will be divided into four health areas, each with a district office and a staff of physicians, nurses and sanitation experts.

THE MOUNT VERNON MEDICAL SOCIETY held its "get together meeting" on September 16 at the Swanoy Country Club. About forty members of the Society attended the dinner in the evening and about fifteen played golf during the afternoon. Dr. E. B. Sullivan, who holds the A. M. A. Golf Association championship, won first prize, a gaily colored golfer's umbrella. Dr. Karl Gebhard and Dr. Carl Vrooman won second and third prize respectively, each receiving a half dozen golf balls. The Society enjoyed an excellent dinner.

THE MEDICAL STAFF of Northern Westchester Hospital in Mount Kisco held its annual dinner meeting at the Carmel Country Club, September 22. Dr. E. H. Wilcox was elected president and Dr. Alexander Vanderburgh was elected secretary.

THE WHITE PLAINS MEDICAL SOCIETY held its final golf match of the year at the Gedney Farms Golf Club on September 22.

The Society held its annual dinner at the same Club in the evening following the golf play. About forty members of the Society were present for the dinner.

Dr. H. C. Hancock won low gross in the golf tournament, Dr. Arthur S. Strauss was low net winner, and Dr. R. J. Heffering won the kicker's. Twenty-two members played

One of the exhibits at the San Francisco Fair in 1939 will be a group of animals fed from birth on concentrated food capsules, chemically compounded to give a perfect diet. The thought is that we shall

all be living on a similar capsular intake by 1995.

This dreary prospect may reconcile those of us who have dates for the happy hunting grounds before then.

Hospital News

The Hospital with a Smile

"MY GOD, MAY I WHY DO HOSPITALS have to be so cold?" asked a father whose little daughter had died in a New York state hospital. He had spent ten days in the hospital, yet "not until we were asked permission for an autopsy did any one ever show us, by word or deed, that they understood. No one ever seemed to realize that that little suffering child was mine, that I loved her more than anything in the world, nor that my wife had the heart of a sorrowing mother."

This incident was related by Mr M P Tanner, Assistant Superintendent of the Buffalo General Hospital, in an address on the topic, "Can we Give our Hospitals More Personality?" at the convention of the State Hospital Association in New York City in May. When he sat down, the chairman exclaimed "Congratulations! For twenty years I have listened to papers, and I have yet to remember one more interesting."

Courtesies "involve no expense," remarked Mr Tanner, and they "reap a real harvest in additional good will." Yet he went on to make this rather amazing revelation

In a recent article in a hospital journal the author made the statement that Telephone Company officials upon investigation had learned that hospitals are less receptive to possibilities of building public good will than other organizations. It has been said authoritatively that hospitals do not extend the same courtesy as business houses, department stores, and hotels. What a sweeping indictment! Here we are in charge of the fifth largest industry in the Nation being told that we do not have as much personality in our organization as that place where we buy our electricity or gas, or even a suit of clothes, or the place where we stay overnight when we are one hundred percent normal. We are not dealing with people in the mental state of the thousands that go through the doors of this hotel every day, but with people who are worried and anxious, with people who are undergoing perhaps the most vital experience of their whole lives. Notice the employees in this hotel—they radiate Astor personality, they clearly demonstrate in every step they take and every word they speak that they have had training

operator, for she makes the first impression when the hospital is called on the phone. 'She is the connecting link with the outside world. To thousands who never enter the front door she represents the hospital.' Her training in courtesy and sympathy is of the first importance. Then the elevator operators, hallmen, and all other employees who come in contact with the public, play their part. They must "carry the necessary smile, learn to speak to people, to call them by name if possible, and to act intelligently in emergency." Mr Tanner went on

No, we are not going to forget the Information Desk. Here is stationed the Number One person of the group that meet the public. It has been estimated that as high as forty to fifty percent of the people who enter the front door never speak to another member of the hospital staff—that makes her job a tremendous responsibility.

I like to tell the story of a young lady at a hospital information desk whom I saw a few weeks ago. An elderly lady crossed the lobby, sat down in a chair, and was having considerable difficulty in tying a shoe lace. The information dispenser left her desk in a flash and tied the annoying lace. If you could have seen the pleased look on this visitor's face, you would agree with me that this employee was truly giving the hospital a bit of personality.

A conversation at another information desk intrigued me the other day. The visitor, a middle-aged prosperous-looking lady, inquired, "Could you tell me if Miss Lowell in Ward B is to be operated on today?" The clerk replied, "I shall be glad to find out for you." The necessary 'phoning done, the young lady said to her inquirer, "No, not today, the nurse thought Miss Lowell would go to surgery tomorrow, would you like to go up stairs to see her?" The surprised visitor replied, "Yes, I would but not until I have told you that the reception I have received here this morning is a decided contrast to the one I was subjected to an hour ago in one of the other local hospitals. I was almost insulted in an effort to ascertain my aunt's condition." There is the type of public reception we all desire and my guess is that the young informationist had received some training.

How to Use Baseball and Prize-fights

A "glorious opportunity to spread to every maid and every waitress the story we desire" is afforded by the department head meetings,

A Friend Won by a Shoelace
Take first of all the hospital's telephone

Mr. Tanner believes The *esprit de corps* of the entire hospital staff can be cultivated to a high pitch by the right personal touch. Department heads can easily discover the special interests of the various workers. Thus

If the chef is interested in baseball can it not be arranged for him to attend the opener, and if the painter is a fight addict his foreman can spend a profitable minute or two now and again in discussing with him the relative merits of Joe Louis and Jimmy Braddock, and if you know these interests it is going to help if you, in passing through the kitchen, find out just where the "Yanks" will finish this season. Perhaps the pharmacist is an amateur photographer. Take five minutes to admire his pictures next time you are in and if you could arrange to see the dietitian, whose main hobby is local dramatics, in her next play she would love it. Department heads should learn the joys and sorrows and hardships of their employees and make it their job to display genuine interest in everything from a birthday to a wedding. It is just as important for department head meetings to discuss this type of management as it is to determine the best method of routing linen to the floor and back to the laundry. These people are our foremen, and they should be encouraged to hold conferences with their employees and obtain the results that this contact will make possible. Not long ago while walking in the basement of a hospital I saw a man looking for a certain department. He was espied by a maid who left her work and took the visitor to the proper door, which was infinitely better than attempting to direct him. Upon inquiry I found that even the maids in this hospital had been given

instructions on how to assist the wandering public. It is mighty important for us to train our department chiefs in order that the attitude of the Superintendent's Office permeate every corner of the organization.

Dear Old Joe Public

The Superintendent of Nurses undoubtedly has meetings with the floor and other supervisors every week. The most should also be made of this opportunity because the nurse with her hundreds of daily duties can not be expected to remember that her work also includes, as does every person's in the hospital, this very important duty of making the hospital well thought of by every one who comes inside its doors. Did it ever occur to you that people will talk about your hospital if they know anything about it? Through these nurses we have a chance to educate our public because patients and their families talk to the nurse. How many of your nurses know that the hospital has 365 persons on the payroll, or that there are over 2,600 meals served each day, or that the laundry processes nearly two tons of linen every twenty-four hours, or that between fifty and sixty nurses are graduated from its school annually. Do the members of your staff know that their hospital does each year free work in excess of \$100,000, or that over 50,000 visits are made to the Out Patient Department at a terrific annual cost to the hospital? These are bits of information in which the public will be interested. It does not take Dear old Joe Public long to find out the unpleasant details of hospitals and it is our job to tell him the interesting worth-while facts and give him a chance to readjust his attitude about the one civic enterprise which he would not do without.

Scottish Hospitals and Ours

MARVELING AT THE MODERN equipment of Grasslands Hospital in comparison with hospitals of Scotland, Miss Annie Winifred Connolly of Stevenson, Ayershire, Scotland, praised the American hospitals following a tour through the County Clinic in August as a guest of Welfare Commissioner Hugh F. Graham of Greenburgh.

Miss Connolly is a graduate nurse and is a teacher of nursing in the Junior Instructional School, Motherwell, Scotland.

The visitor was surprised to find the various classes of treatments collected together in one hospital. In Scotland a general hospital is entirely separated from those for infectious diseases. The tuberculosis sanitarium was the most unique department of the hospital that pleased Miss Connolly.

The American sanitariums are modern to the smallest detail, she said. The sunlit wards, the freedom and the educational facilities are wonderful. In Scotland a child under treatment for tuberculosis loses this part of his education, Miss Connolly explained. The freedom allowed both patients and visitors in our hospitals was something new. In Scotland the discipline is quite strict.

In describing the operating room of our great hospitals she said that they are the most efficient that she has ever seen. In Scotland, the room is called the "theatre." It is a common phrase for the nurses to say to the patients, "we are going to the theatre this afternoon," the visitor smiled.

When asked about the comparative cost

of medical attention, Miss Connolly burst forth with a lengthy reply on the expensiveness of our doctors and hospitals.

Visits to doctors, or professors as they are called in her native country cost one dollar for the ordinary consultation, and hospital charges are inexpensive, she said.

Miss Connolly went on to explain why she thought there was such a great difference in charges. In Scotland there is a country-wide feeling that hospitals are in need of charity. This thought is impressed into the children's minds from early stages. Once a year, every student takes part in what is called student's day. They dress up in fancy costumes and solicit funds for the hospitals and sanitariums.

The children are quite persistent in their

efforts and many persons buy Immunity Badges previous to the campaign which shows the solicitors that the person wearing a badge has contributed his share to the fund.

A compulsory charge of one penny is fixed on all salaries and this amount is used for a general hospital fund. The nurse stated that clinics were used by the best of people and not looked upon as a form of charity as it sometimes is accorded in this country.

Women's clubs are constantly campaigning for funds and a radio broadcast is made each week for institutions that are in need of funds. There are just as many cases in the hospitals in her country in proportion to ours, she stated.

Newsy Notes

NEEDLESS AMBULANCE CALLS

JAIL TERMS AWAIT THOSE who make unwarranted ambulance calls. Dr. S. S. Goldwater, New York City Commissioner of Hospitals, has announced.

Summoning an ambulance for a sick dog or cat or when the baby refuses to take its bottle may seem a necessity to some folks, but it's getting to be a "pain in the neck" to hospital officials, says a New York newspaper.

In the future, Dr. Goldwater will check all ambulance calls. Those which prove unnecessary may cause immediate arrest of the persons who sent such calls. James Murray has been assigned by Dr. Goldwater to investigate calls and cooperation of Police Commissioner Valentine has been promised.

The straw that broke the camel's back proved to be in the hands of Edward Beaford, Brooklyn. He was arrested by investigators of the Department of Hospitals after it was found he had sent a call for an ambulance when his cat became ill.

Beaford was found guilty of disorderly conduct and received a two-day sentence in Raymond St. Jail from Magistrate Brill.

Of the 186,660 ambulance calls registered in Brooklyn and Queens last year, Dr. Goldwater says 105,040 were "negligible" and "entirely unnecessary." Most of these cases, he said, could have been handled by any one with an elementary knowledge of the use of a first-aid kit.

It costs the city about \$650,000 annually for ambulance service. Private institutions get about half of this. Dr. Goldwater estimates that each ambulance call costs the city \$2, not to overlook hazards to the driver and interne speeding to the scene.

NURSE SHORTAGE LAID TO LOW PAY

THE IMPENDING SHORTAGE of adequately trained nurses for New York city hospitals, reported by Hospital Commissioner Goldwater, is confirmed by Mrs. Marion Fleming, chairman of the New York Counties Registered Nurses Association.

Until an increased appropriation makes it possible for nurses to live "as other professional women do," Mrs. Fleming declares, there can be no improvement in the situation.

Despite the eight-hour day put into operation officially in July, Mrs. Fleming explains conditions in the municipal institutions have proved so unattractive that a drive sponsored by her organization to divert nurses into those hospitals brought few results. The salary of \$75 a month and maintenance for general duty, she explained, is far less attractive than the remuneration received in the field of public health.

"To meet the eight-hour law," she explained, "it proved necessary to increase the already heavy patient load for each nurse, making a routine of exhausting physical effort for practically every one. The main-

tenance provisions include crowded living conditions in dark, old and uncomfortable rooms, where the nurses are subject to the same rules that govern students

"If they live outside the hospital where they can escape the atmosphere of illness during their off hours, the city allows them only \$30 a month additional, and, in spite of the fact that many prefer it, meals, room rent, carfare and other expenses can hardly be covered adequately on \$105 a month"

HOSPITALS ASSOCIATED WITH the United Hospital Fund have been notified that an appeal has been made to the Board of Estimate for an increase in rates paid by New York City for the care of public charges in voluntary hospitals. The increase would bring the city's 1938 bill on this account to a total of \$8,259,933

The increased rates, if approved, would add \$2,730,411 to the cost of hospital care for public charges, as compared with a total cost of \$5,529,522 in 1936. The committee remarked that the present rates have been in force for many years and were established on a haphazard basis in the first place.

The following increases in daily rates have been suggested: Infants under five years, from \$1.15 to \$3; medical and surgical cases, \$3 to \$4.25; tuberculosis patients, \$1.75 to \$2.25; active cancer patients, \$3 to \$4.25; custodial cancer cases, \$1.75 to \$2; orthopedic treatment for children, \$1.40 to \$2.25; chronic, incurable or infirm, \$1.15 to \$2; special medical and surgical cases, \$3 to \$4.25; maternity cases, \$35 to \$50.

The fund committee has discussed the rise

in rates with individual members of the Board of Estimate. In a communication to member hospitals it suggested that they act at once to urge city officials to increase the budget of the Hospital Department to meet the proposed rates.

HOSPITAL INSURANCE PLANS keep on growing rapidly throughout the state. Hospitals report that the plans are not only helpful in a financial way to both hospital and patient, but they lead to a larger use of the hospitals which is also beneficial all around. President Ernest G. McKay, of the State Hospital Association, noted in his annual report that New York, Rochester and Syracuse report a material increase in membership, Albany, Troy and Schenectady have set up a plan with Albany as headquarters and are making progress, Buffalo and Niagara Falls have combined and their membership has shown a steady growth, Geneva has had a plan in operation for over a year which has been very satisfactory, Utica has started a service organization, Ithaca and Watertown are making arrangements for a similar service and Elmira is very seriously considering the proposition.

THE STATE HOSPITAL ASSOCIATION voted at its convention in May to favor a bill at the next session of the legislature for an "eight out of twelve-hour day" and a forty-hour work week in the hospitals, as opposed to the movement for a work-day of eight consecutive hours.

Improvements

SENECA FALLS IS CONTEMPLATING a new hospital building, erected near the present building at an estimated cost of \$165,000 for the building and required additional equipment. Plans are prepared, and a petition signed by taxpayers will probably result in whole matter being put before taxpayers of the township at the November election. The project is for a three story structure, 152 feet long and forty feet deep with a wing going back from the center, a wing thirty feet wide. The plan calls for building the new structure thirty feet westerly from the present hospital, which would be retained

for supplementary use along with the new building. The present fine equipment of the hospital would be moved to the new hospital and additional beds purchased to bring the normal capacity up to forty-eight patients. The estimate of \$165,000 includes the cost of additional equipment but does not include the cost of additional land.

THE CORNERSTONE OF THE \$600,000 eight-story addition to Israel Zion Hospital, Forty-ninth Street and Tenth Avenue, Brooklyn, was laid on Oct. 10. The new building will

provide 220 beds, increasing the bed capacity to 670. The structure is more than half-completed and should be ready for occupancy early next Summer.

THE NEW YORK CITY BOARD of Estimate has voted more than a million dollars for improvements at Bellevue Hospital.

THE NEW BETH DAVID HOSPITAL, New York City, was dedicated on Oct. 17.

THE CORNERSTONE OF THE NEW St. Francis Hospital at Olean was laid on Oct. 3.

GROUND WAS BROKEN on Sept. 27 for Highland Hospital's new \$200,000 maternity building, the gift of Miss Louie A. Hall. Five months from now will see completion of the new structure, the only separate maternity building in Rochester, and expansion of facilities for other patients and technical department into two floors now occupied by maternity patients. The three-story structure of red brick, harmonizing with existing buildings, will contain forty-six beds, increasing total capacity of the hospital from 185 to 225 beds.

THE HAMILTON AVENUE HOSPITAL in Monticello is being enlarged by the addition of a solarium, roofed by a sun-deck for convalescent patients.

CONTRACTS FOR IMPROVEMENTS to the Knights of Columbus wings at Gabriels sanatorium in the Adirondacks that will cost \$30,000 were let at the annual meeting of the Knights of Columbus New York State hospital committee at the sanatorium. The improvements call for a new x-ray room, operating room, examining room and new modern equipment for each, and the installation of a talking picture projection apparatus and individual radio outlets in each of the unit rooms. The K of C maintains two units containing thirty-three rooms and an infirmary containing forty-four beds. The radio outlets are to be placed in the infirmary building also.

THE SWEDISH HOSPITAL in Brooklyn is planning to raise \$250,000 for the remodeling of the Chatelaine Hotel, Bedford avenue and Dean street, into a model six-story hospital with 125 beds. The purpose is to provide larger quarters than are now available in the present Swedish Hospital, Rogers avenue and Sterling place, which has only sixty-nine beds. This will be abandoned after thirty-three years service.

THE CAMPAIGN TO RAISE \$700,000 for the improvement and enlargement of Ellis Hospital in Schenectady will be made in the latter part of October. The present hospital began its service in 1885 and is badly overcrowded.

AN AGITATION IS UNDER WAY for building a Community Hospital in Keesville.

. . .

A COMPREHENSIVE PLAN for building an addition to the Rome Hospital to eliminate the present over-crowding is under discussion. The plan is to construct a wing to the east of the present structure of at least fifty beds capacity so as to eliminate operation of the Murphy Memorial hospital in the interests of economy and to eliminate over-crowding in the general hospital.

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INCREASING THE FACILITIES of the Lafayette General hospital in Buffalo to a seventy-five-bed institution, possibly including a children's ward, is contemplated under an extensive remodeling program recently put under way. Plans call for construction of a new front in Lafayette avenue and extension of the hospital building outward, setting up of a completely new x-ray department, addition of more rooms on each floor of the institution, addition of eight or ten beds, and establishment of an enlarged emergency ward.

THE POLISH MEDICAL AND Dental Association of Buffalo is considering a movement to build a new hospital for the East Side, to care especially for the people of Polish origin.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel Medical Society of the State of New York

Hospital's Suit to Recover for Physician's Services

An interesting situation was presented a short time ago in one of our trial Courts, when a hospital sought to enforce the payment of a bill for services rendered to a patient which included professional services rendered by two different physicians*.

The plaintiff in the action was the D. Sanitarium which was conducted as a private or proprietary hospital as distinguished from a public or charitable hospital. The defendant was the husband of a patient who had been attended at the hospital during her last illness, and had died there. While she was a patient she authorized and received certain treatment, including an operation, at the hands of two doctors. One of them was a staff physician and the other was a surgeon not a member of the staff.

The action was brought against the husband to recover approximately \$100 for hospital services, \$225 for medical and surgical services, and \$35 for the services of a nurse. When the case came on for disposition there was no real dispute before the Court as to whether or not the sum demanded as the value of the services was fair and reasonable. The actual question for determination was whether the hospital corporation had the right to recover for the physicians' and nurse's services.

With regard to the amount of the demand which represented the services of the nurse the Court ruled that there was no reason shown why the plaintiff might not properly charge for her services. The testimony in the case indicated that the nurse on the case was one of the regular staff of nurses regularly employed by the hospital and under the direction of the administrative staff of the hospital.

The matter of physicians' fees was challenged on two grounds. *first*, it was argued that an operation does not come under the classification of necessities to render a husband liable, *second*, that without a legal assignment by a physician of his claim for professional services, a hospital has no legal right to sue therefor.

The first problem was disposed of readily by the Court with the ruling that medical

services including operations are in legal contemplation necessities and have been for many years so regarded. In support of that proposition were cited certain cases, one of which was decided as far back as the year 1610.

In ruling that the hospital did not have the right to recover for the doctors' fees the Court said in his opinion:

Although a hospital has been said to practice medicine through the agency of physicians and surgeons, a comprehensive survey of the relationship existing between hospital, physician and patient compels me to adopt the view that a hospital, rather than practicing medicine *per se*, is a place where medicine is practiced by physicians. In *Matter of Bernstein v Beth Israel Hospital* (236 N. Y. 268, 270) it is there stated: "Such a hospital undertakes, not to heal or attempt to heal through the agency of others, but merely to supply others who will heal or attempt to heal on their own responsibility."

The description is as apt in its application to private as to public hospitals.

The cases, therefore, relegate a hospital to the role of a specialized hotel where the sick or infirm in body or mind may be treated by physicians expressly or impliedly employed by them.

Most persuasive, however, is the case of *Matter of Agnew* (132 Misc. 466, 471). There it was held that physicians could recover for surgical services performed in a hospital for a patient who had concealed the fact that he was financially able to pay. The court pointed out that the physicians were "the ones who conferred the benefit" and that they, therefore, and not the hospital, had the better right to reimbursement.

In the instant case there exists no impediment to a suit for services rendered by the physicians who treated the defendant's wife. To allow recovery for medical services in this action would quite conceivably lay the foundation for two recoveries for the same acts. The claim for physicians' services, therefore, must be dismissed without prejudice.

Judgment was directed in favor of the hospital for the amount of hospital and nursing services only.

Plastic Surgery of Nose

A young woman consulted a physician, who specialized in plastic surgery, with respect to complaints that her nose was long,

* *D. Sanitarium v. Blair*, 161 Misc. 716

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humped, and caused her embarrassment. The doctor undertook to perform a plastic operation upon her nose for the purpose of attempting to improve its appearance. She entered a sanitarium and the operation was performed under a local anesthesia.

The doctor removed the bony and cartilaginous hump and narrowed the wide bony bridge, using a procedure which required no external incisions. The patient remained at the hospital two days and thereafter went to her dressings to the office of the surgeon. At one time during the period of aftercare the patient complained of a thick spot of nasal skin on the midline about the size of a pimple. The doctor suggested that it might be excised, but the said procedure was never followed since the patient demanded that the work be done in his office and he refused to do the same except at a hospital.

Some time later a malpractice action was brought against the plastic surgeon, in which the claim was made that he had negligently operated upon her with the result that a scar was left on her nose, that her breathing facilities were impaired and that she had from time to time had suffered some impairment of hearing. About three years after the operation and shortly before the case was to be reached for trial, a physical examination was made of the plaintiff on behalf of the defendant. Said examination showed that the surgery had been well-performed and was successful. A comparison of the plaintiff's appearance at the time with photographs taken before the operation showed that unquestionably from a cosmetic viewpoint the patient had benefitted considerably from the operation. The examining doctor found ample breathing space inside the nose of the plaintiff and found one very small thickened area of skin above the tip of the nose, which was of trivial importance.

After the said examination was made, the attorneys for the plaintiff attempted to prevail upon the defendant's counsel to make some sort of offer of settlement, and when no such offer was forthcoming, the case was discontinued.

Treatment of Lichen Planus

A young woman, twenty-eight years of age, consulted a physician who specialized in dermatology, with respect to complaints

of a skin eruption which had been troubling her for about a month.

The doctor was informed that the eruption began on the right wrist and spread rapidly over her arms, elbows, back, and genitalia with severe itching. Examination led to a diagnosis of Lichen Planus. The doctor instituted treatment for the condition consisting of subcutaneous injections of sodium cacodylate and intramuscular injections of bismuth salicylate. These injections were continued at weekly intervals over a period of about eleven weeks. On certain occasions, fractional dosages of x-ray were administered to the most severe areas—the arms, elbows, and back. During the latter part of the said period of treatment, the patient's condition had apparently improved, but at the end of that period she complained of itching of her external genitals. Thereafter she returned to the doctor with additional complaints of an aggravation of a condition. She then showed evidence of a general dermatitis, which was diagnosed tentatively as a mild arsenical dermatitis.

Sodium thiosulphate was prescribed instead of subsiding in a few days, the dermatitis became severe involving the entire skin surface. As soon as the doctor had ascertained that a complicated dermatitis was developing, he stopped the arsenical medications, which he had been administering. The doctor continued to care for the patient after the condition of dermatitis had become severe and her condition did not begin to improve for a period of about six weeks. During that time she developed many boils from a secondary infection in the groin, genitalia, axillae, and neck. Finally her condition began to clear up and at that time the patient consulted other doctors who took over the care of her case.

The patient instituted a malpractice action charging the dermatologist with malpractice in administering to her excessive dosages of an arsenical preparation, causing her to suffer from a general arsenical poisoning.

The case came on for trial before a judge and jury and the plaintiff gave testimony concerning a long history of pain and suffering. However, she failed to establish, by competent medical testimony that the treatments administered to her by the defendant physician were improper for the condition from which she was suffering at the time. Consequently, at the close of the plaintiff's testimony, the Court dismissed the complaint.

The widespread epidemic of cholera in China is not likely to reach our shores, according to our Public Health Service, as

cholera shows itself in five days, or less time than it takes to come from China, and all cases can be quarantined.

Across the Desk

Don't Despair of the Human Race

OUR CIVILIZATION IS CRUMBLING, according to a distinguished observer whose views must be treated with respect. He is Dr Alexis Carrel, surgeon and Nobel Prize winner, and he delivered this somber verdict on the sons of Adam a few days ago in an address at the 150th anniversary of the Dartmouth chapter of Phi Beta Kappa. "The civilized races," he declared, as reported in press dispatches, "seem to be losing the courage to live. In almost every country the reproduction of the more gifted individuals is decreasing. This phenomenon is of ominous significance. Did it not herald the crumbling of the great civilizations of the past?"

True, we have marvelous machines and devices to surround us with every comfort and luxury, and we are conquering the scourges of disease in a miraculous way, but, asks Dr Carrel, "are health and comfort of any value if we become mentally and spiritually worthless? Those who have given their lives to the search for the prevention and cure of disease," he adds, "are keenly disappointed in observing that their efforts have resulted in a large number of healthy defectives, healthy lunatics, and healthy criminals. And in no progress of man."

To Mold Man Nearer to the Heart's Desire

To remedy this desperate condition of things Dr Carrel would set up "Institute of Psychobiology," where "spiritual as well as material values would be studied." Our learned specialists are confined too much to their own little corners of human knowledge to see man as a whole. Their minds "will have to be organized into a center of synthetic thought, a focus of collective investigation of human problems—in fact, into an institute for the construction of the civilized."

"As far as I am concerned," Dr Carrel concluded, "I intend to devote the rest of my life to the problem of developing man in his organic and spiritual entirety. For the quality of life is more important than

life itself. We must now use theoretical and applied science, not for the satisfaction of curiosity, but for the betterment of the self and for the construction of truly civilized man."

Mountain Views are Deceptive

Dr Alexis Carrel, of course, is a scientist of the highest eminence and distinction, and, when he speaks, we must all listen. But may it not be respectfully suggested that his very position on the mountain peaks causes him to see the rest of us in a more or less distorted perspective? Genius is ever lonely. If mountains could speak, would not Gaurisankar and Kanchanjanga declare that the rest of the earth was in a low state? Our big world seems different to every observer. In the old story, to one blind man the elephant felt like a tree, to another, like a snake, and to the third, like a rope, as they grasped its leg, its trunk, and its tail. Dr Carrel looks out upon mankind and is in despair. Robert Louis Stevenson, dying by inches, said "The world is so full of a number of things, I am sure we should all be as happy as kings." It all depends upon the point of view.

What is true from Dr Carrel's viewpoint may be untrue from another viewpoint. From his lofty station we may seem to be struggling blindly through the fens, but those in the thick of it may see that we are climbing, climbing, up and up and up, slowly perhaps, stumbling and falling here and there, but all the time gaining firmer footholds, a little higher and a little higher, on our way to levels never before attained by man.

The key to solve the discrepancy between Dr Carrel's philosophy of despair and the perhaps childish hope of the rest of us that we are making some progress may be found in his statement that "in almost every country the reproduction of the more gifted individuals is decreasing," a fact that he believes "of ominous significance." What we need, as he sees it, are "minds endowed with universalistic tendencies," for these "alone have the power to solve the problems of modern society." In short, we need great

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genuses whose minds can grasp the intellectual and spiritual problems of the human race in their entirety. It is said that Lord Bacon knew everything there was to know in his day. Leonardo da Vinci was at the same time a painter, sculptor, and architect. He was versed in anatomy, astronomy, botany, mathematics, engineering, and music. He painted the "Last Supper" and, it is said, invented the wheelbarrow. He anticipated the discoveries of Galileo, Kepler, and Copernicus. There was, indeed, a "universal mind." We have too few, if, in fact, any such minds today. Dr. Carrel is certainly right about that.

An Epochal Experiment

But we are living in a different world now. If we are to judge the human race, let us look at the race, and not at the few outstanding individuals. The civilization of da Vinci and Lord Bacon is gone forever, and we shall make a huge mistake if we try to judge the twentieth century by the sixteenth. Four hundred years ago great geniuses towered to the stars. Today, instead, we are trying to lift the whole people to higher levels. Which is better? To ask the question is to answer it. If what we want is a higher civilization, then the elevation of the entire population to new plateaus of mind and spirit is the most promising achievement in history.

We are putting democracy to the test. Students of history say that genius flourishes best under regimes of monarchy and tyranny, when brilliant minds are given royal protection and favor. We are trying a different plan. We are educating everybody. Out of a total population of 130,000,000 around 30,000,000 are in our public and private schools and 1,000,000 are in our colleges and universities, learning things that Lord Bacon and da Vinci never dreamed of.

It is common for us to think of Great Britain as the land of culture, but, if we look more closely at British society, we find that its culture is the culture of a class. Great Britain has a population of some 45,-

000,000, or about a third of ours, but has only 6,000,000 pupils in its common schools, or about one-fifth of ours, and where we have 1,000,000 college and university students, Britain has only 55,000. America is trying a colossal experiment, never before attempted on this planet. We are trying to bring culture into every town and city, into every village and hamlet, into every home, into every mind that can receive it. Is not that the most promising thing for civilization that was ever projected? It is something tidal, something seismic, and who can say what its effects may be?

Civilization Just Starting its Stride

Of course we have to remember that the trend of our age is materialistic, and bright young minds turn naturally to science and mechanics where in other days and other lands they would turn to sculpture, painting, and poetry. Every garage mechanic is tinkering with some invention, Jim and Dick and Tim rig up a "laboratory" in the attic. The Wright brothers started with a bicycle repair shop. Today's genius must work in today's mediums.

In literature, the trend is to fiction. When father was a boy he used to hide his murder story inside his geography and get a thrashing if the teacher caught him at it. Now daughter is in a story-writing class in college and mother is taking a course in the woman's club to learn to write stories with murders more mysterious and baffling than ever raised father's hair in days of yore.

Great minds may smile at these things as childish performances, but what we are witnessing is the spectacle of a whole people beginning *en masse* to take hold of science and literature. It may produce nothing of permanent value today, or tomorrow, or in ten, twenty, or fifty years, but we see the soil being prepared, and the seed planted, on a scale never before known. It would be a hardy skeptic indeed who could look at all this and say there would be no harvest. Civilization, for the many, not for the few, is just getting into its stride. Browning had it right when he wrote "Grow old along with me. The best is yet to be."

"How is your doctor son getting on in his practise?"
"Excellently—he is now occasionally able to tell a patient there is nothing wrong with him."
—Philadelphia Evening Bulletin

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Manual of the Diseases of the Eye For Students and General Practitioners By Charles H May, M D Fifteenth edition, revised Duodecimo of 498 pages, illustrated Baltimore, William Wood and Company, 1937 Cloth, \$4 00

Aids to Physiology By Henry Dryerre, Ph D Second edition 16 mo of 295 pages, illustrated Baltimore, William Wood & Company, 1937 Cloth, \$1 25

To Drink or Not to Drink By Charles H Durfee, Ph D Octavo of 212 pages New York, Longmans, Green and Co, 1937 Cloth, \$2 00

Principles and Practice of Public Health Dentistry By J A Salzmänn, DDS Octavo of 584 pages, illustrated Boston, The Stratford Company, 1937 Cloth, \$4 00

An Introduction to Dermatology By Richard L Sutton, M D and Richard L Sutton, Jr, M D Third edition Octavo of 666 pages, illustrated St Louis, The C V Mosby Company, 1937 Cloth, \$5 00

The Cost of Adequate Medical Care By Samuel Bradbury, M D Octavo of 86 pages Chicago, University of Chicago Press, 1937 Cloth, \$1 00

Latent Syphilis and the Autonomic Nervous System By Griffith Evans, M A, FRCS Second edition Octavo of 157 pages, illustrated Baltimore, William Wood and Company, 1937 Cloth, \$3 00

Tumors of the Nervous System An Investigation of the Most Recent Advances Volume XVI of a Series of Research Publications of the Association for Research in Nervous and Mental Disease Octavo of 493 pages, illustrated Baltimore, The Williams & Wilkins Company, 1937 Cloth, \$7 50

Anatomy and Physiology of Physical Training By Major R W Galloway, M B Duodecimo of 182 pages, illustrated Baltimore, William Wood & Company, 1937 Cloth, \$2 50

Handbook of Hygiene for Students and Practitioners of Medicine. By Joseph W Bigger, M D Octavo of 405 pages Baltimore, William Wood and Company, 1937 Cloth, \$4 00

The Harvey Lectures Delivered Under the Auspices of The Harvey Society of New York, 1936-1937 Series XXXII Octavo of 245 pages, illustrated Baltimore The Williams & Wilkins Company, 1937 Cloth, \$4 00

REVIEWED

The Postmortem Examination By Sidney Farber, M D Quarto of 201 pages, illustrated Springfield, Ill, Chas C Thomas, 1937 Cloth, \$3 50

I found this book to be an exceptionally clear, concise, and complete presentation of the procedures common to the autopsy room. While it definitely meets the need of a guide-book for a young pathologist it also presents the more modern autopsy technic in such a manner as to make it attractive and useful to anyone continuously engaging in necropsy work.

FLOYD S WINSLOW

Applied Physiology By Samson Wright, M D Sixth edition Octavo of 686 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$6 00

The sixth edition of Wright's Applied Physiology is a considerable enlargement over the previous. This enlargement was not only desirable but necessary. The increase

of some hundred pages greatly enhances the value of the book since there is less tendency for it to be encyclopedic than heretofore. More space is given to a discussion of the various topics of current interest, so that those readers desiring a synoptic review of recent advances in physiology will find the information concise and clearly presented.

G B RAY

International Clinics A Quarterly of illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment Medicine, Surgery, Neurology, etc Edited by Louis Hamman, M D Volume 1, 47th Series Octavo of 310 pages, illustrated, Philadelphia, J B Lippincott Company, 1937 Cloth, \$3 00

This issue of the Clinics is predominantly pulmonary, cardiac and nephritic, and contains articles on these subjects which are most informative. Hyperthyroidism and hypothyroidism are discussed in three articles.

ORDERING BOOKS

As a service exclusive to our readers, books published in this country may be ordered through the Business and Editorial Offices of the Journal (33 W 42nd St N Y C) postage prepaid. Order must be accompanied by remittance covering published price.

BOOKS

This volume contains articles by our Brooklyn conferees which are of the same high standard of studies always presented by these authors. It will be found instructive if studied.

HENRY M. MOSES

A Brief Outline of Modern Treatment of Fractures By H. Waldo Spiers, M.D. Second edition. Octavo of 137 pages, illustrated. Baltimore, Wilham Wood & Company, 1937. Cloth, \$2.00.

This is a second edition of a small, compact and concise volume on the treatment of fractures. It shows improvement over the first edition in that a chapter on *Fractures of the Mandible and Maxillae* has been added, and the chapters on hip, ankle and foot fractures have been expanded to more completely cover the subjects. The new illustrations are more numerous, and have been well selected to clarify the text. The work is valuable for the general practitioner, and should be placed in the hands of every intern doing duty on the ambulance or in accident wards. It puts the essential principles of fracture work in a most easily accessible form for quick and ready reference.

H. W. BENOIT

The Cardiac Glycosides A series of three lectures delivered in the College of the Pharmaceutical Society of Great Britain under the auspices of the University of London. By Professor Arthur Stoll, M.D. Quarto of 80 pages, illustrated. New York, Sandoz Chemical Works, Inc., 1937. Cloth.

This book consists of three lectures delivered by the author in the College of the Pharmaceutical Society of Great Britain under the auspices of the University of London. It is a scholarly survey of the subject, and includes previous investigations of the cardiac glycosides (better known in the U.S. as glucosides) as well as studies made by the author himself. The work deals chiefly with chemical and pharmaceutical research, especially of the newer glycosides with no reference, however, to their clinical application.

CHARLES SOLOMON

Woman's Prime of Life Making the Most of Maturity. By Isabel E. Hutton, M.D. Duodecimo of 150 pages. New York, Emerson Books, Inc., 1937. Cloth, \$2.00.

This little book has been written primarily for the lay public, and women generally will gain much useful information by a perusal of its chapters. Many of their fears will be allayed by the clear and useful knowledge set before them, and they will approach and live through a dreaded period of life with much more equanimity due to the teachings of this little volume.

The chapter on *Advice to Husbands* is especially valuable and it should serve to ease the tension which clouds many marriages at this period.

The medical profession, too, will learn much of interest and value from a study of these chapters, and will find it an excellent book to recommend to patients. The advice given is sound, it is based on well-founded opinion, and covers the subject thoroughly. Dr. Hutton is an author with considerable experience in psychology, which gives added value to a volume on this subject.

WILLIAM S. SMITH

Clinical Allergy Due to Foods, Inhalants, Contactants, Fungi, Bacteria and Other Causes Manifestations, Diagnosis and Treatment. By Albert H. Rowe, M.D. Octavo of 812 pages. Philadelphia, Lea & Febiger, 1937. Cloth, \$8.50.

This pretentious volume embraces the entire field of clinical allergy. All of the material contained in the author's former monograph on food allergy is included, but is now distributed throughout the work. Incorporated in the book are many chapters on recent phases of allergy, such as, allergic conjunctivitis, gastro-intestinal diseases, migraine, allergic dermatoses, facial and dental deformities, etc. The bibliography is complete and up to date. One gathers the impression, however, that the material has been assembled in great haste and without careful critical analysis. The author seems willing to accept almost any theory as to the allergic nature of various illnesses. The author's valuable contributions on food allergy, so well co-ordinated in his previous book, are lost in this attempt to cover the entire field.

MATTHEW WALZER

The Ocular Fundus in Diagnosis and Treatment. By Donald T. Atkinson, M.D. Quarto of 142 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$10.00.

This is a companion to Dr. Atkinson's book on external diseases of the eye which appeared not long ago. A brief history of the ophthalmoscope is given and the different methods of using it explained. The various normal fundi are described with their details. Anatomy of the retina with its vessels, the optic nerve and the choroid are briefly given and the various departures from normal described as they appear to the ophthalmoscopist. At the end of the volume are fifty-eight colored plates. These plates vary in value to the clinician, as some are much truer to life than others.

RALPH I. LLOYD

Elements of Orthopaedic Surgery By N. Ross Smith, F.R.C.S. Duodecimo of 246 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.00.

This small handbook presents the elements of orthopedic surgery in a straightforward and concise manner. Just the main essentials of each subject are given. Nothing is discussed in too much detail. There are enough illustrations to clarify the reading matter.

The book is especially valuable for nurses and masseuses who assist the orthopedist. Medical students, as well as general practitioners will find this little volume helpful.

CARMELO C. VITALE

A Text-Book of Mental Deficiency (Amentia) By A. F. Tredgold, M.D. Sixth edition. Octavo of 556 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$7.50.

Mental deficiency has not been given the attention it deserved. We have not taken it seriously from the medical point of view. The afflicted have been allowed to shift about for themselves with what help they could get occasionally from kindly disposed relatives. With increased public interest, and the organization of school clinics, better facilities for the care and study of such cases have been developing. In many schools special classes are provided, and for the more backward, special schools have been established at public expense. In this medium sized book, the author covers the various phases of the subject in an instructive way beginning with our concept of the condition, incidences and etiology, and following through with classification, psychology, pathology and a descriptive study of the different types with method of examination, diagnosis, prognosis, and treatment. There is a discussion of the clinical variations of primary and secondary amentia and so-called idiots savants. Moral deficiency is discussed in its relation to crime. It is a good book to add to the library of any person interested in child guidance and crime.

ARTHUR E. SOPER

Urological Roentgenology A Manual for Students and Practitioners. By Miley B. Wesson, M.D. & Howard E. Ruggles, M.D. Octavo of 269 pages, illustrated. Philadelphia, Lea & Febiger, 1936. Cloth, \$5.00.

This book is intended mainly, as the authors state, to be a primer for the amateur in roentgen urology. It is a brief but fairly inclusive study of the subject. In spite of its size there is sufficient mention of clinical findings and of urinary pathology to enhance its value particularly to the

general practitioner as well as a roentgenologist. The X-ray illustrations are numerous, films are markedly reduced in size. The reproductions are for the most part satisfactory. The illustrations are well annotated and worth careful study, particularly those dealing with traumatism of the urinary tract.

To all interested in urological roentgenology this volume will be worth careful perusal.

E. MENDELSON

Fundamentals of Human Physiology By the late J. J. R. Macleod, M.B. and R. J. Seymour, M.D. Fourth edition. Octavo of 424 pages, illustrated. St. Louis, The C. V. Mosby Company, 1936. Cloth, \$2.50.

This is a textbook of Physiology primarily for college students. It is clearly and simply written and brought up to date in this latest revision.

GEORGE B. RAY

The Intellectual Functions of the Frontal Lobes A Study Based upon Observation of a Man After Partial Bilateral Frontal Lobectomy. By Richard M. Brickner, M.D. Octavo of 354 pages, illustrated. New York, The Macmillan Company, 1936. Cloth, \$3.50.

This book reports detailed observations of a middle aged male patient from whom 116 grams of frontal lobe tissue were excised incidental to the removal of a large meningioma. The observations include the usual objective psychological examinations and reports of an informal character gained through day by day contacts. One is impressed on the whole with the relatively high degree of intellectual and personality preservation. Dr. Brickner has emphasized the quantitative rather than the qualitative nature of the aberrancies observed. He expresses the belief that all aberrancies of the patient are based upon a primary defect in executing complex syntheses of mental units. The relevant literature is capably woven into the presentation, which represents to date the most detailed and precise report available of the behavior of a human deprived of a considerable portion of both prefrontal lobes.

RUSSELL MEYERS

A Text-Book of Physiology By H. E. Roaf, M.D. Second edition. Octavo of 679 pages, illustrated. Baltimore, William Wood & Company, 1936. Cloth, \$6.75.

This text of Physiology is obviously written for the English student. There is distinctly less detail than in the usual text in physiology used by American students. Few references are given.

GEORGE B. RAY

BOOKS

November 1 1937]

The Diagnosis and Treatment of Arthritis
By Russell L Cecil, M D (Reprinted from
Oxford Monographs on Diagnosis and
Treatment) Octavo of 263 pages, illus-
trated New York, Oxford University
Press, 1936 Cloth, \$4.75

This book, a reprint from *Oxford Mono-
graphs on Diagnosis and Treatment*, is a
passionate, much-to-the-point considera-
tion of the diagnosis and treatment of
arthritis. Arthritis is first classified in a
practical workable manner. Various forms
of the disease are treated succinctly and in
turn. Theoretical considerations are merely
touched on rather than elaborated, the brief
but intelligible references to pertinent
theories are, however, supplemented by
rather complete bibliography. The book is
readable, it should be helpful to the every-
day practitioner of medicine who must read
as he runs. Years of practical experience
of a veteran student of the disease are
made readily available by this small vol-
ume. It is apparently written for the prac-
ticing doctor.

GEORGE E ANDERSON

Synopsis of Pediatrics By John Zahor-
ky, M D Second edition Duodecimo of
167 pages, illustrated St. Louis, The C V
Mosby Company, 1937 Cloth, \$4.00

This second edition has many changes,
and reference can be made only to a few
of them. The sections on Diagnosis and
Therapeutics have been brought up to date.
Some of the new sections are: Mental De-
velopment, Skin Diseases in the Newborn,
Nutritional Edema, Erythema Infectiosum,
Undulant Fever, Glandular Fever, The
Reticulo-endothelioses, Cysts of the Lung,
Subacute Bacterial Endocarditis, Amaurotic
Family Idiocy, etc. There is a new chap-
ter on Diseases of the Eyes and Ears.
Several color plates have been added, which
increase the value of the text.

In the chapter on tuberculosis the authors
have adopted one of the modern methods
of classification: 1 Infantile type 2 Juven-
ile type 3 Adult type 4 Extrapulmon-
ary tuberculosis. The main facts are re-
corded, and much controversial matter is
omitted, which is a relief after the stren-
uous debates that have been going on. We
could wish that surgical treatment had re-
ceived more attention.

Acute respiratory infection has a good
grouping under the main title, and special
infections are dealt with later. Mental de-
ficiency is approached from the general
standpoint, and the outline given is helpful
from that angle. We are unable to find
some of the things that are almost routine
in treatment, such as mandelic acid or
ketogenic diet in pyelitis, and sulfonamide
in hemolytic streptococcal infections.

It should be considered as its name im-
plies, a *Synopsis of Pediatrics*, and it is
remarkable how much material is con-
densed in its 357 pages. It well fulfills its
mission as a practical guide.

ARCHIBALD D SMITH

**Historical Notes on Psychiatry (Early
Times—End of 16th Century)** By J R.
Whitewell, M B Octavo of 252 pages Phila-
delphia, P Blakiston's Son & Co, 1937
Cloth, \$4.25

This is an interesting treatise describing
with some detail the evolution of psychiatry
through the ages. It includes a survey of
the literature in which the writings from
many languages are discussed and analyzed,
and an attempt made to compare ancient
description, nomenclature and diagnosis
with our present day knowledge.

A M RABINER

The Larynx and Its Diseases By Cheva-
lier Jackson, M D and Chevalier L Jackson,
M D Octavo of 555 pages, illustrated
Philadelphia, W B Saunders Company,
1937 Cloth, \$8.00

The publication of this book marks an
advent in the progress of laryngology.
There has been no work on the larynx re-
cently published that covers the subject for
the laryngologist in the manner that this
book does. It presents the entire subject,
as its name implies, beginning with anat-
omy and taking in every possible abnor-
mality, injury and disease. The *Notes on
Vursing Tracheotomized Patients* are es-
pecially valuable. This is indeed a most
complete volume, well arranged, replete with
sketches, drawings photomicrographs, illus-
trations, and a great number of colored
plates, which vividly reproduce the patho-
logical conditions as visualized by the
authors. One could go on indefinitely ex-
tolling the authors and their work. The
practitioner and laryngologist alike will find
the book a most useful addition to his
library.

SAMUEL ZWERLING

The Basis of Clinical Neurology The
Anatomy and Physiology of the Nervous
System in Their Application to Clinical
Neurology By Samuel Brock, M D Octavo
of 360 pages, illustrated Baltimore, Wil-
liam Wood & Company, 1937 Cloth, \$4.75

Dr Brock's work is an excellent com-
pendium of most recent literature dealing
with neuroanatomy and neurophysiology,
and reveals a broad insight into this im-
portant subject which lies at the base of
clinical neurology and is so important for
its proper understanding. It would appear
better adapted for the use of the neuro-
psychiatrist than for the medical student,
as the treatment of the subject is detailed,

and at the same time, the knowledge of the reader is assumed as to much that is elementary. The book is profusely illustrated by diagrams, and contains an excellent bibliography and a good index.

FREDERIC C EASTMAN

A Laboratory Manual of Physiological Chemistry By D Wright Wilson, Third edition. Octavo of 288 pages. Baltimore, The Williams & Wilkins Company, 1937. Cloth, \$2 50.

The manual is divided into two parts. The first deals with various tests for the detection of inorganic constituents such as phosphorus, calcium, magnesium, sulphur, chloride, and nitrogen. There are also chapters on preparation of standard solutions, hydrogen ion concentration, colloidal solutions, and tests for various carbohydrates, proteins, and fats. The second part of the manual deals with the chemistry of body tissues and fluids. This includes chemical tests of the saliva, gastric and pancreatic juices, milk, blood, bile, bone, muscle, and urine. The tests are concise, and without any burdensome details.

EDWARD H NIDISH

The Patient and the Weather By William F Petersen, M.D. Volume I, Part 2—Autonomic Integration, \$9 00 and Volume IV Part 1—Organic Disease Cardio-Vascular-Renal Disease Including a Chapter on Experimental Endocarditis by Alexander J Nedzel, M.D., \$10 00. Quarto, illustrated. Ann Arbor, Edwards Brothers, Inc., 1937. Cloth.

Both of these volumes are part of a series of monographs by the author. In them, as well as in the other volumes, he has advanced the assumption that meteorological alterations are of primary importance in the reduction of disease processes. This thesis has been expanded in the other books of the series.

In Part II of Volume I, the author discusses constitution, the limits of biological reaction as regulated by the autonomic apparatus, the meteorological environment and finally, studies of this integration as made evident in the observation of normal individuals living in the midst of storm tracks. It deals primarily with normal autonomic integration. In later volumes the author presents the clinical evidence for dysintegration (disease). For him there exists two main types of individuals—psychic and leptosomic—that react differently to meteorological alterations.

In Part I, Volume IV, the author is primarily interested in the demonstration that organic disease may take its origin from environmental stimuli. Even though Petersen is a pathologist he evidences his interest in the beginning of the disease of

major organs rather than in the final picture as determined at autopsy. To prove his point he has selected a series of commoner diseases and by means of charts, case histories, etc., he demonstrates the effect of the weather on the production of cardio-vascular-renal diseases. There is also appended a chapter by Dr A J Nedzel, Associate Professor in the Department of Pathology, College of Medicine, University of Illinois, on experimental bacterial endocarditis in dogs, emphasizing the importance of meteorological alterations in the production of an increased permeability of the valvular endothelium.

These volumes, as well as the others of this comprehensive and scholarly monograph, are printed in a new format which permits them to be sold at lower cost.

JOSEPH L ABRAMSON

Out of the Test Tube By Harry N Holmes, Ph.D. New edition revised and expanded. Octavo of 301 pages, illustrated. New York, Emerson Books, Inc., 1937. Cloth, \$3 00.

The revised edition of this work, prepared for popular and nontechnical consumption, tells the story of chemistry through historical development to its modern importance in various fields of industry. Despite its scope, considerable material is directly applicable to the field of medicine, much of such information being unusual and sometimes surprising because of novel treatment. Definitely not the usual type of book reviewed in these columns, the casual medical reader will find it holding his interest and frequently providing a new viewpoint for much of his medical thought.

IRVING M DERBY

Short Wave Diathermy By Tibor de Chohnoky. Octavo of 310 pages, illustrated. New York, Columbia University Press, 1937. Cloth, \$4 00.

Although the introduction of short wave therapy is comparatively recent, an extensive literature has already been contributed on the subject. Much of this and the claims made for the treatment border on the fantastic, so that a text of the kind here offered fills a definite want. This book is based on actual clinical experience, with the necessary considerations of physics uncolored and undistorted to fit any set theories. Opinions of various workers in the field of short wave therapy are quoted extensively. Conditions amenable to treatment are carefully considered, and application of the therapy clearly described in many instances. The book is well written, clearly printed and illustrated, and can be recommended to students and practitioners of physical therapy.

JEROME WEISS

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SPINAL ANESTHESIA

Its Use and Limitations

ORVILLE C KING, M D, *Philadelphia, Penn*

Spinal anesthesia (subarachnoid analgesia) we believe has a definite place among anesthetic methods. The basis for this statement is our personal experience with this method in 10,000 cases over a period of ten years. Following Pitkan's contribution in 1926, surgeons throughout the country accepted the spinal method enthusiastically, but after a few years many of the same group became adverse to its use. If one analyzes the literature on spinal anesthesia during that time, one can appreciate that such a reaction was to be expected, because cases were improperly selected for this anesthetic. We were led to believe, or, at least thought, that the spinal method should be allotted to the debilitated, emaciated, and shocked. These patients did not withstand this anesthesia, and many deaths followed, the casualties which resulted being most often the fault of the surgeon or the anesthetist, who selected such a method. In other words, we were unfamiliar with the actions of an anesthetic agent introduced into the subarachnoid space. Later, with the researches of such workers as Ferguson and North, Bower, Cotui, Fagan and Wrightman, Seevers and Waters, and many others—together with their clinical experience—the knowledge and the use of this method were increased and changes in technic were introduced.

Formerly, many writers reported complete failures as well as neurogenic complications, and the writer himself, in 1933,

reported 13 per cent of failures in 1500 cases.¹ In the last 7500 cases, there has not been one complete failure. Neurologic complications, which appear to be the result of faulty technic, are less frequent. Shamberg, reporting 14073 cases in 1935 where spinal had been used, had only three cases of transient peripheral neuritis.² Consequently, during the past five years, this anesthetic method has been given on a more scientific background with better results.

We view the use of spinal anesthesia in a conservative manner, and believe the area to be operated upon under spinal block should never be above the diaphragm, as it has been shown that shock increases with the height of the anesthetic agent.³ As the anesthetic tends to rise, the accessory muscles of respiration, being rendered useless, the danger is increased. If such height is reached to include the vital centers, especially the respiratory and cardiac ones, paralysis of their activity will follow.⁵ We do not agree with Koster and others who advocate spinal anesthesia for a higher field.

With only the area below the diaphragm to be utilized, the use of spinal is limited, and it possesses special advantages in surgery upon the gastrointestinal tract, gall-bladder, and spleen. Due to the extensive relaxation, tension upon the viscera is minimal and visualization is increased. Marked retraction of the

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester, May 25, 1937*

abdominal walls and large packs are unnecessary, the collapsed intestines acting as accessories to this. In addition, the closure of the abdomen is rendered less difficult, a factor in the prevention of postoperative evisceration and herniation.

Urological surgery, for the most part, is performed upon individuals the majority of whom are beyond fifty years of age, and who have an impairment of kidney function. This fact was apparent in the analysis of a group of 1534 cases, for 62.4 per cent were between the ages of fifty and eighty-eight. Bearing such facts in mind, the anesthetic agent should be one which will neither increase metabolism nor further kidney damage, and preferably one which does not induce the loss of consciousness, which is so frequently a cause of apprehension in those of advancing years.

With the exception of kidney surgery, the operative area in urological patients is confined to the bladder and prostatic bed, this being true in 63.1 per cent of the 1534 cases reviewed.

Consequently, the anesthetized field is low, the amount of the agent used is small—averaging seventy-five mg.—and there is practically no shock. For this reason transurethral surgery offers an ideal field for spinal anesthesia.

Operation upon the kidney is usually undertaken in younger individuals—between thirty and forty years of age—and a larger field block can be included without undue risk. Such patients under spinal anesthesia present to the surgeon a complete relaxation which enhances kidney exposure and allows for an easier delivery of this organ. There is greater access to the pedicle, consequently a better opportunity for secure ligation of its vessels. In Dr. Leon Herman's clinic spinal anesthesia has practically displaced all other forms. During the past year, eighty-five per cent of urological operations have been performed on patients so anesthetized.

Children's surgery offers another field for spinal anesthesia, and while we have not used it extensively, yet in those cases in which it has been tried, the results have been most satisfactory. Physiologically, children are ideal for this method.⁶ They are not apprehensive and are for the most part cooperative, and tolerate fairly large

amounts of the anesthetic agent. We have used the spinal method in very young babies when operating for the relief of pyloric stenosis, with fewer complications than with either local infiltration or ether. In children with generalized peritonitis, the relaxation which is given by the use of spinal block allows for a rapid exploration with minimum loss of tissue fluids. Nausea and vomiting rarely follow, thus promoting a smoother convalescence. For a thorough evacuation of the colon in cases of Hirschsprung's disease, the introduction of a small amount of procaine into the subdural space has no equal, and it can be used as a diagnostic aid in this condition.

For surgery upon the lower extremities, the spinal method has proven valuable for here, as in surgery upon the prostatic bed, the area to be anesthetized is low and only small amounts are necessary. In fractures, the relaxation permitted allows for complete reduction with the least trauma.

Dislocations, likewise, are readily reduced. Amputation, when diabetes complicates, is an indication for spinal anesthesia. It is also safer than local infiltration, as often there is present an inflammatory reaction with a resulting slough and ulceration.

Spinal anesthesia should never be used routinely, as this destroys individualization, the condition and needs of the patient are neglected, and carelessness soon supervenes both on the part of the anesthetist and the surgeon. Routine also tends to a disregard of the dangers of the method, and sooner or later an accident will occur, the blame being improperly placed on the method rather than on the anesthetist himself where it properly belongs. The novice should not be given the responsibility of administering this anesthesia, and yet only too frequently a Junior Intern is entrusted with the procedure. It follows that the success of spinal anesthesia increases with the anesthetist's training. The ease with which many spinals can be given soon gives the untrained a false sense of security and it must be remembered that once the agent is introduced, it cannot be removed, nor its action stopped. The anesthetist must be familiar with the reactions that may present themselves, consequently he must continually and intelligently interpret the

SPINAL ANESTHESIA

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clinical signs and symptoms as they occur and know how to recognize and properly treat the untoward ones.

We advocate training of these individuals who are to be responsible for patients anesthetized in this manner. This training should include the opportunity of inducing the anesthesia under guidance of the anesthetist shows himself capable of caring for patients so anesthetized. We all recognize that the mortality of spinal anesthesia decreases with the individual's increased experience, so poignantly shown by North.⁷

As our experience with spinal anesthesia has increased, we have learned that the contraindications to its use have become less in number. Since the shock factor depends primarily upon the number of white rami involved, the anesthetization of the upper abdomen has the greatest number of contraindications. Our guide for the selection of patients is the elasticity of the cardiovascular system, this being adjudged by a careful history and physical examination with special reference to this system, electrocardiographic and other special studies being made when indicated. Spinal anesthesia, just as any other anesthetic, is best employed in young, robust individuals. In certain pre-operative complications, however, making a choice of anesthetic agents necessary, we employ the anesthetic which will be the least harmful, the selection thereby becoming an individual problem, and not based on hard and fast rules.

Such complications as exist when there is pathology of the central nervous system or its environs must rule out subdural analgesia, infection at the site of puncture also contraindicates its use. In patients with marked cardiovascular disease, the area to be anesthetized must be confined to the lower abdomen. Hypotension is a contraindication when not present in an otherwise normal individual and especially when the hypotension is due to surgical shock or hemorrhage. Too frequently, the anesthetist and surgeon do not appreciate that a lowered tension generally follows when spinal is employed in the upper abdomen. When the systolic blood pressure drops to eighty or seventy mm of mercury with a corresponding diastolic decrease, this is reported to the surgeon who usually immediately orders

a stimulant, thus inducing an unjustifiable temporary rise in blood pressure. Without such measures the blood pressure will remain at this lower level until the procaine loses its effect, provided no great loss of blood has been encountered.

A better guide to the condition of the patient, we feel, is the pulse pressure, the pulse rate and rhythm, the even but lowered respiratory rate, and the patient's general appearance. Stimulating drugs should *only* be used preanesthetically, and we give ephedrine twenty-five mg in practically all cases. During the last 7500 cases no other stimulant has been given after the initial injection and there have been no deaths. Tovell of the Mayo Clinic reported the use of benzedrine as an inhalant to combat the fall of blood pressure, and while the number of cases was small, he did show an increase in twenty-nine of the thirty-one instances in which it had been given.⁸ Further studies in this field are necessary. If shock becomes severe the intravenous instillation of blood, glucose or saline should be employed, this having been necessary only nine times in our experience, each time due to loss of large amounts of blood.

Due to the sudden change of intra-abdominal pressure, care must be taken in the employment of spinal anesthesia for the removal of large abdominal masses. North,⁷ Veal and Van Werden⁹ comment upon this, each mentioning several cases in their own experience resulting in a mortality.

I would like to offer several suggestions for the care of patients who are to receive spinal anesthesia.

- 1 Assure the patient that it will be a painless procedure and make it so.
- 2 Proper evaluation of the blood pressure, pulse, respiration, and general appearance of the patient during the anesthesia.
- 3 Sympathetic assurance to the patient at all times.
- 4 The addition of another anesthetic agent before the spinal loses its effect, if indicated.
- 5 The use of the Trendelenburg position only when the operation necessitates.
- 6 Careful transfer of the patient from operating room table to his bed.
- 7 Careful observation postoperatively by a nurse trained in the care of patients who have received "spinal" until the effects of the anesthetic have disappeared.
- 8 Comfort and assurance of the patient at all times cannot be overemphasized.

Summary

Inexperience and improper selection of patients were the most important reasons for the earlier accidents in spinal anesthesia. We advocate special training for anesthetists using this form of nerve block.

Subarachnoid anesthesia is limited, in our opinion, to operations upon the area below the diaphragm.

The value of spinal procedure has been mentioned and individual selection of patients and their treatment especially advocated.

The contraindications have been given in some detail and several suggestions for the care of patients who have received spinal anesthesia has been outlined.

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References

- 1 King, O C *Ann Surg* February 1935
- 2 Shimberg M *Med Bull Vets Adms* 12 117, 1935
- 3 Ferguson, L K and North, J P *Surg Gynec & Obst*, February, 1931
- 4 Stout, R B *Am Jour Surg* 7 57 1929
- 5 Cotui F W *Inacs & Anal* July August 1934

- 6 Robson, O H *American Journal Surgery* 34 468, 1936
- 7 North, J P *Ann Surg* 101 702, 1935
- 8 Tovell, R M *Procedures of the Staff Meeting of the Maya Clinic*, 11 585 1936
- 9 Veal J R and Van Werden, B *Amer Jour Surg* 34 606 1936

HINTS ON RUNNING COUNTY SOCIETY PROGRAMS

Among the pet peeves of county medical society secretaries and chairmen of program committees are speakers who are too technical or who speak beyond the allotted time, and members who are always late for meetings, remarks *The Ohio State Journal*.

A determined effort at least to ameliorate these conditions is being made by the Program Committee of the Academy of Medicine of Cincinnati, which recently announced the following set of rules.

1 A maximum time limit of twenty minutes for all local speakers appearing on the Academy programs. Two discussants of each paper will be allotted a maximum of five minutes each.

2 The President of the Academy has been requested to enforce this time-limit rule by giving a two-minute warning signal and calling for conclusion of the paper or discussion when the allotted time is up.

3 All meetings will start promptly at 8 15 o'clock. The habit of starting late only encourages members to come late. If

it becomes known that meetings started promptly at 8 15 regardless of the size of the audience at that moment, members will be stimulated to get to the meetings on time.

4 Members of the Academy, who are invited to appear on the Academy programs, will please observe the general rule that papers should not be too technical. The purpose of the Program Committee is to build programs that will help the greatest number of members and be of special interest to the general practitioner.

The adoption of a similar set of rules by all county societies, properly observed by speakers and members, plus a courageous chairman, should provide the interesting, snappy programs which will insure a good attendance.

Incidentally, since the establishment of a Speakers Bureau by the Ohio State Association, there is no longer any reason for program committee chairmen to worry about where to get guest speakers occasionally for county society meetings.

WHY IT WAS

Two or three New York State physicians are qualified to fill the State Health Department post to which Dr Rosslyn Earp of Santa Fe, N M, has been appointed, but they were not attracted by the salary of \$4,500.

That is the reason given by Dr Edward S Godfrey Jr, state health commissioner, as reported in an Albany paper, for not appointing a New York man to the new job of medical editor in the division of health education.

In Dr Earp's acceptance of the appointment, Dr Godfrey said, the state should feel itself fortunate. The qualifications needed for the post, the commissioner pointed out, are a sound background in medicine and in public health, coupled with ability to write on both those subjects in a way that would attract lay readers.

All of these, Dr Godfrey said, are possessed by Dr Earp, whose training in medicine, health and literary work covers two continents.

THE ROLE OF ACUTE INFECTION IN HYPERTENSIVE CARDIAC FAILURE

JAMES R. LISA, M.D. and ALFRED RING, M.D., *New York City*
From the Pathological Laboratory, City Hospital, New York City Dept. Hospitals

It is common knowledge that only a certain percentage of hypertensive cases develop cardiac breaks. One naturally suspects therefore that an additional factor must be present in the cases comprising this group. This communication is the report of a study undertaken to determine the nature of the precipitating factor in the cardiac failure complicating some cases of hypertension.

Eighteen cases of decompensated hypertensive heart disease that came to autopsy at the New York City Hospital were made the basis of this study. Only those cases were accepted where the clinical features were predominantly cardiac in nature, where the systolic pressure was at least 150 mm Hg, and in which the histology of the kidneys revealed arteriolar sclerosis. There were eliminated from the series all cases with a recognized etiological factor of cardiac dysfunction, such as rheumatic fever and syphilis, cases of diffuse glomerulitis with hypertension, and cases of hypertension dying from uremia or cerebral hemorrhage. For control material several hundred hearts from autopsies performed between 1927-1934 were employed. They included cases of essential hypertension dying from uremia or cerebral hemorrhage, asymptomatic hypertension dying from unrelated conditions, diffuse glomerulitis cardiac cases of recognized etiology, and noncardiac cases, i.e., pneumonia, tuberculosis and malignancy.

In each of the cases the patient was under hospital supervision and therefore a satisfactory correlation between the clinical and pathological findings could be made. The evidence found and herein presented indicates infection to be the superimposed factor bringing about the cardiac breaks.

For the purpose of clarity and to indicate the character of the cases there is briefly summarized in Table I the sex, age, clinical type of case, course and manner of death.

Acute Lesions

The most frequent changes found in the hearts were the mottled gray-yellow and light brown color, the soft consistence, and the friability. Massive cardiac infarction was present in eight cases. It was usually limited to the left side of the heart, occasionally involving the right ventricle. Acute fibrinous pericarditis was present in five hearts. In four, it was diffuse, in half associated with an acute infarction. In one instance it was limited to the apex over an acute infarction. Acute coronary thrombosis was demonstrable only once. Spontaneous rupture of the aorta with hemopericardium was present in one case.

The histological examination revealed acute lesions to be much more frequent and more extensive than the naked eye appearance of the hearts would indicate. Miliary infarctions and necroses were present in ten hearts not affected by the gross infarction. Lesions of a similar character were found in the eight hearts with coarse infarction. In these hearts they were well beyond the acute lesion and frequently appeared to be in regions supplied, not by the artery feeding the site of acute infarction, but within the distribution of the opposite artery. An acute infectious myocarditis, either as a diffuse lesion or as miliary abscesses, was found in three cases. One of them was the case of aortic rupture. An acute fibrinous exudate limited to the apex of the pericardium at its reflexion over the roots of the large vessels was present in three cases, in one instance with myocardial abscesses. An acute medial necrosis involving the proximal portion of the right coronary artery was present in one case accompanied by miliary infarctions of both ventricles. An interesting feature of this heart was the distribution of the miliary infarctions. They were as extensive in the regions supplied by the left

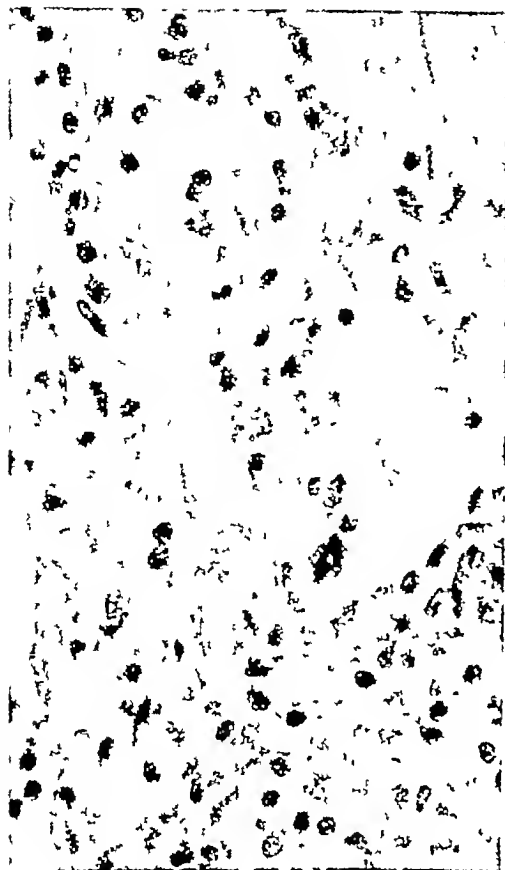


Fig 1 Acute infectious myocarditis. This type of lesion was found in ventricles in the case of sudden death from aortic rupture and in two cases with infection.

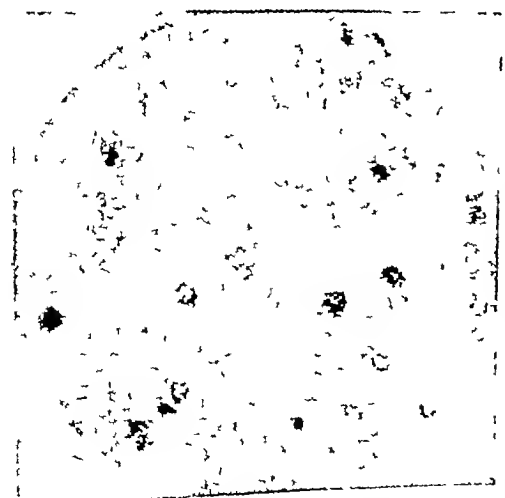


Fig 2 Molecular degeneration of myocardial fibers. Microscopic lesion of myocardium found even in absence of massive cardiac infarction.

coronary and anterior descending arteries as they were in that of the right coronary artery. Young arteriolar thrombi were present in two instances, neither having a recent thrombosis of a main coronary artery.

Chronic Lesions

A diffuse thickening of the epicardium of the auricles and milk spots of the ventricles were almost universal findings.

TABLE I

No.	Sex	Age	Clinical Type	Course	Mode of Death
1	M	60	Congestive failure	Improving	Infection
2	M	32	Congestive failure	Slowly progressive	Infection
3	F	80	Congestive failure	Progressive	Infection
4	M	60	Congestive failure	Improving	Sudden
5	M	67	Congestive failure	Slowly progressive	Sudden
6	M	70	Combined	Progressive	Infection
7	F	38	Combined	Progressive	Pulmonary edema with death within twenty-four hours.
8	M	70	Combined	Quiescent for three months	Sudden
9	M	46	Combined	Progressive	Infection
10	M	60	Anginal	Quiescent three months	Sudden
11	M	49	Anginal	Progressive	Sudden during episode
12	F	59	Anginal	Progressive	Sudden during episode
13	M	43	Anginal	Progressive	Episode with death within twenty-four hours.
14	F	68	Anginal	Progressive	Episode with death within twenty-four hours.
15	M	60	Anginal	Quiescent three weeks	Episode with death within twenty-four hours.
16	F	70	Anginal	Progressive	Episode with death within twenty-four hours.
17	F	68	Anginal	Progressive	Infection
18	F	55	Anginal	Progressive	Infection during episode

The ventricular milk spots were frequently much more prominent over the right side and especially over the right auricle. Healed infarction producing coarse myocardial scarring was present in twelve cases, in seven instances associated with an acute infarction. The condition of the superficial coronary arteries varied from normal or slightly atheromatous to intense sclerosis with canalized thrombosis. The anterior descending artery was particularly prone to display the more intense lesion.

The histological examination again presented evidence of more extensive lesions than were evident to gross inspection. Scarring of the myocardium—usually more marked on the left side—was fre-

quently present in the right ventricle, where it tended to be perivascular. Cellular reaction was frequent within and near the scars. It was predominantly lymphoid in character with a few plasma cells but all stages could be observed, from the acute polynuclear infiltration to the healed scar.

The intensity of the chronic cellular reaction beneath the epicardium proved to have one feature of particular interest. It was extremely dense at the apex of the pericardial sac in the region of the roots of the large vessels, the site of most marked involvement being over the vena cava. The location of this chronic lesion was similar to the acute focal lesion noted

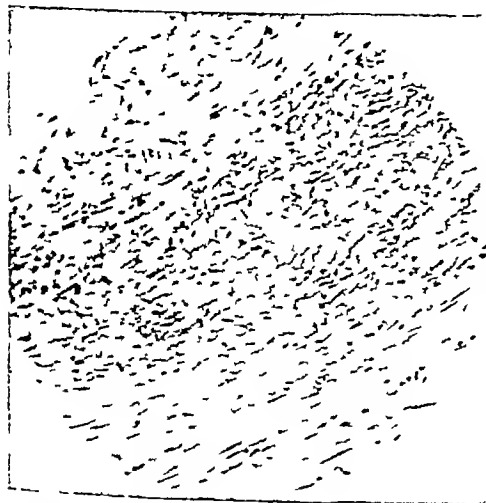


Fig 3 Acute medial necrosis of proximal portion of right coronary artery, case of sudden death. Widespread myocardial lesion was similar to Fig 2

above as occurring in three cases. The adventitia of the coronary arteries frequently had an intense reaction, somewhat similar in character to that observed at the pericardial apex, usually with a greater admixture of polynuclear cells, monocytes and hemosiderin-bearing phagocytes. This reaction was associated with atherosclerosis of the artery but was much more intense than is usually seen in this condition. Certain differences (to be published in a later communication) exist between these changes and those occurring in the coronary arteries of cases of hypertension complicated by syphilis. Suffice it to

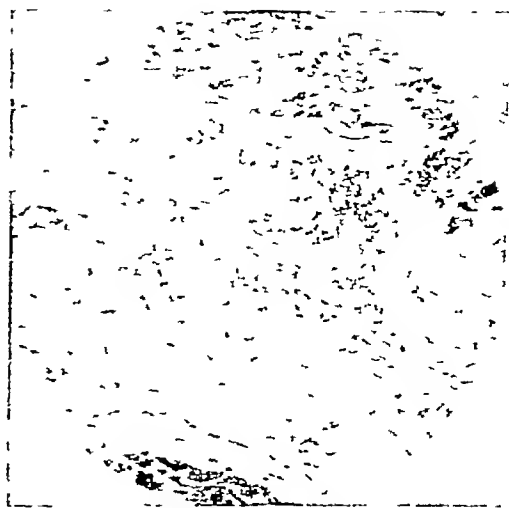


Fig 4 Marked perivascular scarring and dense chronic cellular reaction present in many cases

say at present, that they led to the conclusion that in the present series, the adventitial reaction was not syphilitic in nature.

To summarize, then, the following histological features suggest an infectious basis for the cardiac breaks:

- 1 Extensive acute myocardial degeneration associated with edema and acute cellular reaction
- 2 Chronic granulomatous lesion of the adventitia of the coronary arteries
- 3 Chronic granulomatous lesion of the

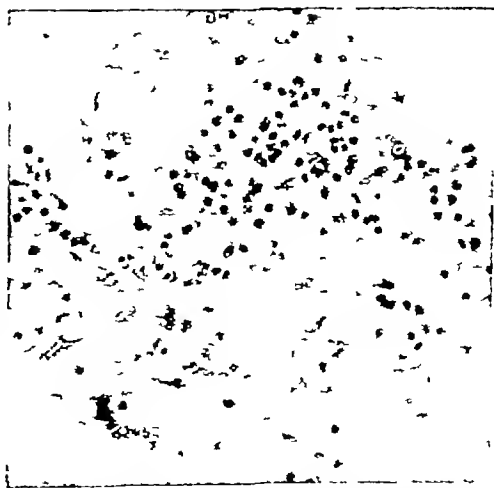


Fig 5 Chronic granulomatous lesion found at apex of pericardial sac, view taken from superior vena cava

epicardium, most intense toward the base of the heart

4 Acute diffuse pericarditis, in half the cases only attributable to an acute coarse infarction

5 Acute fibrinous lesion at the apex of the pericardial sac

Of value as an indication that the atherosclerosis of the coronary arteries *per se* was not the primal factor in the cardiac breaks was the great variability of the changes both in the larger arteries and the arterioles

There was further clinical and pathological evidence to support the hypothesis of an infectious basis for the cardiac breaks. The cases of sudden or rapid death were found the most instructive because the least complicated. Three patients with complete quiescence of cardiac symptoms for three months or longer died suddenly. Two had massive acute infarctions, one presenting an acute fibrinous lesion at the apex of the pericardial sac. One died of a ruptured aorta and had an acute infectious myocarditis. Sudden death occurred in three patients not completely compensated. Two had massive acute infarction, one with an acute thrombosis of the right coronary artery and acute focal glomerulitis. In the third patient, acute medial necrosis of the proximal portion of the right coronary artery was present, an acute diffuse fibrinous pericarditis, acute fibrinous pleurisy, and acute pyelitis (Tables II-III)

Five patients died within twenty-four hours of the onset of an acute break presenting the features of sudden left ventricular failure seen so frequently in coronary sclerosis. One patient had been completely free of cardiac symptoms for three weeks, mild coronary attacks had occurred in the others, although they were semiambulatory. Four had massive cardiac infarction. One of them, clinically quiescent for three weeks, had multiple acute arteriolar thrombi in the left ventricle and interventricular wall, the region involved by the acute infarction. In the fifth heart were widely distributed miliary lesions. Three of the five cases had acute lobar or confluent bronchopneumonia.

Of the eleven patients, therefore, dying suddenly or rapidly, there were in four of them acute pulmonary infections and in one an acute infectious myocarditis

TABLE II—SUDDEN DEATHS

No	Acute cardiac pathology	Associated pathological changes
QUIESCENT CASES		
4	Hemopericardium	Spontaneous rupture of aorta
	Infectious myocarditis	Acute pulmonary infarctions
8	Infarction left ventricle	Old cardiac infarction
10	Infarction left ventricle	Chronic purulent bronchiectasis
	Microscopic lesions RA LA IVW	Chronic pyelitis
	Fibrinous pericarditis SA region	
PROGRESSIVE CASES		
5	Acute medial necrosis right coronary	Acute pyelitis
	Microscopic lesions LV IVW	Acute serofibrinous pleurisy
	Fibrinous pericarditis	
11	Infarction IVW LV	Old cardiac infarction
	Recent thrombus right coronary	Acute focal glomerulitis
		Acute focal necrotizing arteriolitis
		Chronic pyelonephritis
12	Infarction LV IVW RV	Old cardiac infarction
RAPID DEATH WITHIN TWENTY FOUR HOURS OF EPISODE		
7	Infarction IVW	Old infarction LV
		Acute pulmonary infarctions
13	Infarction IVW	Old cardiac infarction
		Chronic pyelitis
		Acute bronchopneumonia
14	Infarction LA	Old cardiac infarction
	Microscopic lesions RA IAW	Dry gangrene of left foot
15	Infarction LV IVW	Old cardiac infarction
	Early arteriolar thrombi LV IVW	Chronic pyelitis
		Chronic purulent bronchiolitis
		Acute bronchopneumonia
16	Microscopic lesions LA	Old cardiac infarction
		Old splenic infarction
		Chronic purulent bronchitis and bronchiolitis
		Acute lobar pneumonia

TABLE III—DEATH FROM INFECTION

No	Acute cardiac pathology	Associated pathological changes
IMPROVING CASES		
1	Microscopic lesion of ventricles and auricles	Acute streptococcal sore throat
		Acute bronchopneumonia
		Acute fibrinous pleurisy
		Acute fibrinous pericarditis
		Acute splenic infarctions
		Acute miliary renal abscesses
PROGRESSIVE CASES		
2	As above	Chronic and acute suppurative pyelonephritis
		Chronic bronchiectasis
		Acute lobular pneumonia
3	Diffuse infectious myocarditis	Strept. hemo. septicaemia
	Mural endocarditis RV	Acute saddle thrombus of main pulmonary arteries
	Endocarditis of mitral and aortic	
6	Microscopic lesions of ventricles	Strept. hemo. septicaemia
9	Miliary abscesses LV IVW	Strept. hemo. septicaemia
		Sacral and iliac bed sores
		Acute pyelonephritis
		Acute pulmonary infarctions
17	Microscopic lesions of both ventricles	Impacted stone in ampulla of Vater
	Early arteriolar thrombi LV IVW	Acute suppurative hepatitis
	Fibrinous pericarditis SA region	Acute bronchopneumonia
		Acute suppurative nephritis
18	Microscopic lesions of ventricles and auricles	Strept. hemo. septicaemia
		Acute saddle thrombus of pulmonary arteries

It is of interest to note in the last case, that there had occurred a few days previously a mild pharyngitis. One other case of this group had evidence of infection in other organs, a focal glomerulitis. Six of the cases therefore had evidence of acute infection, most frequently intrathoracic. That the damage should be limited occasionally to the heart alone is not incompatible with the conception of infection. The tendency of superadded infection in the rheumatic heart to concentrate in previously damaged regions is conceded a normal course of events. The damage in the hypertensive heart is merely different in location, myocardial rather than valvular.

In the last group of seven cases, the gross pathological evidence was primarily that of infection. The clinical features in all of the patients were cardiac in nature, not those of infection as it ordinarily manifests itself. One case had an acute infectious valvular and mural endocarditis and diffuse infectious myocarditis. It was of interest to find in this case acute mural thrombi of the main pulmonary arteries. In a second case, miliary abscesses of the myocardium were found, the focus probably from decubital ulcers. The origin of the infection was demonstrable in three other cases—septic sore throat, suppurative pyelonephritis, and impacted gall-stone. A feature common to all the cases was acute broncho- or lobular pneumonia. The case of septic sore throat had in addition fibrinous pericarditis and acute infarctions of spleen and kidneys. In the case of impacted stone, the acute suppurative hepatitis was associated with young arteriolar thrombi of the myocardium, an acute fibrinous lesion at the apex of the pericardial sac, and embolic suppurative nephritis. A source of infection was not demonstrable in two cases. The pathological changes were those frequently seen however in streptococcal septicemia, petechial hemorrhages in the skin and serosal surfaces. It was of interest to find in one of them, acute mural thrombi of the pulmonary arteries similar to those present in the case of endocarditis.

The question which naturally arises in this last group is whether or not these infections are merely incidental terminal events bearing no relationship to the car-

diac breaks. Certain observations led us to conclude that there was a direct relationship. The clinical features were cardiac in nature, signs of infection were usually absent. Even when there was clinical evidence of infection the cardiac symptoms became greatly exaggerated and dominated the clinical features. The acute pathological changes in the hearts were more extensive than in cases of similar infections occurring in the noncardiac patient and were similar to those found in the cases of sudden or rapid death in the present series.

The last observation of interest was the chronic tubular bronchiectasis found in all cases. This site could well be the focus of infection affecting the heart. Some of the control material offered evidence to support this interpretation. Many of the hypertensive cases dying from a first cerebral hemorrhage, in whom the history of preceding cardiac dysfunction was entirely negative, had normal lungs except for acute terminal bronchopneumonia, unscarred myocardium, epicardium free of milk spots and the pericardial apex free of chronic granulomatous lesions.

From the pathological and clinical findings of these eighteen cases, a definite conception of the course of events leading to cardiac breaks in the hypertensive patient can be formulated. The focus of infection is usually the respiratory tract, either as a primary or metastatic process. The infection gains entrance to the heart through the apex of the pericardial sac, a region of rich anastomosis between the heart and lungs. The lymphatic channels seem the more important or at least the more constantly affected, resulting in the chronic granulomatous lesion of the pericardial apex and the acute fibrinous lesion occasionally found. A similar acute lesion is found not infrequently in the acute pneumonias terminating with cardiac failure. That the arterial system also appears to be the channel of involvement in some cases or at different times seems likely, judging from the distribution of the myocardial lesions in regions supplied by both arteries.

The study of the hearts discloses a definite series of events in the lesions of myocardial degeneration. The earliest change is a disturbance of the finer archi-

tectural pattern of the fiber. The cross striation undergoes a granular degeneration and swelling and changes from a delicate line to a series of coarse masses. The next stage is a disturbance of the relationship of the constituents of the fiber and replacement by a granular mass. The nucleus at this stage appears large and swollen. Then there occurs invasion by polynuclear cells, beginning disintegration of the muscle nucleus, disappearance of the granules, and a suggestion of local edema. Monocytes make their appearance, the polynuclear cells begin to disappear, and early peripheral connective tissue reaction sets in. Lymphoid cells appear and the monocytes disappear. With progressive fibrosis, the lymphoid cells become more and more scanty and finally only the scar remains.

The degree and extent of distribution of the acute parenchymal myocardial degeneration offered the most reliable

histological criteria of the clinical symptomatology. It seems more closely parallel to the clinical features than any other histological change. Neither the condition of the coronary arteries, the degree of hypertrophy, the extent of scarring nor the chronic cellular reaction appeared to offer so close a relationship.

Summary and Conclusions

Eighteen cases of decompensated hypertensive heart disease are reviewed. Histological evidence is presented that infection is the factor precipitating the cardiac breaks. The focus of infection is usually the lungs. The channels through which the heart is affected lie at the reflexion of the pericardial sac over the roots of the large vessels. The acute parenchymal myocardial damage offers the best histological criterion to the clinical cardiac features.

CITY HOSPITAL

A CHEMICAL BREATH-SMELLER

"A mechanical nose took three sniffs today and pronounced one man sober, another intoxicated," says a press dispatch from Baltimore.

Two sniffs were for a youth who gulped two ounces of liquor at a demonstration of the sobriety testing service.

The other was for a fellow subject who downed four ounces of whisky in a room with envious policemen gathered on all sides.

A bit of pink liquid in a tube gave the answers. It grew a shade or so lighter for mild intoxication, colorless for a "real drunk."

Dr R. N. Harger of Indiana University devised the "chemical smeller" and demon-

strated it before the convention of the International Association of Chiefs of Police.

The whole unit is built around reaction to alcohol of permanganate and sulphuric acids and water and a supply of toy balloons. The chemicals form the chameleon-like liquid and the balloons the "sniffers." Subjects breathe into the balloons. Then the balloons are placed on a tube. The air bubbles merrily into the liquid.

"When the quantity of breath required (to change color) is less than one pint, the subject is usually intoxicated," Dr Harger said. "With deeply intoxicated subjects, the color of the fluid is removed by only a few ounces of breath."

The New York Academy of Medicine is giving its third series of Lectures to the Larty from October 28 to May 26 on "The Art and Romance of Medicine." All meetings begin promptly at 8 15 p. m. The program is as follows:

October 28—"From Barber-Surgeons to Surgeons, The Evolution of Surgery as a Profession" Francis R. Packard, M.D., Editor of *Annals of Medical History*.

November 24—"The Meaning of Medical Research" Alfred E. Cohn, M.D., Member of the Rockefeller Institute for Medical Research.

December 23—"Dr. Watson and Mr. Sherlock Holmes" Harrison Stanford Martland, M.D.,

Professor of Forensic Medicine, New York University College of Medicine.

January 27—"Medicine in the Middle Ages" James J. Walsh, M.D., Extension Professor, Fordham University.

February 24—"The Search for Longevity" Raymond Pearl, Ph.D., Professor of Biology, Johns Hopkins University.

March 24—"The Physician's Contribution to Medicine." Edward Elway Free, Ph.D., Consulting Physician.

April 28—"Medicine and the Progress of Civilization" Nicholas Murray Butler, President, Columbia University.

May 26—"X-ray Within the Memory of Man" Lewis Gregory Cole, M.D., Consulting Roentgenologist, Fifth Avenue Hospital.

MANTOUX TEST IN PEDIATRICS

Increased Significance and Importance to the General Practitioner—Report of 1000 Cases

JOSEPH BATTAGLIA, M D and FRANK L. ROSEN, M D, *Brooklyn*
From the Pediatric Service of Kings County Hospital, Long Island College of Medicine Division

When there is so much of medicine that we do not understand it is a pity that we do not utilize the knowledge we already possess. Such is the case with the Mantoux test for the diagnosis of tuberculosis so widely used by the pediatrician, yet so rarely performed by the general practitioner.

For many years, in many communities, physicians have noted a marked decrease in the incidence of positive Mantoux reactions in children (adults also). As routine tests begin to show less "positives" so does the value of the test become enhanced for the diagnosis of tuberculosis. Since so few positive skin tests occur in infants and children, the value of this simple test is now so great, that the Metropolitan Life Insurance Company has undertaken a nationwide advertising campaign to inform the public about the tuberculin test. No large series report, based on the incidence of positive tuberculin tests, has as yet been published from Brooklyn, a community of 2,700,000.

This article is based on a clinical study of 1000 cases from the inpatient children's medical service of King's County which is Brooklyn's largest municipal general hospital and draws its patients from the lowest economic strata. It is well-known that these patients present the highest incidence of tuberculosis and any evaluator of statistics must bear this in mind, for as we go higher and higher in the socioeconomic scale, the incidence of tuberculosis and its parallel, the incidence of positive Mantoux reactions decline thus rendering the tuberculin test indispensable.

The testing material used was supplied by the Health Department of New York City for all city hospitals. It consists of a ten c.c. vial of salt solution and a capillary tube containing 0.1 c.c. of old tuberculin. When the two are mixed the resulting solution is a 1:1000 dilution of old

A tuberculin syringe is then used to inject 0.1 c.c. of this solution intracutaneously into the volar surface of the forearm, thus the amount of old tuberculin injected is 0.1 mg. In suspected cases of tuberculosis, if the reaction is negative to 0.1 mg., lower dilutions are used and we inject one mg. and if that is negative ten mg. of old tuberculin.* Whatever testing material remains in the vial after forty-eight hours is discarded and care is taken not to allow alcohol to remain in the tuberculin syringe. The test is read forty-eight hours after the injection and recorded as 1+, 2+, 3+, or 4+. The presence of an edematous area of at least five mm. in diameter is required for a positive reading.

In our series only two severe reactions were observed as a result of our thousand injections. Both of these occurred in children over six and the symptoms consisted of swelling of the entire arm with a temperature reaction of 102° F. The swelling and temperature subsided with no complications in one week's time. Strangely enough neither of these two cases was a proven clinical case of tuberculosis. The results of our investigation are shown in Table I.

Of the thousand cases, 67 per cent had positive Mantoux tests, 35 per cent had skin reaction without clinical evidence of tuberculosis, and 32 per cent had positive clinical evidence of tuberculosis. Of the positive Mantoux reactors, 47.7 per cent clinically or radiologically manifested tuberculosis. This finding gives the tuberculin test great significance. In discussing the importance of this test, Webb² states "The skin reaction constitutes at present the most important single diagnostic method in childhood tuberculosis." Thus certainly if only for economic reasons a tuberculin test should be per-

* It is a rare occurrence to obtain a positive reaction at a second or later test when the first is negative.¹

TABLE I

Age	No. of cases	Total positive Mantoux	No. of tuber proven	Total incidence positive Mantoux inc. tuber cases	Incidence positive Mantoux exc. proven tuber cases	Incidence of proven tuber in series by age
To 1 year	252	1	0	0	0	0%
1 to 3	230	14	0	0	0	0%
3 to 5	144	10	5	4%	4%	0%
5 to 7	130	14	9	11	3	4%
7 to 9	134	14	5	10	4	3%
9 to 12	110	14	3	13	7	3%
Total	1000	67	32	67%	35%	32%

TABLE II—SEX INCIDENCE OF POSITIVE SKIN REACTION

Sex	No. of cases	Total positive Mantoux	No. of tuber proven	Total incidence positive Mantoux inc. tuber	Incidence positive Mantoux exc. tuber	Incidence of tuber
Male	587	42	21	7%	3%	3%
Female	413	25	11	6%	3%	2%
Total	1000	67	32	67%	35%	32%

TABLE III—RACE INCIDENCE

Race	No. of cases	Total positive Mantoux	No. of tuber proven	Total incidence positive Mantoux inc. tuber	Incidence positive Mantoux exc. tuber	Incidence of tuber
White	869	51	23	5%	3%	2%
Black	131	16	9	12%	5%	6%
Total	1000	67	32	67%	35%	32%

TABLE IV—CLINICAL AND RADIOLOGICAL TUBERCULOSIS IN OUR SERIES

Distribution of tuber lesions	Tuber of lung (parenchymal—adult type)	Tuber of lung (childhood type—tracheo-bronchial form)	Tuber of lung (combined lung and tracheo-bronchial form)	Tuber meningitis
No. of cases	4	11	13	4

formed before a routine chest plate. For public health purposes in children, Mantoux tests should be performed routinely and then all positive reactors searched for signs of Koch infection.

The incidence of positive skin reactions (excluding tuberculosis) is practically the same in boys and girls—3.5 per cent in the former and 3.4 in the latter. The incidence of tuberculosis in our series was

3.5 per cent in males and 2.6 in females (Table II).

Drollet's³ incidence of positive Mantoux was thirteen per cent in females and fifteen in males. Webb² finds an incidence of 13.3 per cent in males and 15.7 in females. Myers⁴ and Chadwick⁵ in their series find the incidence slightly higher in males.

The total percentage incidence of positive Mantoux in our series was 5.9 per cent for white children and twelve per cent for black. Excluding the cases of clinical tuberculosis the percentages were 3.2 per cent in white children and 5.3 in the black (Table III).

The incidence of tuberculosis was 2.7 per cent in the white race and 6.9 in the black, thus the incidence relationship of positive Mantoux closely parallels the incidence percentage of tuberculosis. This is another extremely important routine reason for the general use of the tuberculin test since a fair estimate of the number of cases of clinical tuberculosis can be made from the percentage incidence of positive skin reactions in any community. The higher incidence of positive skin reactions in the black race has been noted by many. Drollet's³ reports 11.1 per cent positive in the white and 15.4 in the black.

Mantoux Reaction in Acute Infections

The percentage incidence of positive Mantoux tests in acute infections such as pneumonia, otitis media and upper respiratory infections is practically the same as the percentage incidence for the entire series excluding the cases of proven tuberculosis. Rheumatic heart disease and chorea show a higher percentage incidence of positive reactions. (However, these diseases occur in older children.) It is of great interest to note that in our series the percentage incidence in malnutrition and rickets is not higher than in the general group.⁶

These observations are not in accordance with Smith^{1,2} who believes that acute illness may suppress the Mantoux reaction. Drollet³ however presents two large series of cases one showing the positive reactors in three large Manhattan hospitals and the other the results of skin tests in various health clinics (Chart

I, curve C and D) Although the former group included a large percentage of children with acute illnesses and the latter a large group of children without acute illnesses, the incident rate of positive Mantoux was about the same in both groups. Our results and Drollet's observations suggest that the results of skin testing in acute illness needs further study.

The observation has repeatedly been made that the incidence of positive skin reactions is diminishing with the passing of years, as the death and registration incidence of tuberculosis decrease. Chart I is a complete chart of the surveys of positive skin reactions in and around New York City in different years. It graphically portrays the gradual fall of the percentage incidence in the different groups. Comparing the various curves, one sees a remarkable fall in the incidence of positive Mantoux through the years, and the unusually low percentage of positive reactions in our cases which can be explained by the generally noted fall of incidence, and also by the fact that earlier studies were made in Manhattan where the incidence of tuberculosis has been consistently higher than in Brooklyn where our studies were made. Drollet³ makes the following observation: "In 1921 the tuberculosis death rate of Manhattan was 130 per 100,000. In 1931 death was still 127 per 100,000, whereas in Brooklyn it had fallen from 87 to 51 per 100,000 or by 41% for the same years." In New York City in 1931 11,794 cases of pulmonary tuberculosis were reported with 4,370 deaths. In 1935, 8,796 cases were reported¹³ with 3,969 deaths.

It is a common knowledge that the incidence of tuberculosis and its result, positive tuberculin test, varies in different communities.

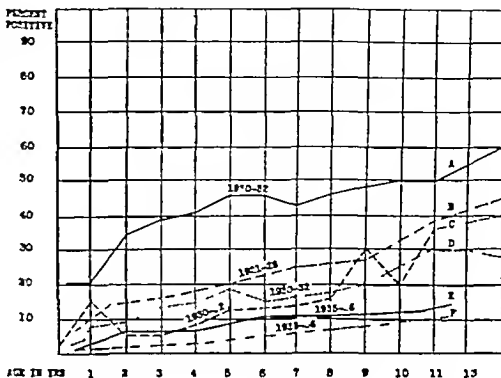
Chart II, a much-quoted table, has crept into many modern text books and articles. It is the basis for the general practitioner's erroneous concept concerning the Mantoux test, since the incidence of positive tests are so high that we learn little by performing it. The chart shows a rapid fall of incidence rates through the years. This observation must be qualified by knowledge that tuberculosis rates vary greatly in different communities.

In Chart I, we mentioned our 32 cases

of positive tuberculosis.* Table IV is included to show the distribution of the

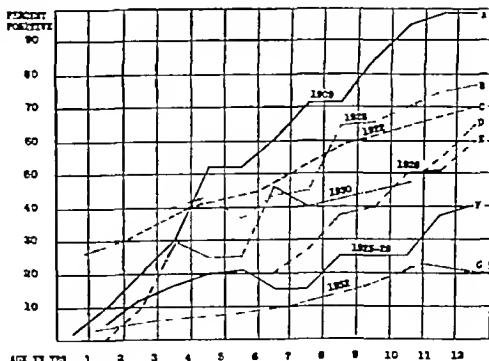
*It must be remembered that these cases are from the children's medical service. Other forms of Koch infection, in K.C.H. go to Orthopedics, gu E.N.T., etc.

CHART I—MANTOUX REACTION IN NEW YORK CITY, 1921-1936



- A—6429 cases in eight tuberculosis clinics, over fifty per cent contacts. A large number of contacts makes this an unsuitable curve for comparison.³
 B—7668 cases in Bellevue Hospital¹ (New York City)
 C—6080 cases in three Manhattan hospitals.³
 D—1965 cases in health clinics.³
 E—Author's series—all positive Mantoux (1000 cases)
 F—Author's series—positive Mantoux excluding cases of proven tuberculosis (1000 cases)

CHART II—MANTOUX REACTION IN OTHER CITIES, 1909-1932



- A—Vienna⁹
 B—Philadelphia⁷ (2678 cases)
 C—Graz¹¹
 D—London⁸ (1003 cases—twenty-eight per cent contacts—1930)
 E—Minneapolis⁴ (2045 cases)
 F—San Francisco¹⁰ (3500 cases)
 G—Chicago² (1000 cases)

tubercular lesions. All these cases received the benefit of repeated x-ray studies and many were proved by the finding of the tubercle bacilli or at autopsy. *477 per cent of our positive Mantoux show clinical tuberculosis for all age groups.* Up to seven years of age, sixty per cent of the positive Mantoux were in clinically proved cases of tuberculosis. From seven to twelve, only twenty-nine per cent of positive skin reactions were in cases of tuberculosis.

Thus a child with a positive Mantoux should always be thoroughly examined for tuberculosis.

In 1920, the death rate from all forms of tuberculosis in the United States was 114 per 100,000. In 1933 this figure had fallen to 60 per 100,000. These figures show that definite progress has been made in the struggle against this dreaded disease. The lowering of incidence of tuberculosis is reflected in the lowering of the percentage rates of positive skin reactions. This diminution increases the importance of this simple diagnostic procedure and the adoption of its widespread use in general practice may mark the next step forward in the progress of what may be called the battle against the white plague—tuberculosis.

Summary

1 The results of a study of tuberculous skin reactions in 1000 admissions at Kings County Hospital are presented.

2 The age incidence of positive skin reaction has been shown.

3 The race incidence shows the colored race to contain about twice as

many positive reactors as the white race.

4 The incidence of positive reactions is equal in both sexes.

5 The falling rate of positive skin reactions from 1921 to 1936 for New York City has been graphically portrayed.

6 The results of Mantoux tests in different cities of the world show that the incidence varies greatly in different places.

7 A plea is made for routine tuberculous skin testing of children because of the simplicity of the test and the great diagnostic significance it has.

8 For economic reasons, Mantoux tests should always be done before routine chest plates (of children).

Acknowledgment

We are indebted to Dr. Paul L. Parrish and H. B. Logie for their assistance in establishing a cross card index based on the "Standard Classified Nomenclature of Diseases" which facilitated the gathering of these statistics.

713 BUSHWICK AVE.
681 OCEAN AVE.

References

- 1 Smith, C. H. *Amer Jour Dis of Child*, 28 1137, 1929
- 2 Webb *Amer Rev Tuberc*, 26 582, 1932
- 3 Drollet *Ibid*, 30 1, 1934
- 4 Harrington and Myers *Ibid*, 14 454, 1926
- 5 Johnson and Chadwick *Ibid*, Nov 19, 1929
- 6 Battaglia and Rosen. Unpublished data
- 7 Opie, McPhedrin et al. *Amer Rev Tuberc*, 20 421, 1929
- 8 Dow and Lloyd. *British Med Jour*, August 1, 1931
- 9 Hamburger and Monti. *Muencher Med Wchnshr*, 56 449, 1909
- 10 Dickey and Seitz. *Amer Rev Tuberc*, 23 13, 1931
- 11 Barchetti. *Arch F Kinderh*, 71 180, 1922
- 12 Smith, C. H. *Annals Int Med*, 8 1091, 1935
- 13 City of New York. Department of Health *Quarterly Bulletin*, 4 11 1936

'O, IS THAT SO?

The world has long been used to statesmen with brains of the "O" or zero type. Now a Japanese doctor has thrown the officials of Nippon into a panic by declaring that all diplomats should have "O" type blood. We can imagine the rush of agitated officials to the laboratories, and the deep silence when the blood turns out to be some other type. The news dispatch from Tokyo runs:

Dr. Tsunemasa Nugaki, medical adviser to the Foreign Office, urged the government today to pick its diplomats by blood type—the "O" kind.

Dr. Nugaki explained that there were four

distinct types of human blood, "A," "B," "AB," and "O." He added that only "superior" men like Prince Fumimaro Konoye, the Premier, who possesses "O," type blood, were fitted to fight Japan's diplomatic battles.

"These men combine level-headedness with quick, unerring decision, perseverance and a gentle mien cloaking an iron will," said Dr. Nugaki.

"Unlike fortune-telling, the blood type test is completely scientific."

"We no longer want pale, anemic, genius-type fellows in the government, but robust chaps who are vigorous and full-blooded."

The doctor's dictum created a sensation in government departments.

ANALGESIA AND ANESTHESIA IN OBSTETRICS

Pentothal Sodium, Cyclopropane, and Vinyl Ether

WESLEY BOURNE, M D, *Montreal*

It is an old problem—that of the relief of pain in obstetrics—and its solutions are still a subject of great controversy, which has been stimulated lately by the increasing demands of our women excited by the palpably specious assurances of some physicians and the active interests of drug houses. However, we must not cease to seek suitable measures of assuaging the suffering, that is without harm to mother or child. Indeed it is our bounden duty so to do. Let us abide by the common maxim, with end and aim to make abstruse things simple.

As a composite of experiences it is culled that of the many drugs which have been used in obstetrics for their analgesic and anesthetic effects, almost any of them may be allowed from dependable hands, but for more universal employment we must try to find those drugs which are least injurious.

Variable degrees of analgesia, amnesia or hypnosis may occur from the use of such substances as morphine, scopolamine, paraldehyde, or the barbiturates, and also from the inhalation of gaseous or volatile anesthetics, in low concentrations. The advantages are well-known, but at the same time we are fully aware of the unfavorable conditions which may ensue. I shall not discuss relative merits too exhaustively but confine my remarks more particularly to one of the newer barbiturates, namely pentothal, and to the newer anesthetics, cyclopropane and vinyl ether (vinethene).

Great expectations were engendered from the work of Irving, Berman, and Nelson¹ setting forth the benefits of nembutal. These have not been fulfilled, on the contrary there are many affirmations that even in combination with scopolamine, nembutal may cause such excitability as to necessitate the caging-in of the patient and the employment of a constant attendant. The one is not practical for ward cases, and the other is not

conducive to good obstetrics. What is more, frequently uterine contractions become definitely weakened, labor is prolonged, and the use of forceps is made indispensable. Again, often the infant is depressed to such an extent that extreme resuscitative measures are essential.

Pratt, Tatum, Hathaway, and Waters² have found that pentothal causes *no* *cicitement*, depresses respiration only in anesthetic doses, does not disturb the circulation, and that, as this drug is broken down rapidly in the body, it closely resembles the so-called controllable anesthetics. Accepting their report, MacPhail, Gray, and I³ proceeded to use this thiobarbiturate* in the early stages of labor. From 116 cases we find that there are no noticeable toxic effects on mother or fetus, that the maternal heart rate is invariably slowed, seemingly due to the lessened excitability, and that when the fetal heart rate is within normal limits it is not changed by pentothal, but should it be unusually rapid, it becomes somewhat reduced by this drug. All the infants of this series breathed spontaneously. With respect to the influence of pentothal on uterine contractions, the duration of labor is markedly shortened, an average of nine hours for primiparae and of 4½ hours for multiparae. Concerning excitement, the woman is quiet, cooperative, easy to examine, and does not need special attention. We believe that a woman does not really want to forget all about her childbirth and that from a psychical point of view it is better for her to remember something of her travail. She is no hedonist. As the drug under consideration does not produce a very pronounced degree of amnesia, we have latterly caused this to be enhanced by the administration of a small dose of scopolamine (grs 1/150 to 1/100 at the

*The Pentothal Sodium was kindly supplied to us by Abbott Laboratories

time of the first portion of pentothal. As soon as labor pains are definitely established, four grains of pentothal in capsule are given by mouth. One-half hour later three grains more are allowed and this amount is repeated at the end of one hour. Usually the patient becomes quiet, sleeps in between the contractions, and does as she is told willingly. Every half to one hour, two or three grains more may be given if the effects seem to be wearing off.

Perhaps the substitute sulphur in the urea part of barbiturates may remain, and former oxygen lose its post, perhaps so to settle a heated controversy.

One should take care sedulously not to overestimate the usefulness of any one drug especially among those which have for their chief action depression of the cerebral cortex, as at its best this structure possesses some functions with characteristics which easily become quite protean. Just as there is considerable choice among the so-called analgesics, so too there are several anesthetics which themselves are useful for analgesia. We have long known the benefits of nitrous oxide in this respect, how that if anoxemia is avoided it may be given intermittently during labor, starting quite early, without harmful effects. With the advent of cyclopropane⁴ it was found that an abundance of oxygen may be given with this gas and anoxemia is entirely out of the question. Furthermore, it has been shown that in dogs cyclopropane anesthesia does not damage the normal liver, even after repeated administrations, nor after long periods, that it does not increase the liver damage purposely produced by chloroform, nor impede the usual recovery of the liver from chloroform poisoning, even when the cyclopropane anesthesia is prolonged, and that it does not cause liver impairment in starved dogs even after a three hour period of anesthesia.⁶ Again while cyclopropane was being used in obstetrics,⁷ liver function tests were carried out in three normal cases and in one of eclampsia. Practically no dye was retained in the blood of the normal women after the administration of cyclopropane, and as the liver of the eclamptic woman was damaged to an extent of more than fifty-five per cent before delivery, the damage

was not augmented by cyclopropane, there being less than fifty per cent dye retention in her blood twenty-two hours after anesthesia. At this time cyclopropane was used to produce intermittent analgesia during each uterine contraction for varying lengths of time in a number of women. In each case the termination of labor was conducted under cyclopropane anesthesia, from which recovery was devoid of untoward effect to mother or child. Griffiths,⁸ one of the first to use cyclopropane, is convinced of its superiority over other anesthetics in obstetrics. Very recently, he, with Morgan and Eaman,⁹ have "compared 100 cases of caesarian section under cyclopropane anaesthesia with 100 similar operations under other types of anaesthesia, principally ethylene and ether, and report very marked improvement in the postoperative course of the cyclopropane cases, particularly in regard to the factors of vomiting and abdominal distention. There was no case of adynamic ileus in the cyclopropane series whereas this had previously been a serious and fairly common complication, and there was no maternal death in the cyclopropane series. The cyclopropane cases required an average of three days less hospitalization. It is presumed that less disturbance to bowel function and less uterine hemorrhage are the principal reasons for smoother convalescence following cyclopropane anaesthesia."

I believe that the salutatory feature about the use of cyclopropane in obstetrics is that an excess of oxygen is given with it.

So much for a brief consideration of the gases—nitrous oxide and cyclopropane—so much for their advantages in obstetrics, but they may not be administered by other than competent individuals. Allow me to warn against self-administration of these gases,^{10 11} that is, by the woman herself from a "fool-proof" machine. While the dangers of anoxemia have been known for a long time, it is of interest to note that very recently Courville¹² of the Department of Neurology, Los Angeles County General Hospital, in a monograph on "Asphyxia as a consequence of Nitrous Oxide Anaesthesia" has given an exhaustive account of his studies of the effects of this form

of anesthesia on the brain in a series of thirteen cases, nine of which terminated fatally. In these a critical examination of the cerebral tissues was made. Regardless of the circumstances, the clinical symptoms and the pathological findings are the effect of *asphyxia* and are not due to any toxic effect of the nitrous oxide itself. He gives a detailed account of the damage done to the cortical cells and points out that much of this is permanent. It is easy to see that there will be a considerable number of instances wherein severe disturbances may take place without fatality. Whereas *asphyxia* is quite out of the question in cyclopropane anesthesia, yet another equally serious consideration presents itself here, namely, that cyclopropane is an extremely potent drug producing anesthesia so rapidly that it is very difficult to recognize the stages of this condition. Perhaps enough has been said to show that although these two gases occupy positions of priority in obstetrical analgesia and anesthesia when properly used, yet their employment will not become universal.

It seems fair to say that at long last we have a substance which is safe for common use, this substance is vinyl ether (called vinethene). That it possesses anesthetic properties was first demonstrated by Leake and Chen¹³ in 1930. Later Leake, Knoefel, and Guedel¹⁴ found vinyl ether to be preferable to chloroform and ethyl ether. They declared that dogs are more easily anesthetized, recovery takes place more quickly, nausea and vomiting are less marked, and that there are no significant pathological effects on the various organs. Then Goldschmidt, Ravdin, Lucke, Muller, Johnston, and Rugh¹⁵ showed, among other things, liver necrosis in some dogs after prolonged vinyl ether anesthesia, but no liver necrosis in monkeys, as well as no untoward effects on respiration, the circulation, the liver or the kidneys after several hundred operations of a very varied nature on patients of all ages and conditions. It was then that it occurred to me that this drug might be appropriate for anesthesia in obstetrics. Accordingly it was applied in this capacity and the facts¹⁶ of the first administration of vinyl ether to parturient women show that it is easy to give and

practically harmless. Since that time additional studies have been made and reported¹⁷⁻²⁰ so that now with confidence vinyl ether may be said to be "particularly suitable for obstetrical analgesia and anaesthesia in general practice on account of its safety for mother and child, its ease of administration, the rapidity of its action, the satisfactory maintenance of any desired degree of narcosis, and the early uneventful recovery."

The additional studies mentioned above, included those on the liver,¹⁷ from which it was found that vinyl ether anesthesia in normal dogs does not alter the liver function appreciably, it does not enhance the liver function damage produced previously by the inhalation of chloroform nor does it delay the period of recovery from this damage, and that its effects upon the liver function in partially starved dogs is not appreciably different from that produced in normal animals. These findings have been confirmed separately by Molitor²¹ and by Goldschmidt, Ravdin, and Lucke,²² each of the two sets of research being conducted differently from each other and from ours. Additional studies¹⁸ gave, as well, a most striking comparison between the liver function test findings following vinyl ether anesthesia in parturient women and those after chloroform administered under identical circumstances. There was dye retention in the chloroform cases, indicating definite liver damage, while the administration of vinyl ether was followed by very slight dye retention and consequently practically no liver impairment.

From experiments on lower animals Molitor has shown that mixtures of vinyl and ethyl ethers may have certain advantages. Accordingly we²⁰ were led to their employment in obstetrics and can recommend the mixture of twenty-five per cent vinyl ether with seventy-five per cent ethyl ether to be given by the "open" method. In this manner analgesia is attained, at least from a practical prospect, just as quickly as it is with vinyl ether alone and the usual disadvantages of ethyl ether induction of anesthesia are abrogated. This solves the problem of tremendous waste from rapid volatilization which occurs when vinyl ether alone is used by the "open" method. Hence the utility of an *improved ether* in obstetrics

for the general practitioner, made easy of application, relatively inexpensive, and quite safe—i.e., in comparison with chloroform or ethyl ether by itself. Although we have given this mixture through a simplified apparatus (made specially for vinyl ether by the Foregger Company of New York City) which consists of a closed system, fitted for supplying oxygen and for absorbing carbon dioxide, it is hardly necessary to use vinyl ether as part of a mixture in this fashion, for the simple reason that with a "closed" machine one is not concerned with the question of volatility. Notwithstanding all this, the fact still remains that it is infinitely better to administer this drug with oxygen. One cannot em-

phasize too much the advantages of giving oxygen with anesthetics, especially in obstetrics

Conclusions

I would at the present time recommend pentothal sodium for the early part of labor, then, from competent hands, nitrous oxide and oxygen for intermittent analgesia should the pains become severe, and cyclopropane anesthesia for the final stages

For those who are less experienced and for the general practitioner, vinyl ether is highly recommended to produce analgesia and anesthesia following the use of pentothal

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References

- 1 Irving, F. C., Berman, S., and Nelson, H. B. *Surg. Gyn., and Obst.* 58 1, 1934
- 2 Pratt, T. M., Tatum, A. L., Hathaway, H. R., and Waters, R. M. *Amer. Jour. Surg.* 31 464, 1936
- 3 MacPhail, F. L., Gray, H. R., Dunstan, and Bourne, Wesley. *Canad. Med. Assn. Journal* November 1937
- 4 Lucas, G. H. W. and Henderson, V. E. *Canad. Med. Assn. Jour.* 21 173, 1929
- 5 Stiles, J. A., Neff, W. B., Royston, E. A., and Waters, R. M. *Anaest. and Analg.* 13 56, 1934
- 6 Raginsky, B. B. and Bourne, Wesley. *Canad. Med. Assn. Jour.* 31 500, 1934
- 7 Bourne, Wesley. *The Lancet*, p. 20 July 7, 1934
- 8 Griffith, Harold R. *Canad. Med. Assn. Jour.* 31 157, 1934
- 9 Morgan, Geo. S., Eaman, S. G., and Griffith, Harold R. *Anaest. and Analg.* 16 113, 1937
- 10 Minnitt, R. J. *Brit. Jour. of Anaest.* 11 148, 1934
- 11 Knight, Ralph T. and Urner, John A. *The Journal Lancet* 56 608, 1936
- 12 Courville, Cyril B. *Medicine* 15 129, 1936
- 13 Leake, C. D. and Chen, R. T. *Proc. Soc. Exper. Biol. Med.* 28 151, 1930
- 14 Leake, C. D. and Knoefel, P. K. and Guedel, A. E. *Jour. Pharmacol. and Exper. Therap.* 47 5, 1933
- 15 Goldschmidt, S., Ravdin, I. S., Lucké, B., Miller, G. P., Johnston, C. G., and Ruigh, W. L. *J. A. M. A.* 102 21, 1934
- 16 Bourne, Wesley. *The Lancet* p. 566 March 17, 1934
- 17 Bourne, Wesley and Raginsky, B. B. *Brit. Jour. of Anaest.* 12 62, 1935
- 18 Bourne, Wesley and Sparling, Douglas W. *Anaest. and Analg.* 14 4, 1935
- 19 Bourne, Wesley. *Jour. Amer. Med. Assn.* 105 2047, 1935
- 20 Bourne, Wesley, McDowell, J. F., and White, I. C. *Anaest. and Analg.* 16 46, 1937
- 21 Molitor, Hans. Personal communication, quoted in Reference No. 20
- 22 Goldschmidt, S., Ravdin, I. S., and Lucké, B. *Amer. Jour. Med. Sci.* 189 155, 1935

THE VALUE OF SNUFF TAKING

The practice of snuff taking has declined greatly in England. It was at its height in the eighteenth century and continued down to the middle of the nineteenth, when it fell away. Letters in the *Times* from Sir Buckminster Brown (a retired urologist and a Surgeon) advocating snuff taking as a prophylactic against colds in the head has revived interest in the subject and led to a paper on it, which was read by Dr. J. D. Rolleston before the Society for the Study of Inebriety. As told by the London correspondent of the *Journal of the AMA*, he said that he habit, which once was in vogue in court circles, seemed likely at one time to find its last refuge in infirmaries and mental hospitals. He suggested that one reason for its disfavor was the great objection of Queen Victoria to any one sneezing in her presence. Sir Buckminster Brown

told the society that his experience with the virtues of snuff dated from his early days in practice when, after operations more or less continuously until the afternoon, when he had to start on his car-freshening and useful. He attributed his immunity from colds in the head to the action of snuff in stimulating the nasal mucous membrane and producing a flow of mucus. Pepper and other irritants would of course also induce sneezing, but tobacco snuff was more than an irritant. It was agreeable to most people, stimulating at first and then narcotic and astringent to the mucous membrane. His advice to the audience was "If you think you are sickening for a cold in the head, take a good pinch of snuff before going to bed and a pinch of snuff quite well in the morning," you will awake

TELANGIECTASES OF THE BRAIN STEM

Associated with Obstructive Hydrocephalus and Mental Deterioration

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From the Neurological Service of the Hospital for Joint Diseases, and the Neuropathological Laboratory of the Montefiore Hospital

Telangiectases may accidentally be found in the central nervous system, especially in the pons and medulla oblongata, but rarely do they give rise to clinical symptoms. According to Virchow,¹ the floor of the fourth ventricle is a favorite site for these small, non-fully formed vessels commonly found in the skin or mucous membranes. Cushing and Bailey² found only one case of telangiectases with neural signs from a collection of 2,000 verified tumors of the central nervous system. The accidental discovery of these dilated channels in the floor of the fourth ventricle and near the iter in a case without localizing signs which led, however, to a picture of a progressive mental deterioration not unlike dementia paralytica or Alzheimer's disease, warrants this report.

Report of Case

E V P, a woman, aged fifty-eight, was admitted to the Hospital for Joint Diseases on March 25, 1934 with a history of generalized weakness for about five years. One year prior to her death she became bed-ridden and showed marked memory defects. The Wassermann of the blood at this time was negative, that of the spinal fluid was positive. She received extensive antisiphilitic therapy, without benefit.

Upon admission to the hospital she showed evidences of severe mental deterioration characterized by gross memory defects. The clouding of consciousness became marked just before exitus. Orientation was markedly disturbed in all spheres. She confabulated a great deal and had grandiose ideas. The neurological status revealed equal pupils which reacted sluggishly to light and well in accommodation. There were no extracocular palsies. The fundi oculi were normal. A right-sided facial palsy of the central type and dysarthria were present. There were flexion contractures in both upper and lower extremities. The deep reflexes were hyperactive, the abdominal reflexes were absent, a Babinski toe sign was present bilaterally. There were no gross sensory

defects. There was incontinence of both sphincters.

The Wassermann of the blood and spinal fluid was negative. The spinal fluid was clear, came under normal pressure, contained four cells, and its protein content was normal. The routine examination of the blood, urine, and blood chemistry was normal. Because of the poor condition of the patient, encephalographic study was not performed. An irregular temperature, varying from 99 to 104° F, was noted during her eighteen day stay in the hospital. The terminal picture was one of semistupor, respiratory and cardiac insufficiency.

Autopsy As the findings in the other organs had no bearing on the case, only those of the central nervous system will be reported.

Gross examination *Central nervous system* The frontal convolutions were slightly atrophic, more on the left. The cerebral vessels were normal. The brain was cut coronally. There was marked dilatation of the entire ventricular system with shrinkage of the white matter (Fig 1-A and B). The ependyma of the lateral ventricles contained numerous verrucae. The aqueduct was obstructed by dilated vessels situated on its floor and lateral walls (Fig 2-A and B). A needle passing from the aqueduct to the posterior part of the third ventricle could barely go through. Similar engorged vessels were noted in the floor of the fourth ventricle (Fig 3-A and B). The medulla oblongata at that level had a slightly lacunar appearance. *Spinal cord* The dura was normal. There was a slight translucency of the spinal cord in the cervical and dorsal regions. Sections from all cortical convolutions, corpus callosum, the pons, and medulla oblongata in the region of the aqueduct and fourth ventricle were embedded and stained by the mvelin sheath and cresyl violet methods. Frozen sections from the cortical convolutions were stained by the Bielschowsky and Sudan III methods.

Microscopic examination Sections from the frontal cortex disclosed a slightly thickened pia-arachnoid. The gray matter appeared thinned-out. The cortical cyto-architectural layers had a normal arrangement. Occasionally some ganglion cells stained

Read before the New York Neurological Society February 2 1937



Fig 1-A Dilatation of anterior horns of lateral ventricles, shrinkage of white matter, and slight atrophy of cortical convolutions

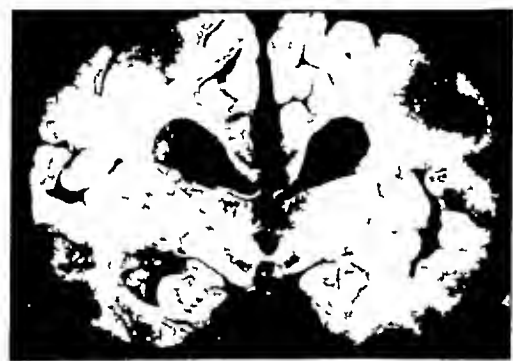


Fig 1-B Dilatation of lateral and third ventricles, shrinkage of white matter, and atrophy of cortical convolutions

poorly. The microglia cells were slightly increased in number. The cortical capillaries were hyperemic. In the white matter, there were numerous vacuoles, swollen oligodendroglia cells, and slight proliferation of the astrocytes. The other cortical convolutions showed similar changes. Occasional calcific deposits were found around the vessels of the motor cortex. Senile plaques or Alzheimer fibrillary changes in the nerve cells were not found. Sections from the corpus callosum disclosed slight fragmentation of myelin, swollen oligodendroglia cells many of which were arranged in rows, numerous vacuoles, and a few gemästete glia cells.

Sections through the aqueductal region revealed dilated vascular channels (Fig 2-A and B), which were lined by a single or several layers of endothelial cells surrounded by collagenous tissue. The lumen was distended and filled with red blood cells. The aqueduct was constricted and only partly lined by a single layer of ependymal cells. The nerve cells in this vicinity did not show pathologic changes, those of the locus caeruleus did not contain the abundant iron pigment normally seen. A few dilated channels

were noted in the pons, these, however, did not reach the size of those near the aqueduct. In the myelin sheath preparation, a few vacuoles and an occasional disintegrated fiber was seen in the pyramids.



Fig 2-A Section through aqueduct of Sylvius showing partial obstruction of aqueduct and dilatation of blood vessels



Fig 2-B Same as Fig 2-A. Cresyl violet stain $\times 60$

In sections through the brain stem, the fourth ventricle was constricted and distorted and in its floor there were several dilated vascular channels filled with blood (Fig 2-A and B). The histologic structure of the walls of these channels was the same as in those from the aqueductal region. There was also a dilated blood channel between the cerebellum and the pons at the upper border of the right brachium pontis. A similar solitary dilated vessel was seen between the floor of the left brachium pontis and the cerebellum. Insignificant nerve cell changes were found near these telangiectases. The Purkinje and other cells of the cerebellum were normal. Some of the ganglion cells of the hypoglossal nuclei showed pigment atrophy. The perivascular spaces of one vessel in the medulla oblongata contained inflammatory cells. Sections of the medulla oblongata through the twelfth nerve nucleus disclosed a moderate dilatation of some of the venous channels.

Spinal Cord A slight paling of the columns of Goll was noted throughout all the spinal segments. Some of the myelin sheaths were slightly fragmented, variations in size were also noted. Numerous astrocytes and glia fibers were found in these areas. In the Sudan III preparation, small deposits of fat were found in the slight areas of degeneration.

Comment

The mental picture in this instance simulated a number of neural disorders such as Alzheimer's or Pick's disease, dementia paralytica, and frontal lobe neoplasm. In retrospect, a correct localization might

have been made if a ventriculogram or encephalogram had been done. Clinically, dementia paralytica was ruled out when the examination of the Wassermann of the blood and spinal fluid was negative.

The presence of the dilated vascular channels in the region of the floor of the fourth ventricle and aqueduct of Sylvius and the constriction of these cerebrospinal channels led to the obstructing hydrocephalus and the resulting mental picture. Histopathologically, the absence of marked cortical atrophy, of distortion of the cortical cytoarchitectural layers, of senile plaques, of fibrillary changes in the nerve cells or of the chromatolytic nerve cells were sufficient to rule out a diagnosis of presenile psychosis (Alzheimer's or Pick's disease). The histopathologic changes in the cortex and white matter such as the slight proliferation of the pia-arachnoid hyperemia of the cortical vessels, slight pallor of the cortical nerve cells, increase



Fig 3-A. Section through fourth ventricle showing distortion of same and several dilated venous channels on its floor.



Fig 3-B. Notice dilated vascular channels on floor of fourth ventricle, obstructing same.

in microglia cells, slight degeneration of the myelin in the white matter and corpus callosum, swelling of oligodendroglia cells, and of the vacuoles are typical changes seen in increased intracranial pressure. We are, however, unable to explain the slight pathologic process in the columns of Goll.

The telangiectases of the skin or the mucous membranes, especially the familial types, first pointed out by Osler, are known to cause symptoms more frequently than those of the central nervous system.



Fig 4 Telangiectases in floor of fourth ventricle from a case without neurologic signs

These dilated vessels, which are frequently found by accident in the brain stem, are symptomless (Fig 4). Instances in which they produce neurologic signs, as indicated in Cushing's and Bailey's² collection of 2,000 verified tumors, are very rare. These cases, we believe, are worth reviewing briefly.

Cushing's and Bailey's patient, a psychoneurotic, after a radical mastoidectomy, developed attacks of prolonged unconsciousness with symptoms suggesting arachnitis or a posterior fossa tumor. Following a negative suboccipital operation, the attacks of unconsciousness, except for one or two, ceased for eight years. Then she suddenly experienced a severe headache, became comatose, and died. At autopsy, telangiectases in the

pons and medulla oblongata were found. A somewhat similar case, familial in character, was reported by Kufs.³ He described multiple telangiectases of the skin in a man who died suddenly at eighty-one. At autopsy these capillaries were found in the cerebral hemispheres, pons, and liver. A daughter of this patient suddenly developed an alternating hemiplegia. Kufs concluded that the paralysis was possibly due to a hemorrhage from pontine telangiectases. It is easily conceivable that these thin vessels may rupture when they become distended with blood. In the skin, rupture of such vessels may lead to a diagnosis of a so-called form of "pseudo-hemophilia." Weber and Harris described "nervous attacks" in a woman thirty-four years of age, these consisted of giddiness, unsteadiness in gait, tendency to fall to the right, diplopia, difficulty in walking, tingling sensation, and a left supranuclear facial

The authors believed that the most probable explanation for these attacks was a capillary telangiectatic condition of a portion or portions of the cerebral leptomeninges as a result of extravasation of blood from these abnormal capillaries. Larabee and Littman,⁶ in reporting hereditary hemorrhagic telangiectasia in a family of five, found one member who had a "nervous break-down" followed by a complete bilateral ophthalmoplegia externa. An autopsy was not performed, but the authors believed that telangiectasis of the midbrain was the most likely cause for the ophthalmoplegia.

It is necessary to differentiate telangiectases from angiomas and hemangioblastomas, which are true malformations. Histopathologically, as seen in our instance, the dilated vascular spaces in telangiectasia are usually lined by a single layer of endothelial cells and surrounded by a few collagenous fibers, the intervening tissue between the vessels is normal neural tissue. In angiomas, the walls of some of the tangled vessels may be fully-formed, they are usually tortuous, and the vessels are separated by intervening glial tissue. In hemangioblastomas, the vessel walls are not fully-formed, they may be lined by one or several endothelial layers as in the telangiectases, but the intervening tissue between the blood vessels is formed by xanthoma and endothelial cells.

As these cases are rarely recognized clinically, little can be said about the treatment. In the presence of obstruction or other localizing signs, intracranial exploration is advisable, and in the absence of brain tumor, deep x-ray remains the only form of treatment.

Conclusion

Telangiectases of the brain stem obstructing the fourth ventricle and aqueduct of Sylvius led to a picture of pro-

gressive mental deterioration simulating dementia paralytica or presenile psychosis
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References

1. Virchow, R. *Die Krankhaften Geschwülste*, Berlin, 1863.
2. Cushing, H. and Bailey, P. *Tumors Arising from the Blood Vessels of the Brain*, Charles C. Thomas, Baltimore, 1928.
3. Kniss, H. *Zeitsch f d ges Neurol u Psych*, 113 651, 1928.
4. Weber, E. P. and Harris, K. E. *Brit J Dermatol*, 44 77, 1932.
5. Larabee, R. C. and Littman, D. *New Eng Journ Med*, 207 1077, 1932.

WHEN THE OXYGEN THINS OUT IN THE SKYWAYS

A sweeping refutation of the theory jointly attributed to him and Dr. Alvan L. Barach, of the Columbia-Presbyterian Medical Center, in recent issues of scientific and popular magazines that oxygen starvation seriously impairs the judgment of pilots flying above 10,000 feet and may have caused many of last winter's air line crashes, was made by Dr. Ross A. McFarland, assistant professor of Harvard University's fatigue laboratory, before the ninth annual convention of the Aero Medical Association of the United States at the Waldorf-Astoria.

Dr. McFarland's views, set forth in a paper on "Physiological and Psychological Effects of Low Oxygen on Normal Man," which he prepared in collaboration with Dr. D. B. Dill, associate professor of industrial physiology at Harvard, were based upon scientific observations and laboratory tests made on the crew of Pan American Airways' China Clipper during a round-trip flight across the Pacific last summer.

He reported that, although the ship flew constantly at heights of 8,000 to 12,000 feet during the 140 hours, his aerial experiments were under way, the crew "maintained high mental and physical efficiency" throughout the trip. The earlier experiments on which Dr. Barach and Dr. McFarland chiefly based their findings were conducted in de-compression chambers and with other laboratory equipment designed to reproduce artificially the decreased atmospheric pressures and rarefied air encountered in high-altitude flying.

Dr. McFarland attributed the mental alertness and physical fitness of the clipper's crew throughout the long ocean flight to the fact that they had become "acclimated" to high-altitude conditions besides standing regular "watches" and getting frequent rest periods. He said later, however, that he made tests on himself and the assistant who accompanied him without

detecting any impairment of mental or physical functions and conceded that any normal passenger probably would experience no discomfort or unusual sensations when flying for long periods at such altitudes.

One result of his "flying laboratory" tests, Dr. McFarland said, was the discovery of a ten per cent increase in the red blood cells of the clipper's crew while aloft. This increased the oxygen-carrying content of the blood, he explained, and helped compensate for the thin air those aboard the plane had to breathe.

Dr. McFarland also said a series of laboratory tests at Harvard had established that it is possible to increase by 5,000 or 6,000 feet the "ceiling" at which any pilot retains his full mental and physical faculties through introducing three per cent of carbon dioxide into the air mixture he breathes. He said the gas acts as a stimulant to the respiratory system, this proportion doubling the normal rate of breathing and thereby causing the blood stream to receive a greater supply of oxygen in a given time than it ordinarily would in the rarefied upper air.

Dr. Barach, who participated in the formal discussion of Dr. McFarland's paper, insisted that airmen flying at altitudes of 10,000 to 12,000 feet suffer from recurring oxygen want and should have this life-supporting medium supplied to them artificially. He advocates changing the present Bureau of Air Commerce regulation requiring air liners flying above 15,000 to carry oxygen equipment for crew and passengers so that such installation would be mandatory at 10,000 feet.

"We do not argue that garage mechanics should be 'acclimated' to carbon monoxide fumes we take steps to protect them from this danger," Dr. Barach said. "I think pilots should be protected in the same way from oxygen starvation."

BED REST FOR BACK INJURIES

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There is a fairly strong opinion on the part of those physicians and surgeons, who know end results as determined by employee's time lost and employer's money spent, that arthrodesing operations on spine and pelvis are both expensive and ineffective *Nihil nocere*

The following quotations are excerpts from unpublished reports given by the chief surgeons of large insurance companies

"It is difficult to evaluate the final results, but it does seem as though in the treatment of injured backs, we are no nearer a solution than we were a number of years ago"

"I am free to admit that we are often undecided as to the proper course to pursue in these back cases. As a matter of fact 75% we compromise without resort to any operative procedure, and settle them for a lump sum"

"One method of treatment is just as good as another. It would appear that there is no choice"

"Following an observation of 15 years in the diagnosis and treatment of low back conditions, it is our opinion that, with a few exceptions, conservative treatment has shown better results than operative treatment"

Unquestionably, there are correct indications for operative procedures. The orthopedic surgeon will establish slowly, by trial and error, these indications. But, until that has been better done, operative enthusiasm stands as a definite menace to industry, employer and employee alike. In the meantime, many thousands of workmen annually need treatment for back injury, and, a few thousand doctors have the responsibility of rendering that treatment.

It is almost axiomatic that all *minor* injuries of the back will recover with little else than immediate and proper rest, adequately prolonged. All *major* injuries of the back require immediate bed rest.

Therein lies the importance of discussing how to put a man to bed.

Bed support must be given immediately after injury, not after the injured has tried to carry on his job for a few days. It is better economy for an occasional workman to lose, unnecessarily, a few days work than for many workmen to lose several months work, when one month, immediately after injury, would have sufficed.

In bed, the back must be so supported as to make protective muscle spasm unnecessary. Add morphine for a day or two if there is much pain. Only rarely is the form of any part of the back altered by injury. The change is chiefly in altered function. If muscle fibers or ligaments are torn, or pulled away from their moorings in and beneath periosteum, a new protective muscle function is immediately instituted to prevent continuation or repetition of the original traumatizing motion. This protective function persists until no longer needed, i.e., until proper and adequate rest conditions are provided. If this protective muscle function is not soon replaced by proper outside support, it becomes a source of pain and disability in itself.

We recommend this general position (Fig 1) of thigh and leg flexion as the best for muscle and ligament strain about the lumbar spine and pelvis. It is not correct for fracture of bodies of vertebrae or of intervertebral disks, but is good for fracture of articular processes.

With boards under a firm mattress at back and thigh levels the semi-sitting position provides adequate support for injured articulations and ligaments in a position of maximum muscle neutrality, i.e., a position in which there is a minimum tug on injured joints by muscle tonus, hence, a minimum of protective muscle spasm.

The skeletal parts in these drawings

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are plantograph enlargements of photographs of a skeleton, the separate bones of which are joined together with rubber, applied in liquid form, about articulations, to simulate ligament. Measurements were taken on the articulated skeleton, not on drawings. As a rule thirty degree elevation of torso and thigh proves the most comfortable position for the patient in severe pain. The flexed position measurements were made at those angles. In practice, the patient is permitted to choose the amount of elevation most comfortable.

In changing from the flexed to the extended position the distances traversed by the sartorius and tensor fascia femoris muscle-tendon combinations (AS and AT) increase from 44.5 to 50.8 cms, an increase of fourteen per cent. That means, in the extended position, a strong downward pull on the anterior superior spine which is accompanied by rotational stress on the sacroiliac joint. If that joint is inflamed or its ligaments injured, an immediate protective muscle spasm is instituted—a contraction of the hamstrings which may institute sciatic pain, and of the quadratus lumborum which may institute back pain.

Likewise, the course of the rectus femoris from the anterior inferior spine (R) to the patella (F) is lengthened in the extended position from 37 to 40.8 cms, an increase of ten per cent. Even

the course of the hamstrings (BF) from the tuberosity of the ischium to the upper posterior leg is increased in the extended position from 35.5 to 37.2—a five per cent increase. In other words, all of the thigh musculature acting on the rotational sacroiliac motion is placed in a position of relaxation by the flexed hip and knee position.

In the extended position also the psoas magnus is stretched.

	Flexed	Extended	Increase	Increase
1st lum. to lesser tro	30 cms	31.8 cms	1.8 cms	} 7%
2nd lum. to lesser tro	27	28.5	1.5	
3rd lum. to lesser tro	24	25.5	1.5	
4th lum. to lesser tro	21	22.5	1.5	
5th lum. to lesser tro	18.5	20.5	2.0	

This produces an elevating force on all lumbar vertebrae tending to raise the spine from support of the bed and aggravating inflamed spinal and lumbosacral articulations.

Much of the back pain in spinal arthritis is due to muscle spasm. It is largely eliminated by rest and local heat, i.e., the pain goes when the spasm is released. Only exceedingly rarely does one find any increase in the size of osteoarthritic changes following injury. Such changes, undoubtedly, make the joints and ligaments involved more vulnerable to injury because they limit flexibility. They reduce the range of joint motion during which muscle action can absorb the force of trauma. And they are in the way to receive the unabsorbed shock of trauma.

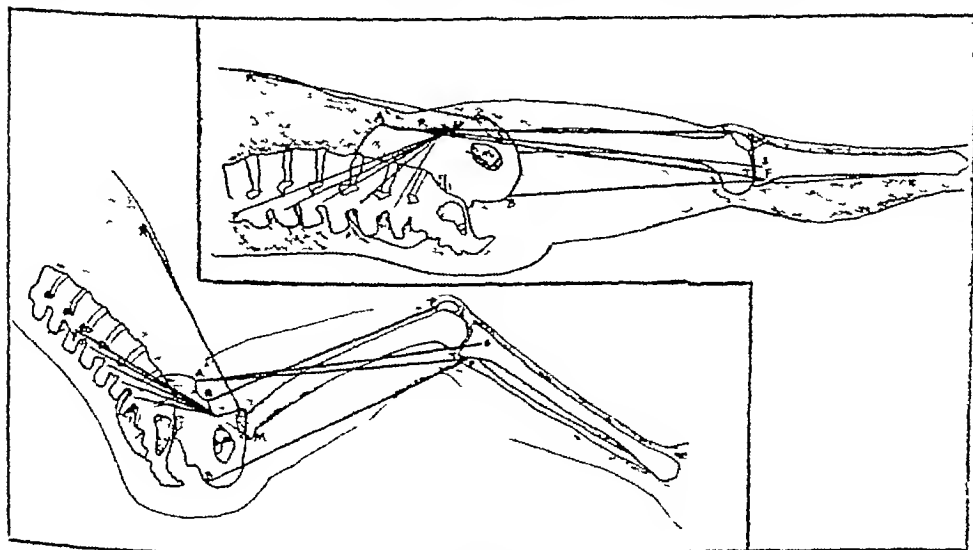


Fig. 1



Fig 2 Position of lower lumbar articulations, patient lying supine in sagging bed

But, when injured, they heal, as does any injured tissue, if kept quiet and supplied with blood. It is not rational, then, to conclude that a joint, found after injury to show the degenerative arthritic changes of subchondral density and marginal proliferation, must be permanently deprived of its motion. Sir Arthur Keith said of John Hunter that the most important contribution he ever made to surgery was "his clear recognition of the fact that restoration is effected by powers inherent in the living tissue of the patient."

Moreover, if this protective muscle function, this spasm, is not soon released, it produces an altered position at articulations where healing processes are going on (Fig 2-3). That results in unnecessary scar limitation of motion and prolonged discomfort during the convalescent period. Such pain the patient does not differentiate from the original pain of injury. He develops fixed ideas of permanent disturbance, and fear to institute the motion needed for recovery.

For example, if the capsular ligaments of this articulation between fourth lumbar and fifth lumbar are torn, and the spine is permanently held in lordosis by a prolonged supine position in bed, healing results in scar which makes straightening or flexion of the lumbar spine painful, at least for a time. The patient will admit that he feels pretty well sitting or standing, but will complain that he cannot stoop over at all. Or, if during the healing period, the patient lies supine in a sagging bed, scar makes uncomfortable the normal lordosis in erect position and the patient will want to wear a brace for a long period of time.



Fig 3 (Upper) Position of lower lumbar articulations, patient supine, lower extremities extended producing forward rotation of pelvis and upward lift upon lumbar spine by psoas magnus. (Lower) Neutral spinal position obtained by flexing thighs and knees.

While these photographs show extremes of joint position they do not show exaggeration of joint position. If one uses the relative proximity and separation of the spinous processes as an index of the change at articulations, it will be noted that in film of this normal, thirty-five year old male, assuming, under active motion only, positions of lumbar lordosis and kyphosis, the changes are not greater than in the articulated skeleton. One must remember that ligament strains occur at the extremes of normal motion, for it is only at the extreme that ligaments come into restraining function.

The back must be so supported as to prevent gravity strains on all spinal ligaments. Nature never uses ligaments for continuous support of parts or for the continuous active maintenance of parts in position. Nature uses ligaments as secondary supporting mechanisms, final safeguards against abnormal joint motion,

BED REST FOR BACK INJURIES

but always secondary to the active and primary force of muscles. Muscles only have active elasticity. They contract and elongate with continuous tonus. Ligament has no elasticity, only the capacity to maintain tension when passively tautened. Ligament subjected to continuous tension invariably elongates. It also produces pain when its osseous attachment is long held under tension. The back must be so supported as to prevent compression of injured vertebral bodies, intervertebral disks or articular surfaces.

The question of pressure upon spinal nerve roots at the foramina of exit from the neural canal has not been settled well enough for any dogmatic statements. There would seem to be ample space for the nerve in any spinal position. One can readily show that the size of the foramen is larger with the lumbar spine flexed than with the lumbar spine extended. One can accept that the posterior primary division of the spinal nerve winds closely over the ligamenture of the joint and that any inflammation of the joint may institute radiating pain, but that there is direct pressure upon the nerve roots appears improbable.

So far, we have dealt only with providing the proper support to give the back rest (Fig 4). That is the first

phase of treatment. The second, and equally important one, is to provide the means for motion. Putting a man to bed with adequate and proper support for his back so as to attain the objectives enumerated does not mean entire elimination of motion. Absolute rest is merely an imaginary state. Moments of quiet are always alternated with moments of motion. Motion preserves the active function of muscles. Nature will institute motion automatically, beginning with very small motions, and will gradually increase it, if the parts are adequately supported during the intervening periods of rest. These early motions are involuntary, in the sense that the patient does not wilfully perform them. There is no consciousness of these motions unless they are painful. These small motions are reflex responses to the small discomforts of prolonged single position, of too much heat or cold, or a fold in the sheet, gas in the intestine, etc. They are not always possible in plaster-of-Paris casts. They are inhibited if the support is such that they are painful.

There is also a large psychic element involved in this ability to enjoy small automatic movements. Any patient responds better to any form of treatment if he is comfortable during it. The more ignorant the patient, the more this is true.

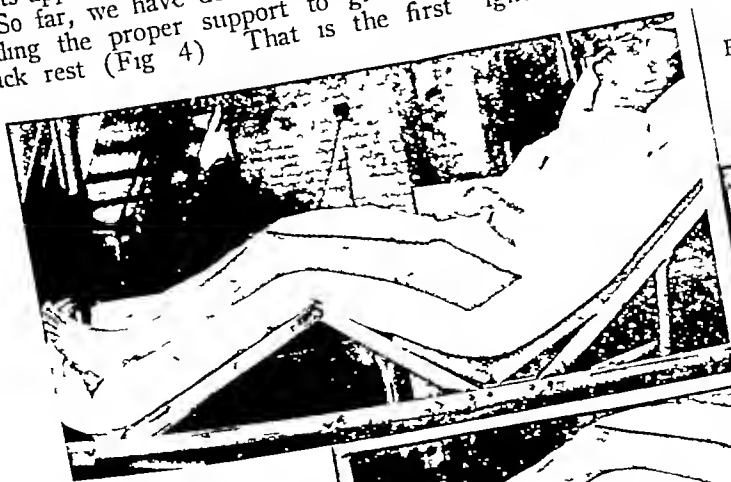


Fig 4

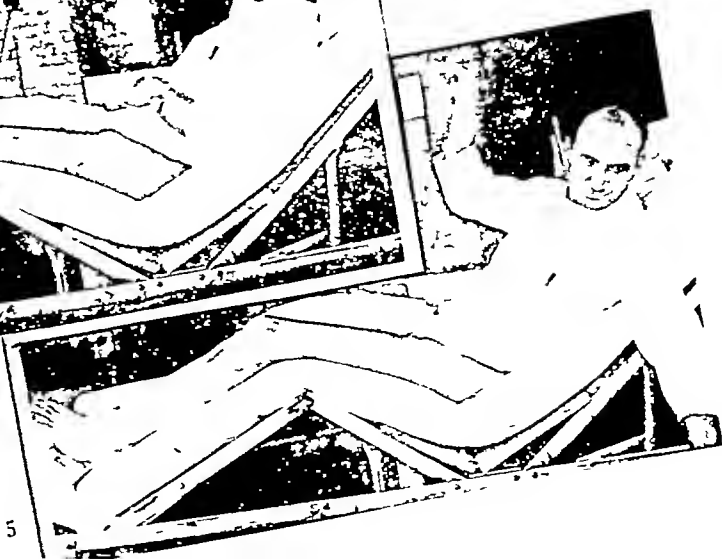


Fig 5

Comfort is secured by position, by environment, by the presence of friends and friendly surroundings. Comfort in bed is necessary for sleep. The bed patient does not do enough to get tired. Nevertheless, he demands sleep to escape from disagreeable cerebral experiences. Ability to make the patient comfortable, to put the ignorant patient into a vegetative state, constitutes good nursing and good doctoring too.

Proper bed rest soon becomes manifest because small involuntary movements merge into voluntary, purposeful movements (Fig 5). The patient will be found squirming around, reaching for things, stretching his extremities, and every time he does that he is exercising

his back and approaching convalescence. He should be encouraged in such endeavors but usually not urged vigorously to institute them. If he finds that he is not going to be driven, but is going to be allowed to go his own pace, no matter how slow it may be, he will get well quicker. If, on the other hand, his physician begins to talk about light work in a week or two, when he still has pain turning over in bed, he will certainly rebel. His defensive mechanism begins to control his behavior. Fusion operations are not designed to immobilize the emotions. Their effect, unfortunately, is often to actively mobilize the emotions.

PROFESSIONAL BLDG

NEW RULES FOR SCHOOL HEALTH

New regulations for the health and physical education program in the public schools of this state have been adopted by the State Department of Education and announced by Dr. Hiram A. Jones, Director of the Health and Physical Education Department. Their aim is to prevent physical, mental and social handicaps in young persons. They are now effective, except the section on athletic contests, which goes into effect next fall. All the pupils will be expected to take part in athletics of some kind.

Further, the educational authorities must give primary consideration to the well-being of individual boys and girls in the conduct of games and sports, and conduct all activities under adequate safety provisions. Athletic activities are to be made an articulate part of the physical education program under the supervision of the professionally trained physical education staff.

"It shall be the duty of boards of educa-

tion," the regulations say, "to sacrifice no individual for the sake of winning events, to equalize in so far as possible the powers of opponents in individual and group athletic competitions, to provide adequate health examinations before participation in strenuous activity and periodically throughout the season, and to permit no pupil to participate in such activity without the approval of the school medical officer."

Girls' activities are limited to club athletics, intramural games, play days and approved invitation contests. All such games are to be conducted under girls' rules with women acting as referees, umpires or officials. Wherever possible, girls' contests are to be conducted under the supervision of a woman physical education teacher.

"These rules will prevent the exploitation of girls who have been used in some schools for the purpose of increasing gate receipts," Dr. Jones said.

BLIGHTED BUDS

Not every flower that in God's garden grows
May boast the beauty of a perfect rose,
Nor can all children borne on nature's tide,
Adjust their pace to life's quick-changing
stride

With grateful hearts, we count the sound
and strong,
The fortunates who ever forward throng
If wisely guided, these will surely find
The luscious fruits that feed the healthy
mind

But blighted buds must have more skillful
care

Presenting problems deep and lesions rare
'Tis these that science nobly strives to heal,
'Tis these with whom the world must kindly
deal

Let no one dare to say "There is no cure,
And buds that bear the blight must blight
endure"

Tomorrow's sun may bring a brighter glow
To many who today but darkness know—

DUDLEY MATTICE, *Mental Hygiene News*

TANNIC ACID THERAPY IN ALLERGY OF THE NASAL MUCOSA

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Introduction

Tannic acid has been employed for many years as an astringent in ocular and nasal therapy, especially in the form of the glycerite. Apparently it has not been employed to an appreciable extent in allergic conditions of these organs. That solutions of tannic acid may be of service in preventing or diminishing symptoms of probable allergic origin was suggested to the writer by the results of its use in a patient who was hypersensitive to brazil nuts. This patient's sensitiveness was so great that "swelling of the throat" occurred if "cake cut by a knife that had previously been used to cut a cake baked with brazil nuts" was ingested. Swallowing a small amount of a solution of tannic acid allegedly relieved the unpleasant symptoms. The writer has not as yet developed this phase of the subject as part of tannic acid therapy in oral allergy but has rather used it in certain types of allergic conditions of the nasal mucosa. The recognition that certain astringents like tannic acid and alum administered intranasally might prevent poliomyelitis has emphasized the possibility that local measures may hinder the passage of certain large molecules like viruses or proteins through the nasal mucosa. Astringents of this type could react on the nasal mucosa on excitants or on both simultaneously in cases allergic in nature.

Olitsky and Cox¹ in 1934 demonstrated that mice which had received nasal instillations of tannic acid (or alum) were resistant to infections with equine encephalomyelitis administered by the nasal route. Further investigations by Sabin, Olitsky, and Cox² showed that tannic acid instilled intranasally over a period of several days protected monkeys against the virus of poliomyelitis by the nasal route. One half per cent tannic acid protected mice but three per cent was required for monkeys. Treatment over a period of three days was required to induce resistance. The effectiveness of the action of the tannic acid was apparently not on the

virus itself but rather on the tissues of the host, possibly the nasal mucosa. These authors also showed that four per cent tannic acid can be given to human subjects with only slight discomfort and no obvious harmful effects.

Olitsky and Cox have shown that the absorption of Prussian blue through the nasal mucosa of rabbits and mice may be retarded after intranasal treatment. Rake and Cox³ found that tannic acid may produce an inflammatory reaction in mice and that a qualitative difference in the manner of passage of dye occurred through the olfactory mucosa. A correlation also existed between the degree of mucosal inflammation and the passage of the dye. In six mice in which pigment was observed to a lesser extent, the inflammatory process was relatively greater. In three other mice the tannic acid treatment produced a lesser inflammatory response with a correspondingly slight increase in the passage of pigment into the olfactory cells. Rake⁴ has more recently analyzed these phenomena⁵⁻⁷ in detail.

Case Reports

The writer has been employing chiefly one-half per cent tannic acid in certain types of allergic rhinitis since 1935. The following case reports will instruct the reader in its use.

CASE 1. A twenty year old medical student registered for the physiology course at Cold Spring Harbor in June 1935. The dormitory building as well as many of the laboratories was closed during the winter. He was constitutionally allergic and especially sensitive to dust, and on taking up residence at the laboratory began to have attacks of sneezing and coryza severe enough to prevent attendance at lectures and laboratory. The bedroom was changed and cleaned thoroughly. New pillows and a mattress were purchased with no cessation of symptoms. A three per cent solution of tannic acid was suggested. This was used by the patient as a spray on arising and several times during the day. It was slightly irritating but after sneezing several times the nasal symptoms

diminished sufficiently to enable him to work.

This medical student analyzed his case carefully and summarized his experience as follows

(a) Glycerine solutions of tannic acid leaked out of the nostrils and the treatment afforded no relief

(b) If an aqueous solution was sprayed into the nose three or four times daily an important effect was observed after three days. The treatment had to be kept up continuously. If it was omitted for a period of days the attacks of sneezing returned. If the spray was used continuously with the formation of crusts in the nose (probably protein tannates with a superimposed film of tannic acid) the results were unusually good. Under these conditions there was no sneezing at all irrespective of exposure to the same dust. But even if the crusts had formed, discontinuance of treatment for any considerable length of time led to a recurrence of the sneezing attacks. After leaving the laboratory this form of therapy was discontinued, since no sneezing occurred in the new environment. This case was one of extreme hypersensitiveness to dust. The patient was unable to attend classes or work without therapy.

CASE 2 E W, Finnish born woman of forty-eight years had had hay fever for twenty years and asthma for fifteen years. She was sensitive to wool, cotton, and silk, and it was necessary to stop wearing and handling these substances. Intradermal tests with the usual inhalants showed positive reactions to ragweed, timothy, dust, glue, and wool. Food reactions were essentially negative. The patient's clinical reactions were quite marked, however, to dusts, paints, and sharp odors. In March 1936 she complained of itching eyes which were somewhat relieved by drops of an aqueous solution of $\frac{1}{2}$ per cent tannic acid twice daily. At this time the patient complained of sneezing while dusting her home and the same concentration of tannic acid was used in a spray twice daily and before dusting. During the grass season she continued using the spray for the relief it afforded and in addition received injections of dust, timothy, and ragweed extracts. On August 17 her home was repainted. She had no complaints in spite of the fact that she lived at home during the painting. In the previous year she had had hay fever and asthma. Under the combined therapy of pollen and dust injections with tannic acid intranasally she was able to perform all of her duties as housewife and again was able to iron silks. She passed through the ragweed season (1936), which had a higher pollen count than the previous one, without any symptoms of hay fever. At this time (February 1937) she is still using $\frac{1}{2}$ per cent tannic acid solution as a spray without any obviously harmful effects. There have been no asthmatic attacks.

CASE 3 A female of thirty years who had severe coryza and sneezing at the height of the ragweed season in 1935 used a two per cent solution of tannic acid as a spray several times. She found this concentration as well as the $\frac{1}{2}$ per cent solution irritating. There was no alleviation of symptoms.

CASE 4 K H, an adult female, a biologist at Cold Spring Harbor of twenty-seven years who had hay fever volunteered to use two per cent tannic acid as a spray during the height of the ragweed season. She found the solution irritating. She counted the number of sneezing episodes and the number of sneezes or episodes with and without therapy. Since these studies were not correlated with pollen counts they were not conclusive. Her opinion, however, concided with that of the writer—that this solution produced no improvement in her case.

CASE 5 O W, an unemployed Finnish doorman of forty-eight who had had diabetes for many years and who was receiving insulin for his glycosuria, showed skin reactions that were essentially negative to the routine set of inhalants. His reaction was one plus to 0.1 of ragweed. In spite of his practically negative skin reaction he was clinically extremely sensitive to pollen during the ragweed season. In addition he had marked hypersensitiveness to cold draughts at various times. Odors of paint, camphor, and other sharp substances led to sneezing and nasal discomfort. He began to receive ragweed and dust injections in May. At that time he also complained of itching eyes and a stuffed nose. The itching eyes and stuffed nose did not seem to be related to the pollen in season at the time. He was advised to use a one-half per cent solution of tannic acid as a spray and if necessary to use a small amount of one-quarter per cent tannic acid in his eyes. It was found that tannic acid used as indicated decreased his discomfort. He continued to use tannic acid up to November when nasal symptoms diminished. He went through the entire ragweed season without any marked symptoms of hay fever. In his case, contrary to the experiences which are given in the other cases, which did not find tannic acid useful, tannic acid was used throughout the ragweed season with no ill effects, and apparently was efficacious in preventing symptoms. In December the nose and throat consultant reported that there was bilateral maxillary sinusitis, that the septum was deviated to the right and that the tonsils were diseased. In this instance as far as the writer was able to observe, the tannic acid was especially useful in avoiding paroxysms of sneezing excited by draughts of cold air and large

quantities of dust occurring incidental to house cleaning

CASE 6 H K was a thirty-seven year old housekeeper who was constitutionally allergic and had rather severe hay fever in the fall. She was skin sensitive to a large variety of inhalants. It was very frequently necessary for her to go to the country and open up the country house during the winter. On these occasions there was a large amount of packing and dusting. House openings of this sort were followed by paroxysms of sneezing and a good deal of nasal discomfort. She was advised, as a preliminary to these changes of residence and to dusting and work of this sort, to spray her nose with one-half per cent tannic acid several days ahead of time and to continue spraying during the time that she engaged in her occupation. According to her report the use of the tannic acid spray diminished considerably the nasal discomfort attendant upon any type of dusting, or contact with malodorous materials.

The response of the normal mucous membrane to tannic acid varies. Some individuals who have sprayed their nose with one-half per cent solutions seem to find it not irritating at all. Others sneezed for several minutes and disliked the effect. The same is true of allergic patients with various types of nasal complaints. A patient may refuse to use the tannic acid because of sneezing and irritation, in these cases it is to be discontinued. On the other hand, there are some individuals who use it continuously and find it in no way objectionable. The following prescription may be written to make thirty cc of the solution

Tannic acid USP 0.15

Chloretone 0.15

Aqua qs ad 30.0

S To be used as a nasal spray from two to three times a day

It may be advisable in certain instances to use a higher concentration if the low concentration is well-borne but there is only slight clinical improvement. In that event a one per cent solution may be prescribed. The writer has used solutions, as will be noted from the case histories, as concentrated as two per cent. When used in attempts to prevent poliomylitis, even higher concentrations have been recommended. The patient should prefer-

ably use the solution with an all-glass nebulizer, and spray his nose from two to three times a day depending upon his reaction.

Discussion

If employed alone, tannic acid was apparently washed out by the enhanced secretions present during the ragweed season as fast as it was sprayed in. In the cases where it was employed pre-seasonally, injections of ragweed were also administered. There was no instance in which the tannic acid was used pre-seasonally for a suitable period with the ragweed injections omitted.

It is of interest to remark that tannic acid does not agglutinate ragweed pollen or coagulate pollen protein with the same facility that it causes precipitation of other proteins or cells.⁸ The further study of precipitation reactions of tannic acid and other astringents suitable for nasal instillation with the other allergenic inhalants would be of considerable interest and importance.

Tannic acid has the remarkable property of sensitizing the surfaces of bacteria and red cells for phagocytosis.⁹ It is, perhaps, by a mechanism related to this surface action or unicellular organisms that a protective process may have been set up in the nasal mucosa, in the instances where relief was afforded in the cases yielding to this form of therapy.

Summary

Tannic acid solution has been employed successfully in the form of a spray in certain types of allergic rhinitis. It is recommended as an inexpensive adjuvant to the usual procedures

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References

- 1 Olitsky, P. K. and Cox, H. R. *Science* 80 566 1934
- 2 Sabin A. B., Olitsky P. K., Cox H. R. *J Exp Med* 63 877 1936
- 3 Rake, G. and Cox, H. R. *Proc Soc Exp Biol Med* 34 716 1936
- 4 Rake, G. *J Exp Med* 65 303 1937
- 5 Leo E. and Bergmann, F. *Arch Exp Path u Pharm.* 181 625 1936
- 6 Armstrong, C. and Harrison, W. T. *Pub Health Rep* 51 1105 1936
- 7 Schultz, E. W. and Gebhardt L. P. *Proc Exp Biol Med* 34 133 1936
- 8 Unpublished data
- 9 Reiner L. and Kopp, H. *Z f Immunolat* 61 397 1929

A hundred times a day I remind myself that my inner and outer life depend on the labors of other men, living and dead, and

that I must exert myself in order to give in the same measure as I have received and am receiving —Albert Einstein

AUTO TRANSFUSION IN ECTOPIC PREGNANCY

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From the Gynecological Service of the Albany Hospital

Several papers have been written in recent years on the maternal morbidity and mortality in the United States. These articles have all stressed the importance and necessity of lowering the death rate in pregnant women, and very little has been said about the deaths caused by extrauterine pregnancies. Statistics show that maternal mortality due to ectopic gestation is surprisingly high. Gordon¹ in a recent paper summarized statistics as follows:

The New York Academy of Medicine report on New York City for 1930 to 1933 listed 120 deaths from ectopic gestation, 5.9 per cent of the total maternal mortality. The Philadelphia report considering 717 maternal deaths from 1931 to 1933 reported 33 ectopic deaths, 4.6 per cent of the total, or 11 per cent of the cases under twenty-eight weeks. The Children's Bureau "Study of Maternal Mortality in Fifteen States" for 1927 and 1928 in 13 states, and for 1928 only in 2 more states, attributed 314 deaths to ectopic gestation, or 4 per cent of the total 7,380, deaths from hemorrhage of placenta previa were but 347, and deaths from post-partum hemorrhage 374.

On the basis of 16,000 deaths annually assigned to pregnancy and childbirth, it is likely that about 1,000 women die from ectopic pregnancies every year. Tenney² in a review of 150 cases of tubal pregnancy treated on the Gynecological Service of the Boston City Hospital during the past eight years stated that there were three deaths. In Albany last year there were thirteen maternal deaths. Three of these deaths were caused by tubal gestation. Since death in most cases of ectopic pregnancy is due to shock, hemorrhage, or sepsis, blood transfusion is an excellent therapeutic measure.

In this paper, the writer presents a practical method for transfusion in which the blood present in the peritoneal cavity is recovered and returned to the circulation of the patient. This procedure, used successfully in twenty-six cases, has been prompted, *first*, by the observation of the

large amounts of blood present in the peritoneal cavity, and *second*, by the immediate need of blood in the systemic circulation of the patient either before or after operation.

The advantages of autotransfusion are, *first*, that there is no necessity for another donor, and *second*, that the blood is immediately available when it is urgently needed. Cottis,³ in his discussion of the value of auto blood transfusion, states:

'In the event of severe hemorrhage into the abdominal cavity, whether it is before or during operation it is not good surgery to throw away the blood. This method of returning it to the patient is simple, safe and effective. It is a conservative measure which is worthy of more general use.'

When autotransfusion is employed there is no danger of a foreign protein reaction which may occur sometimes even if the blood of the donor is theoretically compatible with that of the patient. Levine and Segall,⁴ in their studies of post-transfusion reactions, state: "A long operation in which ether is used alters the patient's serum as regards its haemagglutinin properties. This is not permanent but disappears in the first twenty-four hours after operation."

The terms autotransfusion, autohemofusion, and autotransfusion are used synonymously in the literature. Autotransfusion was employed successfully in 1914 by Johannes Thies⁵ of Leipzig. He reported three cases of ruptured ectopic pregnancy where he procured the blood free in the peritoneal cavity and returned it intravenously to the patient. Previous to this time, English investigators mentioned the advisability of autotransfusion and used it in several cases of leg amputations. Lichtenstein⁶ in 1918 reported its use in thirty-nine cases of extrauterine pregnancy. The first article on this subject to appear in this country was published by White⁷ in 1923. Autotransfusions in ruptured tubal pregnancies have been reported by Cottis,³ May,⁸ Maynard

*Read at the Annual Meeting of the Medical Society of the State of New York
Rochester, May 25, 1937*

and Rees,⁹ Appleby,¹⁰ Love,¹¹ Ricci and Di Palma,¹² and others. In 1923 Burch¹³ summarized 164 cases, all European, with only two deaths. Davis and Cushing described a method for autotransfusion using the blood lost during prolonged neurosurgical operations. Gray obtained the blood from a spleen after splenectomy and used it with good results. Coley reported a case of autotransfusion where the blood from a traumatic ruptured spleen was employed. Recently Watson and Watson reported the successful use of autotransfusion in the treatment of a patient who had a laceration of the heart.

Blood for autotransfusion has been obtained by various methods, treated in many different ways, and administered to the recipients by a variety of technics. In gynecology and general surgery, the blood escaping from tubal pregnancies or from ruptured viscera has been allowed to remain in the peritoneal cavity for absorption. At other times it has been removed from the peritoneal cavity by a suction apparatus or a syringe or has even been dipped up by cups or squeezed out of tampons and then returned to the patient's veins. In general medicine the blood has been treated by radium, x-ray, chemicals or kept in an incubator before being returned to the circulation. In obstetrics blood obtained from the placenta has been given per rectum. Farrar,¹⁴ in her article describes a technic similar to the one employed by the writer. She used this form of transfusion in patients where blood had escaped into the peritoneal cavity during hysterectomy and from tubal gestation.

Technic

In the cases herewith reported, blood was obtained from the peritoneal cavity before, during, and after the removal of the ectopic gestation and then immediately returned to the patient's circulation by intravenous transfusion. The apparatus used for recovering the blood from the peritoneal cavity is a suction outfit similar to the one ordinarily employed in recovering fluids in the course of abdominal operations. This consists of a source of suction, which in the operating rooms of the Albany Hospital, is the radiator, a part of the vacuum heating system. A

wash bottle with a two-holed rubber stopper is placed on the floor. Through one opening in the stopper a glass tube with a rubber delivery tube is attached to the source of suction. Through the other opening a tube is connected with a suction flask on the instrument table as shown in the diagram (Fig 1). The suction flask on the instrument table is plugged with a one-holed stopper. From a side limb in the flask a tube is attached to the source of suction. Through the hole in the rubber stopper a tube with sucking tube attached is extended to the peritoneal cavity. The suction flask and tubes are all sterilized before operation. Immediately before use, a nurse washes out the flask and tubing with normal saline and then places forty c c of

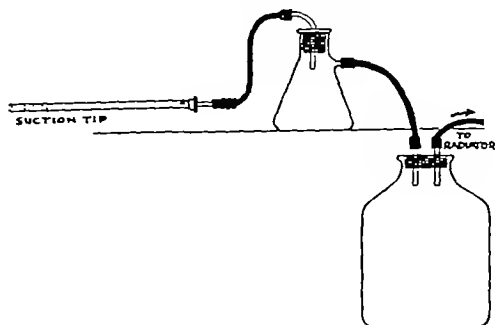


Fig 1

two per cent sodium citrate solution in the flask. In each case from 350 to 900 c c of blood were obtained from the peritoneal cavity.

The operator can proceed without difficulty while the suction is working. Now and then the instrument nurse rotates the flask containing the blood, citrate, and saline solutions. After all the blood or a sufficient amount is obtained, the instrument nurse filters the blood through at least twenty thicknesses of gauze and measures it. If more of the two per cent citrate is needed to make the citrate solution ten per cent of the total volume, the necessary amount is added. While the blood is being prepared an intern starts an intravenous injection of normal saline and is ready to give the citrated blood as soon as it is filtered. The blood is kept at body temperature by immersing the flask in warm water. In the cases reported the transfusion was completed

usually before the abdominal operation was finished

Although the cubital vein has ordinarily been used, any vein, even a large vein of the omentum, can be used if the brachial vessels are collapsed

Citrated blood has been used without danger. When one considers that if 1000 cc of citrated blood are given, the patient receives only two gm of sodium citrate, and since over twice this amount of sodium citrate may be given safely to the patient this method may be considered feasible

Contraindications

The contraindications to autotransfusion are three: infection, malignancy,

TABLE I—AUTOTRANSFUSIONS IN TWENTY-SIX PATIENTS

Age of Patient	Citrated Blood cc	Age of Patient	Citrated Blood cc
28	400	38	400
42	350	40	350
32	700	27	400
31	600	28	300
25	600	36	400
20	800	31	450
25	350	33	250
26	380	21	200
34	900	28	400
36	900	32	250
37	300	23	500
28	250	25	150
22	400	26	200

and old stagnant blood from long-standing tubal pregnancies. Old chronic salpingitis apparently does not contraindicate using the peritoneal blood associated with tubal pregnancy. A careful examination of the peritoneal cavity for evidence of infection should be made at the time of operation. If any such evidence is found the blood should not be used. It is also possible that bacteria may be introduced into the blood stream of the patient as a result of faulty technique

Case Reports

CASE 1 Mrs. R. F., aged twenty-eight, entered the Albany Hospital December 8, 1933, in a state of shock. She had been seen in her home one-half hour previously. At that time she was cold and clammy, her pulse was thready and weak, and she was very pale. A diagnosis of intra-abdominal hemorrhage, probably caused by a ruptured tubal pregnancy, was made. Her present illness started three days

previously with vague, low abdominal pain on both sides, but emphasized on the right. There was some nausea. She consulted her physician who felt that she had a pregnancy in a retroflexed uterus because she had missed two periods. There was no vaginal bleeding. The morning of admission the pain became more acute and she called her doctor. He made a pelvic examination and then advised the patient to assume the knee-chest position, in order to bring the fundus of the uterus forward. After a few minutes in this posture the patient almost went into shock. At this time I was called, and without any further attempt at examination, the woman was rushed to the hospital and operated upon. An attempt was made to obtain a donor for blood transfusion.

The operation was performed under ether anesthesia by the writer. A midline incision was made. Free blood appeared in the peritoneal cavity and the suction tube was placed there. Approximately 500 cc. of blood was obtained. A ruptured left tubal pregnancy was found. Under ether anesthesia, the left tube and ovary and appendix were removed by the author. Prior to and during the operation the radial pulse was not perceptible. As soon as the incision was made an intravenous saline injection was started. The citrated blood was also given and the patient left the operating room in good condition. Her pulse rate was 120. She made a normal convalescence and was discharged from the hospital in good condition.

In this case, autotransfusion may have been a life-saving measure because a suitable donor was not immediately available.

CASE 2 Mrs. M. I., aged forty-two, entered the Albany Hospital on April 20, 1934, complaining of abdominal pain and discomfort with periodic attacks of nausea and vomiting, of easy fatigability and shortness of breath.

The present illness started seven weeks before admission. The onset was sudden and acute, with marked pain, nausea, vomiting, and weakness. She did not faint. Her last menstrual period occurred three months previously. She did not consider herself pregnant because of the amenorrhea, for she had been irregular for the past two years. She had four children who were living and well. Following the onset of her present illness she had a small amount of vaginal spotting which had persisted until the present. For the seven weeks before admission, she had been confined to bed because the slightest exertion increased all of her symptoms.

Before admission to the Albany Hospital she had been under observation in another

hospital. There she was told that she had "fibroids." One morning while in the hospital she fainted after straining at stool in the lavatory.

On admission to the hospital, physical examination showed a well-developed, well-nourished female, rather pale and dyspneic. Mucous membranes were pale. Heart and lungs were normal. The abdomen was distended, very tender, and tympanitic on top. No definite masses were palpable. Pelvic examination showed a tender, boggy mass filling the culdesac. The body of the uterus was not definitely palpated. A preoperative diagnosis of hematocoele and ruptured tubal pregnancy was made.

Urine examined in the laboratory was normal. Friedman's modification of the Aschheim-Zondek reaction was positive for pregnancy. Examination of the blood showed the hemoglobin to be seventy per cent, white blood cell count was 13,350. The Wassermann test was negative.

Operation was performed by Dr. John A. Sampson on April 25, under ether anesthesia. On opening the peritoneal cavity a large amount of old blood was found. The pelvis was filled with a mass of the various viscera slightly adherent. As this mass was disturbed fresh bleeding occurred. The uterus was in normal position, slightly enlarged and soft. A large hematocoele filled the culdesac. On the right side a three to four months fetus was found. The placenta was attached to the right broad ligament, tube, and pelvic wall. An appendicectomy, panhysterectomy, and bilateral salpingo-oophorectomy were performed. The fetus and placenta were also removed. Drainage was established through the vagina and a stab wound. During the operation approximately 350 cc of blood were obtained from the peritoneal cavity, citrated, filtered, and given to the patient intravenously.

The convalescence was uneventful and the patient was discharged in good condition on May 13.

CASE 3 Mrs. L. A., aged thirty-two, entered the Albany Hospital on May 21, 1934. She had been seen one hour earlier in her home. At that time she complained of faintness, pain, nausea, and dyspnea. Her last regular period had occurred in March. In April, two weeks after normal time, she had slight pain low down in the right side. This was followed by a small amount of vaginal bleeding. The pain and the bleeding persisted until two days before admission. At no time did she take to bed. Two days before admission she fainted, because she "felt weak." That day she took a 200-mile automobile trip. The day before admission she had more pain than at any other time

previously. This pain, so severe that she had to go to bed, was more intense on the left side. The pain and weakness persisting till the next day, she called her family physician. When he saw her, she was cold and clammy, but did not faint. On questioning, she stated that today she had pain in her right shoulder and also pressure in the rectum as if the bowels wanted to move.

Physical examination revealed the usual findings of secondary anemia. The abdomen was moderately distended, tympanitic, and tender low on both sides. Pelvic examination showed a uterus of normal size and position. There was a tender mass on the left side, and a soft tender mass in the culdesac.

Laboratory examination of the blood on admission to the hospital showed Hemoglobin, fifty-five per cent, white blood cell count, 23,200, Wassermann, negative.

On the evening of the day of admission, an operation was performed by the writer. Under ether anesthesia a low midline incision was made. As soon as the peritoneal cavity was opened, a large amount of bloody fluid was encountered. A tubal pregnancy was found on the left, and the left tube and ovary were removed. Before the incision was closed 700 cc of blood, obtained from the peritoneal cavity, were returned to the patient's circulation.

After seventeen days in the hospital, she was discharged in good condition.

CASE 4 Mrs. C. H., aged thirty-four, entered the Albany Hospital on January 3, 1936, because of severe pain in her lower abdomen. This pain was worse on the right side and was associated with nausea. There was no vomiting. She stated that ever since her last menstrual period, which started December 1, she had not been feeling well. Her period, which started on time, lasted for fifteen days and vaginal spotting had continued. She had had eight previous pregnancies—six children living and two miscarriages. The last was in June 1935.

The severe pain actually started the morning of admission. She felt a little faint. Temperature was normal, pulse about 124. The abdomen was moderately distended and very tender low down on both sides, particularly on the right. A diagnosis of tubal pregnancy was made. A pelvic examination was not attempted because of the danger of causing more internal bleeding. She was operated upon the same day, under ether anesthesia by the writer. A low midline incision was made. The peritoneal cavity was filled with both fresh and old blood. This was aspirated, citrated, and filtered. Approximately 900 cc were returned to the patient intravenously while the abdominal

operation was in progress. Her appendix, right Fallopian tube, and ovary were removed. She made a normal convalescence and was discharged in good condition on January 23.

CASE 5 Mrs E M, aged thirty-six, was first seen on the morning of April 22, 1936, because she had severe abdominal pain and had fainted. When I saw her she was pale and gasping for breath. If she attempted to sit up, she would faint. Her abdomen was distended and very tender. Pelvic examination was not made. She said that when she went to bed the previous evening she felt perfectly well but during the night she was seized with severe pain, particularly in the lower left quadrant, which continued and increased, spreading over her entire abdomen. She vomited several times. She also complained of pressure sensations on the rectum as if her bowels wanted to move. She experienced some pain in her right shoulder.

She was brought to the hospital and operated upon immediately by the writer. A low midline incision was made under ether anesthesia. A large amount of fresh blood was found in the peritoneal cavity. A suction tip was inserted at once and the fluid blood aspirated. The left Fallopian

tube was removed because it was ruptured in its middle third. During the operation approximately 900 cc of citrated blood were obtained, and, properly filtered and warmed, returned to the patient's circulation. She left the operating room in good condition. Her convalescence was uneventful and she was discharged from the hospital May 10.

Summary

1 Autotransfusion is a standard procedure in the Gynecological Service of the Albany Hospital.

2 In many cases of ectopic gestation, blood may be obtained from the peritoneal cavity during the operation and returned to the patient intravenously as soon as it has been properly citrated and filtered.

3 A simple technic for this purpose is described.

4 Auto blood transfusion has been successfully employed by the writer in twenty-six patients with ectopic pregnancies, all of which recovered.

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References

- 1 Gordon, C A *Am J Obst and Gynec* 31 280 1936
- 2 Tenney B Jr *New Eng J Med* 214 773 1936
- 3 Cottis, G W *American Journal Surgery*, 8 1269, 1930
- 4 Levine, E C and Segall H N *Surg Gynec and Obst* 35 313, 1922
- 5 Thies, Johannes *Zentralbl f Gynak* 38 1191 1914
- 6 Lichtenstein, L *Munchen med Wchschr* 62 1597, 1915
- 7 White C S *Surg Gynec and Obst* 36 343 1923
- 8 May G E *New England J Med*, 203 1197, 1930
- 9 Maynard R L and Rees W T *JAMA* 92 1758, 1929
- 10 Appleby, L H *Canad MAJ*, 15 36, 1925
- 11 Love G R *Med Rec*, 99 58 1921
- 12 Ricci J V and Di Palma, S *Am J Obst and Gynec* 22 857 1931
- 13 Burch L E *Surg Gyn and Obst* 36 811, 1923
- 14 Tarrar L A P *Ibid* 49 454 1929

EXHIBIT SHOWS HOW LIFE TICKS

Displays that they may operate themselves by means of push buttons enable visitors to the "Story of Man" exhibition at the New York Museum of Science and Industry in Rockefeller Center to watch the rhythm of their heart-beat, measure the speed at which their muscles tire, determine the keenness of their sense of smell, and do many other things that will give them a clearer idea of how the mechanism of human life actually ticks.

The exhibition opened at the Museum on November 6 and will continue for several months. The material was constructed abroad for the Museum and is being shown for the first time in America. It includes, in addition to numerous operating exhibits, actual specimens of organs and bony structures in the human body prepared by the famous Spalteholz process, together with

demonstrations of body functions and processes dramatized in models, pictorial devices, and many other media.

In presenting this visual "Story of Man," the tale of the development of the human being begins with a group of models showing, first, the fertilization of the human ovum, enlarged 200 times, and continuing through the various phases of cell growth up to the stage where the embryo itself begins to take on form. From this point, the story is taken up in a series of actual human embryos, all Spalteholz specimens so prepared that they are transparent and show plainly the tiny bones and organs in process of formation, following the embryo from month to month up to the time of birth. A group of Spalteholz specimens of animal embryos provide interesting contrasts and comparisons.

CLINICAL EVALUATION OF TERTIARY BUTANOL HYDROGEN PEROXIDE AS A FUNGICIDE

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The treatment of dermatomycosis is essentially local. Notwithstanding several reports extolling the therapeutic efficacy of parenteral injections of fungus extracts, their use in desensitization of the individual has not met with sufficient success to warrant their continued use. Furthermore, I doubt whether their rationale in treatment is theoretically sound. They may be instrumental in attenuating the normal fungistatic elements of the skin, thus defeating the very purpose for which they are administered.

Of all the fungicides at our disposal, greater dependence can be placed on the simpler chemical substances, such as iodine, sulphur, chrysarobin, salicylic acid, potassium permanganate, and hydrogen peroxide. Of these, iodine in proper dilution has been the most reliable for general use.

An aqueous solution of hydrogen peroxide, if not for its unstable nature, should be an excellent application in mycotic infections. It undergoes a slow process of reduction with liberation of a portion of its oxygen content. This nascent oxygen has a powerful oxidizing effect and is destructive to organic matter. Fungi are facultative anaerobes and subsist on epidermic tissue. The destruction and removal of this tissue definitely inhibits their proliferation. In addition, hydrogen peroxide is directly a fungicidal agent. According to Gifford,¹ its germicidal action does not depend upon the liberated oxygen, but upon the hydrogen peroxide molecule. Certain organic substances, especially blood and pus, exercise a powerful catalyzing action on aqueous solutions, so that the oxygen is given off rapidly. A stabilized solution would liberate oxygen more slowly and we could take advantage of the effect of this nascent oxygen and simultaneously the fungicidal properties of the peroxide molecule. We have such a solution in a

preparation of tertiary butanol hydrogen peroxide.

Pure hydrogen peroxide is an unstable crystalline substance, and in the past has found its greatest use in the official *Liquor Hydrogenii dioxydi*, which represents a three per cent solution by weight H_2O_2 . At ordinary temperatures it is unstable and when dispensed is often of little practical value. Hydrogen peroxide possesses many of the same properties as water, one of which is its solubility in various solvents. A substance which dissolves water will dissolve hydrogen peroxide. For example, tertiary butanol will dissolve water or hydrogen peroxide in all proportions, whereas mineral oil fails to dissolve either to any appreciable extent.

Consequently the ideal organic solvent for hydrogen peroxide would be one difficult to oxidize and in which the peroxide is soluble in all proportions. A further requisite is that the resulting solutions be stable and capable of slow liberation of oxygen on contact with dead organic matter. Several different alcohols, both aromatic and aliphatic, have been tried with varying success. The actual number of alcohols available is somewhat limited, some being too expensive to be practical. The higher alcohols are either solid or fail to dissolve any appreciable amount of hydrogen peroxide. Other alcohols will dissolve plenty of peroxide but are themselves easily oxidized and give unstable solutions.

Table I shows the various solvents employed with qualitative results on the solvent power for water and hydrogen peroxide, the resistance of solvent to oxidation, and the stability of the peroxide solution. The grades, "excellent, good, fair, poor and very poor," are designated by "E", "G", "F", "P", and "VP". "-" signifies that a given characteristic is unknown.

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It will be seen from Table I that tertiary butanol is the best solvent from both a theoretical as well as from an experimental viewpoint since it dissolves water

TABLE I

Solvent	Solubility of H_2O	Solubility of H_2O_2	Resistance of solvent to oxidation	Stability of H_2O_2 soln.
Benzyl alcohol	P	P	G	—
Carbitol	E	E	G	G
Castor oil	V P	P	P	P
Cellosolve	E	E	G	G
Cineole	P	P	—	—
Cyclohexanol	P	P	G	—
Diethylene glycol	E	E	G	G
Dioxan	E	E	G	P
Ethanol	E	E	P	F
Ethylene glycol	E	E	G	F
Glycerol	E	E	P	V P
Isopropanol	E	E	G	F
Methyl cellosolve	E	E	G	G
4-Methylcyclohexanol	P	P	G	—
Mineral oil	V P	V P	E	V P
Sec. butanol	F	F	E	G
Sulphonated castor oil	G	G	P	F
Ter. amyl alcohol	G	G	E	G
Ter. butanol	E	E	E	E
Tetrahydrofurfuryl alcohol	E	E	G	—
Tracetin	P	P	G	G
Triethanolamine	E	E	P	V P

TABLE II

Disinfectant and organism	Phenol coefficient (37° C)
E. TYPHI	
Tertiary butanol peroxide (Perhexogen)	0 10
Hexylresorcinol 1-1000	0 03
Mercurochrome	2 66
Tincture of iodine (U S P)	18 3
Mercuric chloride	0 77
Merthiolate 1-1000	0 60
Metaphen 1-500	3 58
Zonite	2 86
Listerine	0 02
Pepsodent	0 15
S. AUREUS	
Tertiary butanol peroxide (Perhexogen)	0 062
Hexylresorcinol 1-1000	0 06
Mercurochrome	5 33
Tincture of iodine (U S P)	22 3
Mercuric chloride 1-1000	0 16
Merthiolate 1-1000	0 06
Metaphen 1-500	4 50
Zonite	1 60
Listerine	0 09
Commercial hydrogen peroxide	0 012
E. COLI	
Tertiary butanol peroxide (Perhexogen)	0 080
Commercial hydrogen peroxide	0 014
Hexylresorcinol 1-1000	0 08
Mercurochrome	2 4
Mercuric chloride 1-1000	0 133
Merthiolate 1-1000	0 427
Metaphen 1-500	0 85
M. ALBICANS	
Tertiary butanol peroxide (Perhexogen)	0 070
Comp. solution of cresol	3 0
Mercuric chloride 1-1000	0 076
Hexylresorcinol 1-1000	0 067
Formaldehyde	2 5
Potassium permanganate	7 0
Tincture of iodine (U S P)	32 4

and hydrogen peroxide in all proportions, is difficult to oxidize, and gives a stable solution

The preparation of the peroxide solution in tertiary butyl alcohol is outlined by Milas and Sussman²

To 100 cc of 30 per cent hydrogen peroxide was added 400 cc of pure tertiary butyl alcohol and the solution treated with small portions of anhydrous sodium sulfate whereby two layers separated out. The alcohol layer, which contained most of the hydrogen peroxide, was removed and dried with anhydrous sodium sulfate (Drierite). A solution of 6.32 per cent hydrogen peroxide in tertiary butyl alcohol was obtained, giving a recovery of 93.8 per cent. This solution can be easily concentrated by vacuum distillation of the alcohol at room temperature to any desired concentration without any loss of the peroxide, provided an all-glass apparatus is employed. When hydrogen peroxide solutions of this sort were allowed to stand at room temperature for over six months, only a small decrease in hydrogen peroxide concentration was noted.

The properties of tertiary butanol hydrogen peroxide are as follows: *Assay*—About seven per cent H_2O_2 , although it can be made in any strength. *Practically* all of the other ninety-three per cent is tertiary butanol. *Inert substances present*—Water and a trace of sodium sulphate. The amount of water is quite low but there is no method available to determine it. *N. V. M.* about 0.05 per cent. *Surface tension*—Twenty-five dynes per cm (Water 71 dynes per cm) at 25° C. *Reaction*—Acid (methyl red). *Specific gravity*—0.850–0.859. *Preservative*—A trace of metaphosphoric acid.

The type of container used for the peroxide solution is important. A glass bottle of low free-alkali content is necessary. This bottle should be cleansed thoroughly with sulfuric and nitric acids before use to remove the free-alkali left after manufacture. Ordinary and ultraviolet lights appear to have no effect so that a white glass bottle may be used. This is not true of the ordinary aqueous solutions which deteriorate rapidly on exposure to air and light. The type of cap liner is important since many of these are destroyed by the peroxide. Tinfoil, Vinylite or cork liners are best. Bakelite or metal caps are also satisfactory.

The peroxide is fairly stable from 0-50 but over 60° C there is some decomposition. It may be said that the product is stable over all ordinary temperature ranges. It may be diluted with water or alcohol in all proportions although such solutions, especially the alcoholic, are not very stable. The amount of water which the product may pick up from the air is not deleterious.

Assay of Its Antiseptic Value

Phenol coefficients and cup plate tests have been done by the Food and Drug Administration methods.³ These results have been compared with the findings of McCulloch on other antiseptics. It must be remembered, however, that the results of different workers vary considerably. In addition, the activity of an antiseptic on a culture plate is not necessarily an index of its activity when in contact with organisms in animal tissue. The fungus used in this test was the *M. albicans*. Comparative tests were also performed with *E. typhi*, *E. coli*, and *staphylococcus aureus*. Table II compares the phenol coefficient of tertiary butanol peroxide with other antiseptics. The latter determinations are from McCulloch.⁴

Unless otherwise noted, the coefficient applies to the pure or original substance. The tertiary butanol peroxide contains seven per cent hydrogen peroxide. Mercurochrome figures are for the solid, not for the usual two per cent aqueous solution. The coefficient of this would be two per cent of the value given. Figures for Zonite, Listerine, and Pepsodent are for the commercial antiseptics as sold.

During the clinical use of tertiary butanol peroxide, it was suggested that much of the benefit derived might be due to the vehicle instead of its peroxide content. This is not so, since tertiary butanol appears to have little germicidal activity, which was proven clinically. In general, it may be said that the greater the number of carbon atoms in the alcohol the greater is its germicidal efficiency. However, if the chain of carbon atoms are broken up as in secondary and tertiary alcohols, the toxicity for pathogenic organisms is decreased. The figures in Table III, taken from McCulloch⁴ illustrate this.

Therapeutic Results

The therapeutic activity of tertiary butanol peroxide has been observed for a period of six months, during which time it has been used in cases of dermatomycosis. I am able to report thirty-two cases. It is extremely difficult to keep patients with fungus infections of the feet under observation as they fail to return when they gain relief. At least an equal number failed to return or continue under observation for sufficient time to include them in this report. A large majority of these showed marked improvement and many of them were probably cured. The cases reported are those which were observed over a sufficient period to assure that they were probably rid of the infection. In some cases infection of the nails will in the future, result in a reinfection of the epidermis. A one per cent solution was used and found

TABLE III

Alcohol	Phenol coefficient for <i>E. Typhi</i>
Methyl	0.026
Ethyl	0.040
Butyl	0.237
Hexyl	0.45
Sec butyl	0.152
Ter butyl	0.081
Ter amyl	0.082

most satisfactory. The greater concentrations were found too painful on the broken skin to be practical. Table IV designates briefly the type of cases treated and summarizes the results. Nineteen patients (sixty per cent) were clinically cured, nine (twenty-eight per cent) showed definite improvement. Only four patients failed to improve or became worse under treatment.

Experience has shown that the preparation cannot be used on very acute cases where moist dressings are indicated. Its use following the subsidence of the acute reaction has been quite effective in practically all patients. The cases showing the most remarkable results have been those with maceration, vesiculation without edema, and those with desquamation of the soles following the rupture of "dry vesicles." It is also effective in relieving temporarily, associated hyperhidrosis. Incorporation of the preparation in an ointment has not been satis-

TABLE IV

Nome	Sex	Age	Location	Diagnosis	Other manifestations	Duration	Improvement rate	Final result	Remarks
G S	F	36	Feet	Dermatophytosis		6 weeks	3 weeks	C	
R D	M	14	Feet	Dermatophytosis		2 years	3 weeks	Imp	Maceration 3rd right inter space and dorsum of toes
L D	F	60	Feet	Dermatophytosis	Onychomycosis of left second nail	6 weeks	3 weeks	C	Discontinued treatment
B S	F	49	Hands	Erosio interdigitale	Generalized dermatophytide	2 years	2 weeks	C	Body and hands treated by soothing applications
O T	F	48	Feet	blastomycetica		6 months	3 weeks	Unimp	Patient did not avoid soap and water
H O C	M	38	Feet	Dermatophytosis		2 months	3 weeks	Imp	Severe case with many bullae on toes and soles
C R L	M	54	Hand	Erosio interdigitale	Squamous dermatophytide on hands	1 month	2 weeks	C	Vesicular dermatitis on 3rd and 4th toes on right foot
L S	M	2	Scalp	blastomycetica		2 months	6 weeks	C	
J V	M	64	Hands	T Capitis		1 month	2 weeks	C	
M L	F	60	Hand	Dermatophytosis		2 months	6 weeks	C	
M R	F	24	Feet	Erosio interdigitale		1 month	2 weeks	Unimp	M Lanosum
J B	M	52	Hands	blastomycetica	Dermophytide of hands	3 months	2 weeks	C	Lesions irritated
H E	F	6	Feet	Dermatophytosis		1 month	2 weeks	Imp	Hands treated with wet dressings
M S	M	37	Feet	Dermatophytosis	Dermophytide of hands	2 weeks	7 weeks	Unimp	No lesions elsewhere
D M	F	42	Feet	Dermatophytosis		5 weeks	1 week	C	Hands treated with wet dressings
A A	M	53	Feet	Dermatophytosis		2 years	3 weeks	Imp	
E M	M	65	Feet	Dermatophytosis		6 months	2 weeks	Unimp	Irritated lesions
F K	M	41	Feet	Dermatophytosis	Dermophytide on leg	6 years	11 weeks	C	
E B	M	25	Feet	Dermatophytosis		2 years	9 weeks	C	Hands irritated
B C	F	20	Feet	Dermatophytosis	Onychomycosis	2 months	1 month	Imp	
J S	F	31	Feet	Dermatophytosis	Generalized dermatophytide	6 months	3 weeks	C	Nails unchanged
N B	M	76	Feet	Dermatophytosis		8 years	9 weeks	C	Vesiculo-squamous, maceration of toes
H K	M	42	Feet & Crotch	Dermatophytosis		4 years	2 weeks	C	Crotch treated with roentgen rays
L C	M	56	Feet	Dermatophytosis	None	10 years	2 months	C	Maceration between toes and few dry vesicles on soles
E M	M	65	Feet	Dermatophytosis	Varicose eczema of legs	Indefinite	7 weeks	C	Eczema treated with Las-sar's paste
B S	F	42	Hand	Erosio interdigitale		Indefinite	2 weeks	Imp	
C T	F	48	Feet	blastomycetica		1 month	4 weeks	Imp	Hands treated with wet dressings
W R	M	46	Feet	Dermatophytosis	Dermophytide of hands	2 weeks	1 week	V M	Maceration vesicles of great toe and 4th and 5th left interspaces
L K	F	7	Feet	Dermatophytosis	None	6 weeks	4 weeks	C	Vesicles and maceration extending onto dorsum
H F	F	6	Feet	Dermatophytosis	Dermophytide of hands	2 months	2 weeks	Imp	Hands, no change
L S	M	2	Scalp	T Capitis		2 months	3 weeks	C	M Lanosum
M R	F	24	Feet	Dermatophytosis	Dermophytide of hands	Indefinite	2 weeks	C	Ung. Ac. Borne to hands

* C-Cured Imp-Improved V M Imp-Very much improved Unimp-Unimproved.

factory This was probably due to the instability of the peroxide in this type of base

All the patients applied the solution two or three times daily with a cotton swab or camel's hair brush They were told to avoid the use of soap except those with tinea capitis In these cases daily shampoos were prescribed Constant exposure of the hands to the one per cent solution does not appear to be damaging However, the six per cent solution is quite painful, even on the unbroken skin

Conclusions

- 1 Tertiary butanol is an ideal vehicle

for hydrogen peroxide It is not readily oxidized and forms a solution in all proportions which are stable under all ordinary conditions

2 Perhexogen (tertiary butanol peroxide) is an effective fungicide, easily applied, rapid in action, stainless, and practically odorless

80 W 40 St

References

- 1 Gifford H *Med Rec* 34 234 1888
- 2 Milas N A and Sussman S *J Amer Chem Soc* 58 1302 1936
- 3 Ruchle C L A and Brewer C M *U S Dept of Agri* 198 December 1931
- 4 McCulloch E C *Infection and Sterilization* Lea & Febiger, Phila 1936

TREATMENT OF THE INDUSTRIAL BURN

JOHN J WITTMER, M D, Brooklyn

In the treatment of burns, regardless of the causative agent or degree, a treatment should be selected calculated to give the shortest period of disability with a minimum of pain and permanent deformity. In any but superficial burns, success can be achieved only from the intelligent and persistent execution of an adequate program. In the main, superficial and minor burns may be treated by the general practitioner, but the treatment of deeper and more extensive burns is a definite surgical procedure.

Long before our present day conception of asepsis, the toxemias and the treatment of shock were recognized, but the vast majority of all severely burned patients and those with even superficial burns covering a large area, generally died.

Time does not permit a resume of all the earlier methods of treatment or the discussion of the various types of experimental work which was carried out and which brought the attention of the medical profession to the cause of death. This experimental work has resulted in a more rational treatment and greater saving of life.

The cause of burns may be divided into five classes

- 1 Moist or dry heat
- 2 Fire.
- 3 Chemicals
- 4 Actinic radiant energy
- 5 Electricity

Burns from any of these causes produce lesions which are essentially similar.

In classifying burns as superficial, we include all those in which the skin epithelium is not completely destroyed.

Systemic reaction, Toxemia Aside from the initial shock caused by excessive burns the real problem concerns the systemic reactions of a toxic nature which may be of sufficient severity to jeopardize the patient's life. It is stated that the severity as concerns life, depends not so much upon the depth of the trauma or the gross amount of tissue actually destroyed, as on the extent and location of the skin

area involved. Living skin, when subjected to burning, is capable of developing certain chemical by-products the exact nature of which is unknown and which when absorbed into the circulation produce definite systemic reactions. In this report, skin differs from other tissues, such as that of fat or muscle, wherein burning is accompanied either by a very minor degree of such a reaction or none at all.

Aldrich¹ believes that the toxemia of burns is the result of massive infection of the burned area with hemolytic streptococci. This may be an added factor in some instances but bacterial infection as the sole cause of toxemia is not borne out by other writers.

The burning of certain particular skin areas seems to be accompanied by the development of more severe grades of toxemia than other areas of similar extent. This is particularly true of the so-called "blush area," which comprises the face, neck, and upper torso especially the anterior part of the chest wall. The rich blood supply of this area and particularly its sensitive vasodilatory capillary system doubtless partly at least accounts for the rapidity and degree of toxic absorption.

There is apparently a definite latent period of about eight hours between the occurrence of a burn and the beginning of toxic absorption since it has been shown experimentally that if complete excision of a burned skin area be performed within such a period the toxic constitutional reaction does not develop whereas if excision be delayed beyond this latent period the procedure of excision is without avail. The eight hour latent period of toxic absorption as just described, represents not the interval beyond the limits of which clinical symptoms of toxemia may be expected to appear, but only the period beyond which the surgical eradication of the local lesion can no longer be depended upon to prevent the subsequent development of toxemia. The clinical symptoms of toxemia do not ordinarily appear for

*Read at the Annual Meeting of the Medical Society of the State of New York
Rochester May 25 1937*

from twenty-four to forty-eight hours, or even longer, after the infliction of a burn. That the development of burn toxemia depends upon absorption of toxin by way of the blood stream is apparently demonstrated by the fact that toxemia does not take place if the vascular drainage from the burned area be interrupted by ligation of afferent blood vessels.

Last year Wilson, Rowley, and Gray reported the successful use of Eucortone, an extract of suprarenal cortex, used as an adjuvant measure in the treatment of three cases of definitely established severe acute toxemias following burns, with recovery in each instance. They intend to carry on further investigation of the action of this extract.

Blood concentration This concentration is directly the result of loss of fluids by way of the burned area, and it varies with the severity and the extent of the burn.

Underhill³ has reported clinical increases of hemoglobin up to 145 per cent. This blood concentration may in itself cause death because the viscosity may lead to impairment of capillary circulation diminishing of oxygen-carrying capacity of the blood lowering of temperature, suppression of urinary secretion and suspension of the vital activities.

Locke⁴ analyzed the erythrocyte count in nine cases of severe burn and found that in five cases in which the count exceeded 9 000,000 to the count, all the patients died whereas the other four persons wherein the count was less than 7 260,000, recovered.

Pack⁵ believes that the maintenance of a forty percent increase in the hemoglobin is inconsistent with life.

Chloride retention The researches of Underhill,³ later established by other investigators, show the chloride content of the blood in burns is characteristically considerably reduced, in severe cases reaching fifty percent. This reduction of the blood chlorides is not accompanied by a corresponding urinary chloride excretion, in fact, the very opposite effect occurs, the urine showing a markedly decreased chloride output. Therefore the maintenance of the proper proportion of blood chlorides seems to be another field for investigation in the treatment of burns.

Burn toxemia The clinical manifestations of toxic absorption usually appear only after twenty-four to forty-eight hours and consist of (1) elevation of temperature, (2) rapid pulse, (3) vomiting, and (4) drowsiness or delirium. The development of such symptoms may be expected to occur in all cases of extensive burns even though very superficial.

Pack⁵ considers as serious all burns deeper than first degree which involve one-tenth or more of the body surface. Burns deeper than first degree, which involve more than one-third of the body surface, may result fatally, and those involving more than two-thirds usually do result fatally in adults. Much less extensive burns in children terminate life.

The estimation of the severity of burns in accordance with their extent, relative to the total body surface is, of course, a rather inaccurate method, but it suffices in ordinary clinical cases.

Berkow⁶ has estimated the distribution of the body surface as follows:

Lower extremities (including the buttocks)	38%
Trunk (including neck)	38%
Upper extremities	18%
Head	6%
	<hr/> 100%

The hand accounts for one-fourth of the surface of the upper extremity. The foot accounts for one-sixth the leg one-third, and the thigh one-half of the surface of the lower extremity.

Treatment

The treatment of burns can be conveniently divided into two parts, treatment of the local lesion and treatment of the prevention of systemic reaction.

Shock

In the early stages of burns, i.e., before the end of eight hours, before toxic absorption has yet occurred there is real danger that the general condition of the patient will quite escape the attention of the medical attendant in his zeal to do something locally, particularly so, if he possesses the information that the local wound is the source of toxemia and is attracted to this area by the silent or expressed entreaties of both the patient and

TREATMENT OF INDUSTRIAL BURN

November 15, 1937

his friends. No undue anxiety need be felt, however, in the usual case of thermal burns, to hasten in the matter of local treatment, since a number of hours of grace are allowed by nature before the beginning of the onset of the other main factor in mortality—toxemia.

Treatment directed toward the relief of local conditions is contraindicated in the presence of shock. The truth of this is too rarely appreciated, and it is a common sight in some hospitals to observe the medical attendant laboring with the removal of clothing, cutting away blebs, and washing away contaminating debris, while the patient's systolic blood pressure is less than seventy, sixty, or even fifty mm of mercury, and the exposure incident to the manipulation is constantly adding in the further dissipation of heat from a body which already manifests a subnormal temperature. Therefore, the shock of hasty and unwise local treatment added to the shock already present as the result of the original burn, will undoubtedly precipitate a needless death.

The treatment of burn shock differs in no essential particulars from the treatment of shock otherwise induced. The essential features are the administration of large doses of morphine, the maintenance of body warmth by the application of external heat in a light tent or by hot water bottles and internal heat in the form of warm drinks or intravenous infusion, the lowering of the head to combat cerebral anemia, and the promotion of quiet and rest under the watchful eye of a competent attendant. During this period, local treatment may be completely disregarded except for the prevention, as far as is feasible, of adventitious local contamination. For this purpose the wounds may be simply covered with a sterile sheet or towels. It is again emphasized that toxic absorption does not occur for several hours, a period of time ample both for the treatment of the shock and for the institution of suitable additional treatment after the period of shock has passed.

Two important exceptions must be mentioned

1 In these cases in which the patient's clothing has caught fire the utmost care must be exercised immediately after the patient is seen to make sure that no smoldering material has been overlooked in the excitement

of transporting the patient to the medical adviser.

2 In attending cases of chemical burns one peculiarity of the traumatizing agent must be remembered, a prolongation of action is maintained until neutralization of the active agent is accomplished, either by natural or artificial means. Patients burned by chemicals should be quickly treated locally to assure complete neutralization of the chemical reagent before anything else is done. The neutralizing property of alcohol in connection with phenol burns can be involved immediately. In most other cases copious gentle washings with water is indicated, after which, application of an agent may be employed, weak acids for strong bases and vice versa.

In addition to the shock caused by an extensive burn, a condition of anhydramia also results. If a burn involves one-sixth of the surface area of the skin the loss of fluid in twenty-four hours may equal seventy per cent of the total blood volume. Rubner has shown that in starvation, an animal can live after loss of nearly all its glycogen and fat, one-half of its protein, and nearly one-half of its body weight, but that it dies from loss of one-fifth of its water. The fatal influence, therefore, of the great loss of fluids in burns is apparent. With such depletion the blood becomes concentrated, the circulation slowed, and the blood loses oxygen. Partial asphyxiation results, metabolic processes become altered, the heat regulating mechanism becomes impaired, the temperature falls and vital activities are suspended.

Here again the fact must be emphasized that the burn itself is relatively unimportant at first. Therefore attention to the systemic effects of the injury should embrace, besides the usual measures against pain and fall in temperature immediate intravenous administration of 1000 cc of normal saline solution at a rate not greater than 25 cc a minute, and thereafter fluid, particularly normal saline solution, should be introduced by every available channel in the amount of from four to eight liters in each twenty-four hours, until the capillaries have lost their abnormal permeability, fluids are retained, and the concentration of hemoglobin and of chlorides in the blood approach normal. Usually the critical period has passed in from twenty-four to forty-eight hours.

Local Therapy

1 Debridement Granted that chemical agents have been successfully neutralized and shock is absent or has been successfully combated, the attention is now focused on the local lesion. The first act is complete debridement in an effort to convert a contaminated wound into a clean one. If the contamination is superficial and does not involve a large area, the application of a paste of sodium bicarbonate made with warm water will frequently cleanse the area in addition to relieving the pain. This treatment is always applicable to a first degree burn where debridement is not necessary.

The contamination may be such, however, as to make necessary administration of a general anesthetic, following which the burned area is either thoroughly scrubbed with a sterile scrubbing brush and sterile water or saline solution until the area is completely clean, or resort is made to instrumental removal of contaminated tissue. This form of treatment is generally applied where there is charring of the tissue or in other deep burns of limited extent.

Blebs are punctured and cut away with scissors and the entire area finally thoroughly cleansed with some nonirritating fluid like normal saline solution. After the area has been thoroughly debrided and all vesicles removed as described, we prepare for the next step.

Fixation Method with Tannic Acid

The use of tannic acid was introduced by Davidson in 1925. The latest modification of Davidson's treatment is to spray the denuded area with a freshly prepared solution of five per cent tannic acid, until a coagulum of fair thickness has been established. Loose dressings are then applied and kept saturated with the tannic acid solution for twenty-four hours, or until the burned area is tanned a mahogany brown. When the burned area is sufficiently tanned all dressings are removed and the patient is placed in a tent to avoid pressure of the bed clothes.

In cold weather the inside of the tent is warmed by means of electric lamps and maintained at a temperature between 95 and 100 degrees F. Sterile pads or

sheets are always kept beneath the burned areas that rest on the bed.

Infection can and often does occur beneath the tanned area, but careful cleansing of the burned area prior to the application of the tannic acid will tend to reduce the incidence of infection. If pus forms, an incision is made in the crust and drainage established.

There are now available on the market various proprietary preparations containing tannic acid jelly plus a germicide. These preparations are stable and well-adapted for use on patients who have a small burned area and who do not require hospitalization.

If the burn is superficial, epithelization will proceed under the dried coagulum, but if the burn is deeper the tannic acid crust that separated between the fourteenth and twentieth day will leave a clean granulating surface, upon which skin grafting may be done.

Davidson bases his treatment on the theory that the toxin present in the red cells was due to the absorption of the products of protein autolysis at the site of the burn. In order to limit this absorption he produces a coagulum of the devitalized tissue only by the application of tannic acid. The dry crust thus produced presents loss of tissue fluids which leads to a lowering of the sodium chloride of the blood.

In addition, the tannic acid applications produce a definite analgesia and does not affect the normal skin. The advent of sepsis is usually prevented by the dry coagulum which forms an unfavorable medium for bacterial growth.

Up to this time we have dealt only with the tannic acid treatment of second and third degree burns.

You will recall that it takes many hours before the coagulum becomes dried and brown, during the interval the patient must be watched closely from rubbing the burned surface against the tent and removing the coagulum. Bettman⁷ overcomes the delay in the tannic process by fixing the coagulum and then immediately spraying with ten per cent solution of silver nitrate. This process shortens the time of hardening of the coagulum to two or three hours. Without the silver nitrate the hardening time is between twenty-four and twenty-six hours. The addition of

the silver nitrate adds an antiseptic action in the presence of a moderate degree of infection

Some authors have employed a two per cent solution of gentian violet, spraying it on in the same manner in which the tannic acid is applied. This solution also forms a membrane over the burned surfaces, much like tannic acid, and it is claimed that the incidence of infection is lowered due to the antiseptic action of the gentian violet. Other writers have employed a mixture of tannic acid and gentian violet.

Ointments containing any form of medication are contraindicated in the treatment of large second or third degree burned surfaces. They tend to cause maceration about the skin margins and prevent the formation of epithelium. When the wound has become cleansed it is far better to leave it exposed to the air without covering, applying a liberal coating of stearate of zinc, which, being a mild astringent, has the property of drying any of the areas where epithelization has begun.

Skin Grafts

When the burned areas involve the region of the joints it is well to apply traction during the process of healing. More important, however, is skin grafting in the regions of the joints, employing either Thiersch, Reverdin or pinch grafts.

To those of you who have employed tannic acid, you know that when nearly two weeks have elapsed, tannic acid crusts loosen and fall off or may be removed entirely. Healing has taken place but an area of granulation may be present. The granulated area is then prepared for the reception of skin grafts. It is frequently found difficult to entirely rid the area from pyocyanous and staphylococci despite frequent dressings with Dakin's solution or other antiseptics. In preparing these surfaces for grafts, therefore, the granulation should be entirely removed by means of a curette. Small areas of two or three inches should be curetted at one time immediately followed by the firm application of hot compresses to allay bleeding while curettage is being carried on in another section of the same granulating area. When large areas are in-

volved, a general anesthetic may be necessary. In smaller areas, circular nerve block with one-half per cent novocain is sufficient. After all granulations have been removed, compresses saturated with Dakin's solution should be applied every three or four hours and kept wet with the solution care being taken to protect the surrounding skin from irritation by the Dakin's solution. At the end of three or four days, examination of the burned area will reveal a bright red, healthy-looking and pus-free area which is now ready to receive skin grafts. The type of skin graft employed will, of course, depend on donor area available.

Treatment of Electric Burns

Electric burns differ from all other types of burns. The degree of heat is far more intense and the general aspect is radically different from the pathological picture of any other type. The intense heat observed in the electric contact burns, is not found in the so-called flash burns.

A flash burn is produced when an electric arc is formed close to the body but the current does not go through the part. The severity of the burn depends upon the proximity of the tissues to the arc and the length of time that the arc is maintained. These superficial burns do not differ in any material way from the ordinary burn or scald.

By contrast, in the case of an electric contact burn, the surface of the body forms one of the poles of the electric arc. The electric current passes through the body and the degree of heat attained at the point of the surface of the body when the contact is made is the temperature of an electric arc. If a burn is produced, no matter how small, an electric arc must have been formed. If the contact is so perfect that sufficient resistance is not introduced to develop an electric arc, the body simply sustains an electric shock which might produce anything from a slight tingle to instant death.

The temperature of an electric arc varies from 5500 to 7000 degrees, whereas the temperature of the acetylene torch is 4500 degrees.

This intense heat presents a characteristic picture

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Discussion

DR DAN MELLEN, *Rome*—Dr Wittmer has given us a splendid paper. He emphasizes that treatment for extensive burns is a definite surgical procedure, and he has clearly separated the causes of burns into five classes. Here very important information is given when he speaks of the latent period of eight hours between the beginning of a burn and the beginning of toxic absorption. He states that burn shock is essentially no different from shock of any other cause and that too often this condition is overlooked when that is the time to fortify against it.

His report on the blood study is interesting. Loss of body fluid is another point of

which Dr Wittmer has spoken emphatically and here he suggests that we correct this depletion of fluid in every manner possible. He warns us to make all wounds as surgically clean as possible. There is no doubt of our interest and we are grateful for his complete description of his tannic acid treatment. Another important message he gives us is that salves used in the treatment of a large area are of very little value. Anyone who has cared for an electric burn will agree with Dr Wittmer that they are certainly more difficult to treat than other burns. Relative to this he suggests that burned areas be resected before the state of serum formation begins.

THE CHARGE OF THE WHITE BRIGADE

Fear not the young nurse who stands by
the side

Of your man, when he's sick and in
pain,

For after a siege with his grunts and his
groans

She'll give him up gladly again

She may woo him to sleep with her voice
as she lays

Her cool hands on his poor fevered
brow,

But remember, you wives, that this menace
in white

Sees him not with the eyes of his frau

To her, he's a bulk to be freed of its pain

Just a means of her own daily bread

He gets egg on his sheet, and toast in
his hair

And his feet dangle out of his bed

He snores all night long with his mouth
open wide

While his teeth float around in a glass

No sex appeal lurks in that bewhiskered
chin

And his chorus is minus all class!

So lay yourselves down all you green-eyed
young wives

On your bed, and well know while you
rest

That this treasure of yours is as safe with
his nurse

As a bird on a bough in its nest

He may answer the maidenly prayer of the
one

Who got him for better or worse

But whatever his assets or charms to his
wife,

He's a pain in the neck to his nurse!

C M C in the *Journal A M A*

REFUGEES FIND REFUGE

Four German physicians, exiles from their native country, who had applied in Supreme Court for a mandamus compelling the State Board of Regents to license them to practice here, were notified on Oct. 20 that their licenses had been granted. The suits had been sought on the ground that the State Board had refused to recognize that any foreign physician with credentials showing that he had practiced for at least five years, was entitled to a license.

The physicians all of New York City are Dr Jeanette Sakheim, of 1776 Clay Avenue, Dr Benno Leigner, of 604 West 112 Street, Dr Max Loeb of 390 West End Avenue and Dr Norbert Lewin of 312 West Ninety-second Street.

"No children!" exclaimed a friend to a young matron who had been married several years. "And your husband wants an heir so badly."

"Yes I know," replied the woman sadly. "He's heir minded but not heir conditioned."

—*Medical World*

Professor Kranz: "What did you find out about the salivary glands?"

Stude: "I couldn't find out a thing. Professor, they're too darn secretive—*Purple Parrot*"

What the individual doctor is—that makes the Society—Dave Sugar in the *Detroit Medical News*

Examination of a victim of an electric contact burn may simply present a single small innocent appearing blister, but if the superficial blister is carefully cut away there is noted a central area of white necrosis surrounded by a narrow ring of hyperemia and edema. The size of the central area of necrosis is naturally dependent upon the size of the contacting electrode. The area involved is usually pyramidal with the top of the pyramid at the surface of the skin.

As a rule, in from thirty-six to forty-eight hours an electric burn loses its dry, crisp, circumscribed appearance, and becomes a serum saturated area with disintegrating walls and floor, progressing to profuse purulent secretion, large sloughs bathed in pus, exuberant granulations uncontrollable to the most radical antiseptics.

This disorganization may include muscle, tendon, joint capsule, even bone itself.

After a varying period of the treatment aforementioned, apparently unduly tedious and prolonged, firm granulation ultimately ensues and the final result will be the same as that ordinarily secured in other comparable burns. The period of disability will be greatly shortened and the certain extensive scar formation will be decreased by the application of the surgical principle of complete resection of the burn area before the stage of serum formation begins.

The application of this principle of complete resection and immediate closure by suture or skin graft to third degree electrical burns, produces surprisingly and uniformly satisfactory results.

The method has its limitations, the line of demonstration may not be sufficiently clear in tendons, cartilage or bone to warrant immediate resection of the eschar. Essential structures, such as large vessels, nerves, and joints, should certainly be spared if there is any doubt in the operator's mind as to their possible visibility.

Welles states that experience has taught

that the great majority of electric burn cases are far more successfully handled by complete resection and immediate closure by suturing and skin grafts, than by any other method.

First Aid Treatment

The first aider should be taught only the elemental procedures in the treatment of burns and particularly "that the less that is done, the better." Certainly the measures should be those of an obviously preliminary character that later can be maintained and continued by the doctor. They should be confined to (1) Putting out the fire or neutralizing the chemical, (2) Give fluids by mouth if patient is able to swallow, (3) Saturate parts with solution of bicarbonate of soda or fresh solution of tannic acid, (4) Cover parts with sterile dressings (loosely).

Summary

1 Shock must be considered as of primary importance and treatment instituted immediately.

2 Fluids are vitally necessary.

3 Debridement at an early stage may be the determining factor between life and death.

4 Tanning of the burned area prevents loss of tissue fluids, retards pus formation, and stimulates granulation.

5 Skin grafts should be used judiciously and particularly over joints to prevent deformities.

6 Electric contact burns command more respect than other burns. One must not be misled by the appearance of the area when it is first seen.

7 Ointments of any kind are definitely contraindicated in second and third degree burns.

8 First aid by the layman should be kept to a minimum and he should be allowed to do only the first rudiments of the treatment outlined above.

79 FENIMORE ST

References

- 1 Aldrich, H. *New Eng Jour Med* 208 299 1933
- 2 Wilson, Rowley and Gray. *Lancet*, June 1936
- 3 Underhill, Fisk and Kaplanew. *Amer Jour Physical* 95 334, 1930
- 4 Locke, H. *Clin Jour* 62 200, 1933
- 5 Peck, W. E. *Research Phys Ther* 12 327 1931
- 6 Berkow, S. J. *JAMA*, 90 1708 1928
- 7 Bettman, A. C. *Northwest Med* 34 48 1935
- 8 McClure and Allen. *Amer Jour Surgery* 28 370, 1935

Preventive Medicine

"Should He Have Died of Heart Disease?"

Preventive Medicine and Cardiovascular Disease

CHARLES H. GOODRICH, M.D., Brooklyn
Presidential Address

As we begin the consideration of this fascinating subject it is desirable to reach a mutual agreement as to terms. In the old days several kinds of heart-disease were emphasized but not myocarditis which now is very stylish with fantastic decorations. In the same old days these were isolated well-separated, clinical entities. Now we find that the very prevalent myocarditis is interwoven with nerve-impulses, arterial changes, hyper- and hypotension with resultant degenerative changes in viscera or extremities. Thus we understand cardiovascular disease to be a combination of an overacting heart with tense spastic arteries, or an anemic frail heart with relaxed or spastic arteries, in either case a fibrosis so distributed in the circulation tubes that *maximum effect* upon function and structure alike *may be at any point* in the circulatory apparatus. Thus may be ultimately associated chronic hepatitis, splenitis, chronic nephritis, arteriosclerosis, especially important in the arteries of heart and brain, chronic myocarditis with fibrosis and enlargement, aortitis, and other things. All may be present if the disease is far advanced. "Except in the brain, and perhaps the kidneys, changes in the arteries nowhere else in the body exercise so profound an effect upon the organ to which they distribute blood as in the heart" (Alfred Cohn). This is our conception of the newer clinical entity which replaces or combines a number of old enemies proven to be interdependent and originating similarly.

What are these similar origins? They are legion. Quoting Turner "Everything has a cause and the cause of anything is everything." This expresses in a few words the idea that almost every occurrence of importance has causes innumerable tangled in unbelievable complexities. A factor in most cases of cardiovascular disease is hypertension. What comes first? Sometimes we think one—at other times another. In essential hy-

pertension there is discoverable no tissue lesion. Yet if the hypertension exists long enough fibrotic tissue alterations invariably take place in heart, arteries, brain, liver, and kidneys. These cases are mostly busy, keen male workers, who do everything 'hard' especially physical or mental work, exercising eating, drinking, smoking and other indulgences. The ratio of female cases increases as women lead similarly tense lives. A second group of hypertonics appear where primary changes are in arterial wall and gradually involve kidneys and heart. The third group are the primary nephritis cases with cardiovascular fibrosis trailing along. Then there is the fibrosis or sclerosis of old age which does not always wait until old age to develop.

"There are two kinds of years, calendar years and tissue years" (Townsend). Longevity is a vascular affair. It depends upon the tubes transmitting the vital fluid to all tissues, and the heart muscle the propelling engine. Fibro-degenerative changes in the "vital rubber" of the walls depend upon the inherited quality of the rubber or the wear and tear to which it is exposed. That inheritance plays some part is evidenced by family groups who develop early cardiovascular disease, without relation to any other known cause. Poor material must have been used in the construction of the engine or the tubing or both. Aside from these cases the usual cardiovascular disease results from the bad use of a circulatory apparatus constructed of materials of first quality.

Perhaps the first question in prevention is should members of families with numerous case-records of early deaths (at 25-45) procreate? This is a wide open question. Cardiovascular disease is usually transmitted by criss-cross inheritance where the sexual powers (not desires) are fairly balanced. (Sons of sclerotic mothers and

Read at the Annual Meeting of the Third District Branch, Kingston, September 30, 1937

DIPHTHERIA OF THE SKIN

ISIDORE PINCUS, M D, *New York City*

There have been few reports of this rare condition in this country,^{1,2} with an excellent summary of the literature by Knowles and Frescoln. The types of skin involvement by the Klebs-Loeffler bacillus can be classified into three groups, (1) Cases characterized by false membrane production, (2) Cases characterized by one of many dermatologic lesions as bullae, vesicles, pustules, etc with no characteristic clinical picture, (3) Cases of wound diphtheria.

The case herewith reported is interesting from two aspects. It is one of the false membrane, paronychia-like types described in the European literature³ but not reported here. Then, it remained undiagnosed for eight weeks, was admitted to a leading general hospital, had an incision done on an enlarged cervical gland, remained a week and was discharged with no thought of diphtheria in the minds of the staff.

Case Report

I W, female, five years old, seen at home February 19, 1937, complaining of fever, generalized itching eruption, paronychia-like lesions of the fingers, and bloody nasal discharge.

The child had recently come from Germany, and became ill one week after landing. The first symptoms began about December 23, 1936 with a slight bloody discharge from the nose, an increasing swelling of a gland on the left side of the neck, and fever of about 101–102°F.

She was treated by physicians at home until January 11, 1937 when she was sent to one of our leading hospitals for incision of a deep cervical adenitis, as it was described. A smear and culture taken from the throat only showed a hemolytic streptococcus. As far as could be determined no pus was found in the gland. At this time the child had a lesion at the base of the nail of the right thumb.

At the time of discharge on January 18 she still had some fever and was still sick. Thereafter, the patient was seen in the pediatric clinic of the hospital. The right index finger showed the same lesion as the thumb and a little later the left index finger became involved in the same way. The diagnosis of fungus infection was made and a keratolytic ointment used which aggravated the condition and was soon stopped.

On February 14, the patient developed a generalized itching eruption, a higher temperature, and was seen by the author five days later.

At this time, the temperature was 103.5°F. There was a generalized urticaria. The nares showed bloody crusts and a profuse bloody mucous discharge. The throat showed pharyngeal and tonsillar congestion.

The fingers showed a most interesting picture. On the skin at the base of the nail enumerated above was a gray white membrane about one cm in its largest diameter slightly raised above the surface of the skin. It was moist, surrounded by a bright erythema in which were some pinpoint superficial vesicles. The nails of the fingers involved on the right hand were furrowed thinned towards the base while the left index finger nail showed no involvement. There was no pain or tenderness on pressure and no adenopathy around the elbows or axillae.

About five cultures were made from the finger lesions traumatizing the membranes and two cultures from the nose.

The origin of the urticaria probably was toxic as no history of antitoxin injections was elicited. An injection of five minims of adrenalin immediately relieved it. The next day the temperature was down to 100.5°F and the urticaria was much improved.

The Board of Health laboratory reported positive cultures from some of the finger smears and from the nose. A virulence test of the culture from the fingers was started and reported later as a virulent organism.

A photograph of the fingers was taken, but unfortunately was unsuccessful.

After consultation with Dr. Wilfred C. Hulse, a pediatrician, it was decided to give antitoxin 5000 units, to the child and to use potassium permanganate soaks (1:5000), $\frac{1}{2}$ hour 3 times daily to the fingers.

Under this regime the bloody nasal discharge stopped the next day, the fingers made remarkable gains, the temperature became normal two days after the antitoxin and thereafter there was an uneventful recovery.

It was later found that the pediatric ward of the hospital was quarantined, and showed four diphtheria carriers.

133 E 58 St

References

- 1 Warren and Sutton *JAMA* 84:1983, 1925
- 2 Knowles and Frescoln *Ibid* 63:398, 1914
- 3 Jadassohn *Handbuch der Haut und Geschlechtskrankheiten*

pressures) should be encouraged to remove to or visit altitudes of five thousand feet or more

Now what can be done in realistic prevention by demolishing, excluding, or correcting known positive causes? First comes syphilis, the most important single cause. Therefore the rapidly-developing campaign against syphilis should have preventive implications in proportion to its other attainments. Active syphilitics in any stage may produce syphilitic children, although many are born and grow to maturity with apparent good health and negative Wassermanns. Cured or long-lasting arrested cases may not only produce healthy offspring but the numerous miscarriages credited to the disease are abolished in some series, largely reduced in others. We are proud to note that the present campaign to control syphilis was born in New York State when Surgeon-General Parran was our Health Commissioner and that our Society Council co-operated with him actively through the efficient Public Health Committee. Continued cooperation in State and Nation is our duty.

Some States require negative Wassermanns or Kahn tests from each candidate for marriage. If scientifically done this is a laudable effort in prevention and should be encouraged. It goes without saying that active syphilitics should not marry. What other measure can be more effective? We understand that such a law will be proposed in the next State Legislature. Its provisions should be carefully studied by all licensed physicians.

Pregnant women who have had repeated miscarriages or whose husbands have a history of syphilis should receive active antisiphilitic treatment throughout gestation whether Wassermann tests are positive or negative. All children of such offspring should be followed up observantly. Thus much cardiovascular disease may be prevented by destroying or reducing syphilis.

Diabetes produces much cardiovascular disease primarily through arterial changes. Hence the prevention and early and continued control of diabetes by the modern balanced diet and insulin is an important preventive of the secondary conditions.

Most of the balance of cardiovascular patients can be found in one of two groups or in both, namely (1) those who overwork one or more structures or functions and

(2) those who poison themselves from without or within. Besides the stress and strain of overworking physically or mentally, denying themselves the physiological rest required by any normal human (and rest requirements vary), these patients are apt to overwork everything they have or use physiologically. They may be overeaters. Overworking the digestive tract and functions is a notorious cause of cardiovascular disease. The mills of the Gods grind slowly but

" (you know the rest of it). Overworking the liver is a companion error. If overworking is by shovelling in the starches and sugars or the intake of excess fats, the liver functions, digestive, metabolic, and storage are overtaxed. Cholesterol, urea, and other things spill over into the circulation intolerably and this does vicious things to heart and arteries. Likewise the kidneys can be overworked by errors in volume of intake and in the chemistry of food and drink. You see the two groups (overworkers and poisoners) merge in spots. The renal cases of cardiovascular disease are always subjects of debate. The only conclusions available are that sometimes nephritis is the primary element in cardiovascular disease whereas in others the heart and arteries yield first to stress or toxemia. Excessive intake of nitrogenous food causes some primary renal irritation, also large consumption of chlorides. To prevent nephritis by reducing these excesses most patients should begin about thirty or forty years before their physician advises these reductions as *therapeutic measures*. This may also be wise in the cases where the cardiovascular disease is primary. We shall be more competent in preventing both types when we understand more about their origins and cognations.

Besides overworking the mind and functions generally, overworking of the voluntary muscles brings increased peripheral resistance, elevates blood pressure, and crowds the heart muscle, hence hypertrophy and defective nerve and nodal impulses. We should warn our patients regarding excessive muscular work, especially the extravagant young athletes who do not usually enjoy longevity. This statement needs some qualification which however carries us still deeper into preventive work. Some research has been done in the recent past on crew men in college, which seems to indicate that this extreme form of exercise is

daughters of fibrotic fathers) Where there are mostly or all sons of sclerotic fathers, sound cardiovascular systems may be the endowment of the offspring Or when mostly daughters of sclerotic mothers The difficulty is that statistical evidence indicates that balance of sexual power also in some measure determines sex Thus if father is sclerotic and more highly endowed with sexual power more daughters arrive who are most likely to suffer and die early Likewise mother and sons Moreover young couples at the ages in which procreation is richest are not thinking in terms of ultimate consequences Nevertheless we have all seen the sufferings and tragedies of young men and women perishing from an acute or sub-acute cardiovascular disease and have not only pitied *them* but also their offspring Contrarywise *some short lives* prove extremely valuable in varying ways What to recommend is open to careful consideration and broad discussion It deserves careful thought in its physiological, social racial and spiritual aspects Nature is notoriously so careful to provide lavishly for procreation that wisdom and conscience should come into play whenever any suggestion is made to interfere with her plans for repopulation Physiologic and social consideration are secondary—and crass emotionalism is barred

The outstanding negative or subtractive cause of cardiovascular disease is anoxemia Recent researches have led to the conclusion that subnormal supplies of oxygen extending continuously or in installments over long periods are effective causes of cardiovascular disease These subnormal supplies of oxygen are not fixed on supply or demand sides The supply may be normal at times and subnormal at others according to the type and degree of interference The demand will vary with the activities of the combined functions of being During periods of comparative inactivity a normal supply of oxygen may be received through obstructed nasal, pharyngeal, laryngeal or bronchial viaducts With moderate or extreme functional activity oxygenation may become decidedly subnormal Here preventive measures aiming to eliminate or reduce such obstructions are always in order Here the question is do we often look for such causes of faulty oxidation and therefore of cardiovascular disease? Chronic irritation of nasal

mucous membranes from daily smoking may do this We often see a smoker, cigarette or cigar in mouth, busy with both hands, trying to overcome dyspnea by dodging smoke and shifting cigarette or cigar, and yet he can hold on some minutes before he gives up and tries for a compensatory intake of oxygen

Habitual physical inactivity may reduce lung capacity in time and cause chronic subnormal oxygenation Thus if a person's occupation does not demand moderate activity a certain amount of daily or twice daily exercises are indicated The habit of taking full breaths and exhaling to a full degree in fresh open air, is preventive medicine especially for sedentaries For these also lessons and practice in singing are good preventive measures

Is there any worse ordinary combination making for anoxemia than sitting in the low seat of a closed motor car, consumed with anxiety over a critical case, while you hold your breath driving through crazy traffic, smoking a cigar, cigarette, or pipe? Elevate the seat, open the windows or drive an open car, think only of driving, avoid all traffic possible, and omit smoking Thus you are practicing preventive medicine

Without further comment we can assume that inadequate ventilation of homes, schools, factories, offices, and public halls and audience rooms causes varying degrees of oxygen starvation as well as carbon dioxide poisoning! Remember the "Black Hole of Calcutta" story!

Specifically the term anoxemia has been used as a synonym for mountain (or altitude) sickness This involves consideration of low atmospheric pressures and the physiologic results thereof The preventive and curative treatments are known to you all "Aviators sickness" also depends on low air pressure Preventive medicine here should include physical examination of those proposing to remove to altitudes two thousand feet or more above their present habitat (Extreme conservatism is advisable because we have known of residents at sea-level to remove to an altitude of two thousand feet and perish all too soon from a mortal feature of an unsuspected cardio-vascular disease) Those thus physically examined should be thoughtfully advised. Only those who possess normal hearts, negative electrocardiograms, and at least moderate blood-pressure (including moderate pulse

chewing finecut or plug? Whatever the manner of indulgence the use of tobacco is a fascinating habit. Whatever other harm it does or does not do it is a cardiovascular enemy through oft repeated spurts of hypertension or a continuous performance thereof. To cease its use after years of indulgence demands character of unusual quality and dimensions. Yet most tobacco users should quit or reduce it largely after fifty. Therefore to surely prevent its cardiovascular consequences, persons should avoid beginning its use.

The average cup of moderately strong coffee contains approximately three grains of caffeine. We should instruct our patients to take coffee in proportion to its caffeine content, their need of its stimulating action, and their ability to use it. The person who discharges much physical energy can profit largely by its steady moderate use. The sedentary bookkeeper, clerk, typist, student, or scholar can safely tolerate small doses only. Temporarily he may do wonders for a few hours after stimulation but it is materially expensive. Coffee is a cardiovascular poison. Its use should be regulated by reason or avoided.

Tea contains some caffeine but is comparatively nontoxic to the cardiovascular system when imbibed as a mild infusion. Strong and boiled over varying periods, it is definitely harmful. The tea-pot cooking all day on the stove produces other vicious poisons and can produce various chemical changes in the human body including some that encourage cardiovascular lesions.

Some credible authorities state that tea and coffee topers harm themselves as definitely as the hilarious alcoholic debauchee. Reasonable restraint or complete abstinence will in a degree be preventive medicine in circulatory disease.

Internal poisons in substantial array may justly be credited with causing or assisting to cause cardiovascular disease. First and foremost, gastrointestinal fermentation, putrefaction, with spastic or atonic types of constipation result from insufficient mastication, hasty eating, lack of exercise and inattention to colon. Two or three decades of daily autointoxication can do as much harm as alcohol to the aforesaid engine and tubes not to mention other structures. In fact, many constipated sugar eaters manufacture their own alcohol. As physicians we should see that our patients

are provided with teeth to masticate with, that they understand what chewing does for them, that their diet is adjusted to their gastrointestinal and other needs, and that they know all of the meanings of the word "constipation." Evacuations must not only be daily but also adequate, of proper consistency and color, and free from undigested food or mucus. We have unpacked many a colon full of hard dry feces in patients who thought they were not constipated because of "some evacuation" each day, while enemata have relieved many others of unbelievable numbers of hard marbles, indicating long storage and petrification. Preventive measures here again indict the need of broad educational endeavors and much personal work among our patients.

Focal infections unquestionably play a leading part in promoting cardiovascular disease. This is a scintillating reason for periodic health examinations. Insidious low-grade chronic septic poisoning effectively produces hypertension and cardiovascular disease. At every periodic health examination, we should look for infections of sinuses, tonsils, teeth, gums, bronchi, gall-bladder, skin, appendix, the prostate in males, and reproductive pelvic viscera in females. Pyelitis and cystitis should be excluded by at least microscopic search of urinary sediment. If there is any degree of chronic osteoarthritis our search for focal infection should be intensive, for associated cardiovascular disease and arthritis may arise from common septic source. A former classmate of Rosenau once accompanied us to the experimental farm-laboratory in Rochester. Introductions over, Rosenau turned to our companion and asked "What are you here for?" The reply was "Hypertension—180 to 200." "Well, where's your focus?" said Rosenau. This question should always jump into the limelight of our minds whenever hypertension is found. Chronic sepsis is not always discernible or present. However it may be associated with one or several other causes. This brings us back to Turner's declaration that everything has a cause and the cause of anything is everything."

We know intimately a physician who has chronic sinusitis, two diseased tonsils, some dead teeth, a generalized osteoarthritis, and cardiovascular disease. Useful men and women should not be allowed to keep such teeth, tonsils or sinuses or arthritides and

followed by hypertensivity of the heart only when some other cardiac damage of unsuspected nature exists, usually chronic infection. If this be true in rowing, it is doubtless true in all other overexercise. All the more reason, then, that those infective states that can in any way damage a heart muscle should be prevented by appropriate means in childhood.

Many overworkers are also poison cases whose metabolic rates are high due to overactive thyroid glands. The emotional drive, mental activity, and the constant struggle to tug and spurt wears the cardiovascular system. Failure in restoring these patients by operation is often due to the persistent daily damage of thyrotoxicosis over a long neglected or untreated period. The engine and tubes have lost their strength and resiliency. Cardiovascular disease is permanently established. Early removal of most three and four plus toxic thyroids is therefore a measure tending to prevent it.

Now we are over in the "poison" column of causes. The leading intake poisons are lead, alcohol, tobacco, coffee, and tea. Exactly how they operate harmfully is far from settled. Sensitiveness to the action of each varies among different persons and in the same person at different times of life and different circumstances. We see more acute lead poisoning in painters, glaziers, and plumbers who are young. Workers in lead however mostly develop cardiovascular disease in the fifth or sixth decade and are long time chronic cases. Lead commonly clings under nails or in the folds of the hand covering and is swallowed in tiny fragments while eating. Prevention can be almost assured if nails are kept short, and hands are scrubbed with stiff brush, soap and water, then the nails cleaned with a cleaner, then hand re-scrubbed, and well dried. As lead can readily be absorbed by lungs masks are advisable for lead workers in factories. Frequent general baths contribute largely. Of course we are thinking of the chronic occupational or habitual absorbers. Chronic lead poisoning may occur through drinking water settled for some hours in lead pipes or for a longer time in lead-lined cisterns. Diminishing use of lead water pipes is therefore preventive—and cisterns should be lined with something less soluble or nontoxic. Cider and other alcohols with acid content rapidly dissolve lead in contact. Lead in cosmetics and hair-dyes

may be absorbed by skin. False-teeth and certain types of thread contain lead ready for intake. The preventive measures are obvious. Most of the acute cases are accidental and have little to do with our subject. However the prevention of lead poisoning is of itself an interesting theme. Its relation to cardiovascular disease is important, however dark and dull it may appear.

More sparkling is the subject of alcohol. While there is no question concerning the resultant hypertension and the malicious overaction of heart muscle and degenerative changes in viscera attending its daily consumption over a period of years, there are many elderly life-time drinkers who seem to be preserved in it, especially if they have avoided overeating. Moreover people seem to develop cardiovascular crises more rapidly when they begin its consumption in the fourth or fifth decade. We recently sat next to an eminent cardiologist at a terrace-table outside a golf-club. "Should that jolly fellow with a florid face drink so much gin?" we asked. "No," said the doctor, "he had a coronary thrombosis three years ago. He should stick to Scotch in small doses largely diluted with an alkaline water. That would dilate his arteries and do him good." This seems to be prevalent opinion with cardiologists. The favor with which the old-fashioned nightcap is regarded by excellent physicians as fatigue reliever and therefore hypnotic must also be respected. (Lauder Brunton). Nevertheless the habitual use of toxic doses of concentrated alcohol daily over years produces cardiovascular disease. It should be interdicted as a habit.

Tobacco contains nicotine, a most virulent poison. It also contains several other poisons in minute doses. In general its deleterious actions are recognized and accepted. The majority of men perishing from coronary disease have at some time been habitual users for years. In the 'gay nineties,' "tobacco heart" was a clinical entity of importance. The newer clinical pathology has demonstrated that most influences are arterial, including coronaries. A personal communication from a New York Hospital clinician stated that observations demonstrated a rise of from six to ten points in blood-pressure after four puffs of an ordinary cigarette. The temperature changes in extremities are well-known. What then about the big black cigar, the fragrant pipe, and

to their own disadvantage. If we could fool them we would help them. But in Dora a cold compress over one eye had an immediate and permanent effect. She was sure that the right upper lid was shaking badly. She "felt it only" and did not see it in the mirror. Nor could the examiner notice any kind of a tremor, or nystagmus, or anything abnormal in the eyes or in the fundi. The vision was also adequate. Nothing abnormal as far as general physical health. But the mental make-up was quite irregular. It had a kink somewhere, but no classification or diagnosis was possible. As some psychiatrists say, a psychopathic personality without psychosis. I learned from her family that she was always a "pest" and everybody was afraid of her. I was prepared to begin a series of talks with her and to go to the bottom of the problem. The hour, however, was late and I was tired. So I told her about the cold application, which would have had a meaning in some real inflammation. I must have impressed her more than I expected. She went home and had the compress on for one half hour, and, she claimed—and the entire family proclaimed—that the "shaking" which had lasted "continuously for weeks," was gone never to come back, and she stopped complaining.

"It was miraculous," she told me.

But when I proposed the water treatment, she balked at first. "What with? Water only? There is nothing to water!"

To which I retorted "Nothing, eh? Have you ever made a drop of water?"

Water and watery remedies are certainly miraculous in the right person in the right time.

Unnecessary or harmful drugs, which may suggest a mental cure, may, at the same time, have the disadvantage of injuring the body physically. Did not our old German teacher warn us to avoid prescribing indiscriminately and only because a medicine is stylish? He made fun of those in the profession whom he called medical parrots.

*"Wenn man nicht weiss wie, was warum,
Gibt man Kalb Jodatum"*

And some time in the last century, when quinine was strongly entrenched as an all-around medicine, a famous physician seeing that it did not work, dared to substitute arsenic for it. But his colleagues were tearing their beards and called him a criminal. At a scientific meeting he told them that—as Raphael of old said about his art that all paint must be mixed with brains—so in our art all medicines were mixed with suggestion and when an accusing finger was pointed at him "What will you say to God when summoned before Him?" he replied "I will touch his shoulder friendly and tell him, Old Pal, you don't know anything about this."

611 W 158 St

NEW MEDICAL BUILDING AT SYRACUSE

Dr Ray Lyman Wilbur, president of Stanford University and former Secretary of the Interior, will be the principal speaker when Syracuse University dedicates its new \$825,000 home of the College of Medicine on Nov 22.

Other speakers will be Dr Henry A. Christian, Hersey professor of theory and practice of physic in College of Medicine of Harvard University and Dr Edward S. Godrev, Jr, commissioner of the New York State Department of Health. Dr Wilbur

is chairman of Council on Medical Education for the American Medical Association.

The new five-story medical building is the fourth unit to be completed in the plan initiated in 1925 to construct a hospital and educational center adjoining the Syracuse University campus. Previously completed units are the Syracuse Memorial Hospital, the State Psychopathic Hospital and the City of Syracuse's Communicable Disease Hospital, all of which are affiliated with the College of Medicine.

The next American Board of Obstetrics and Gynecology examination (written and review of case histories) for Group B candidates will be held in various cities of the United States and Canada on February 5, 1938. Application for admission to these examinations must be filed on an official application form in the office of the Secretary at least sixty days prior to these dates.

The general oral, clinical, and pathological examinations for all candidates (Groups

A and B) will be conducted by the entire Board meeting in San Francisco, Calif., on June 13 and 14, 1938 immediately prior to the meeting of the American Medical Association.

Application for admission to Group A examinations must be on file in the Secretary's Office before April 1, 1938.

For further information and application blanks address Dr Paul Titus, Secretary, 1015 Highland Bldg Pittsburgh, (6), Pa.

they should be discovered by us at periodic health examinations. Just so with the other causes. *This is our extensive obligation.* If we start now and work diligently for a few decades coronary deaths and cardiovascular disabilities may be reduced as rapidly as has the mortality and morbidity from tuberculosis since 1900.

Considering the notorious incidence among physicians we might well begin by preventing these vicious killers in the medi-

cal students and hospital interns of today and in the young practitioners by periodic examinations. Let this be a part of their training.

If we do this for each other and thus reduce the incidence among ourselves, publication of records may interest the people at large. Thus through periodic health examinations and abiding by their indicated care we may prevent much of the now increasing cardiovascular disease.

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., D.R.P.H., New York City

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Some Easier Cases

CRESCENDO

A man was refused a second insurance because his *blood pressure* was 160, slightly higher than normal. That made him worry. He lost his appetite and sleep and much weight. He was in bad humor and made his family unhappy. After a while his underweight suggested "cancer" to him. He read up on health, counted his pulse, palpated his heart, looked into the mirror at his eyes and tongue. Avoided friends and canceled all invitations. Neglected his business and was financially all but ruined.

He went so far as to pay attention to the smallest detail. "The doctor in Chicago said I was improved, but what is the use? My blood pressure is still five points above."

I had to explain how ridiculous this statement was and also how much better it would be for him not to know about himself. Then he caught me contradicting myself. Had I not done my share in popularizing health and had I not taught the necessity of knowing one's body? I was placed in the defensive. The *gnōthi seauton* of the Greeks, the Latin *nosce te ipsum* is meant for normal people and should not be taken literally. Also it should be understood in a detached way. To know oneself too much can only bring harm—and ignorance. It is like trying to see the elephant through a magnifying glass and the mountain very close and without a perspective.

Psychoneurosis, especially when made worse by mental depression, is like the increasing power of slander, the best, the most wonderful description of which is in Beaumarchais' "*La calomnie, monsieur?*"

An eloquent explanation of the point of

view of the insurance company which is buying him as goods and cannot be sure how he might endanger his life in the future, opened his eyes. That was compared with the viewpoint of the private doctor who knows what life he leads and for whom this slightly increased blood pressure, in the absence of other physical defects, plays but a scant role. Patient was gradually talked out of all his disease entrenchments and convinced that he was practically healthy.

MISLEADING LITERATURE

A young man, recently married, was depressed and mentally upset because he thought himself impotent. He had read a big book on sex relations and what impressed him more was the explanation on the "position" at the intercourse. He was in need of some enlightenment, but there was too much of the good, too many and unnecessary details were given. While trying to imitate some of the descriptions, his partner objected. Naturally, any remark—and the more prosaic or trivial the worse—during the critical moment has a deleterious effect. He was told that such *temporary lack of adjustment* did not mean impotence and that it was best to *follow no author*, but his instinct—and hers, *not to be excessive, not to suggest impotence to himself* and not to let his wife *humiliate* him.

He was easily cured, because he had not been ill.

PLACEBO

Placebos do not always work. Patients, especially psychoneurotics, are too smart—

adolescence to obsolescence" without realization of its rich potentialities? To Dr Van Etten, as to many other thoughtful practitioners, a partial answer lies in more vigorous exercise of their social influence and political powers by medical men

Right and Wrong Ways

Because of her official status in public health work, Miss Josephine Roche's recent address before the American Public Health Association has naturally been searched for hints of Administration policy. The result is highly disquieting to the medical profession. While Miss Roche does not actually say state medicine, all the implications she makes point that way. Her demand for concerted public action under the leadership of the United States Public Health Service ignores the enormous contribution made to American health by the private practitioner of medicine and his unique fitness to help direct medical policy.

Miss Roche's attitude is typical of what the profession—and the public—have to fear in lay political control of medicine. Her whole medical philosophy, like that of a majority of social workers and bureaucratic administrators, is based on extensive statistical computations which do not truly reflect individual needs. The nation's medical requirements cannot be expressed in a statistical average or supplied by a standardized formula.

In the last analysis, excluding mass measures like sanitation and the control of contagious disease, medical care is essentially a matter of individual service by individual physicians. Experienced health officers and private practitioners agree on this. Aware of the stultifying effects of bureaucratic control on medical initiative and judgment, they hold that the best safeguard for national health lies in the private practice of medicine carried on in close and active cooperation with local public health

In view of the rest of her speech, Miss Roche's request for a special committee of the American Public Health Association "to co-operate with the United States Public Health Service" in the expansion of public health work might easily be construed as an invitation in the direction of state medicine. The Association refused this invitation without repudiating any of its benevolent aims by appointing a committee "to cooperate with the United States Public Health Service, the American Medical Association, the American Dental Association and other appropriate bodies." The Administration would do well to follow this example.

Treating a Cold

The season of the year is at hand when the common cold will once again begin to play its role in the production of upper respiratory infections. In itself, the cold and the symptoms it presents, are not the products of the ordinary pathogenic organisms, since these are not recoverable in cultures taken during the first days of the disease.¹ Rather the latter function as secondary invaders which produce a subsequent infection of the mucosal lining of the nasal chambers. It is this secondary infection which presents the danger of the common cold in the incidence of pulmonary, otic and nasal accessory sinus suppurations. Consequently the treatment of coryza should be directed toward either preventing or limiting the duration of the bacterial infection.

All of the treatment at present in use is more or less empiric in nature. Diehl,² however, has found that a combination of codein sulphate and papaverine hydrochloride, $\frac{1}{4}$ grain each, when administered for ten doses over a two day period immediately after the onset of the cold resulted in definite relief in ap-

¹ Dochez & R. Medicine 12 245 1933
² Diehl H. S. J. A. M. A. 101 2042 1933

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EDITORIALS

The Doctor Asks "Where?"

In an outspoken address before the Bronx County Medical Society, Dr Nathan B Van Etten graphically described the modern doctor's dilemma. Criticized by social agencies which hope to usurp his functions, bound by ethical laws which place the public welfare above his profit, threatened by political domination, how is the physician to continue his traditional service without sacrifice of his professional independence and security?

Obviously the fast changing conditions of modern life require correspondingly rapid adjustments on the physician's part. The emphasis in modern medicine has shifted to a marked degree from cure to prevention. The forward looking practitioner must seek new fields to replace those which medical progress has removed and will continue to cut from his domain.

Encouraged, perhaps, by the worldwide growth of totalitarian trends in government, politicians in this country have begun to turn covetous eyes upon the practice of medicine. So-called social security furnishes an attractive cloak for a multitude of sins. Not the least of these is encouragement of the delusion that compulsory sickness insurance would

furnish better medical service for all the people at lower cost.

As Dr Van Etten states, "The practice of medicine is concerned with three classes of people: the indigent, the large middle class, and a small group of people who may be called independently well-to-do. *All these people are better cared for in the United States than anywhere else.* Health insurance schemes abroad do not take care of the indigent, have not reduced morbidity but have reduced physicians to a very low place in the social scale."

This is fact, not unsupported theory. Indisputable proof is found in international vital statistics, which place American health services on the basis of morbidity and mortality rates, far ahead of those in nations relying on obligatory insurance for medical care. If further substantiation is wanted, it can be found in the diminution of individual research in insured countries as compared to the vigor and productivity of private scientific investigation in the United States.

Nevertheless, American medicine is harassed by politicians and lay sociologists who see in compulsory sickness insurance an opportunity to control a vast and enormously profitable bureaucracy. What can physicians do to prevent the transition of their profession "from

CURRENT COMMENT

"TO MY MIND IT WOULD BE highly desirable, and is more often possible than we are in the habit of believing, for a youngster who knows, as many of them do during his high school years that he proposes to practice medicine to begin at that time to study the question of what type of practice he will undertake. By coming to this decision by the time he enters college he will be able to obtain some acquaintances with philosophy and psychology, economics and sociology. These seem to me of real importance. His time in the medical school will probably necessarily be spent much as that of his brethren but his internship should be of longer duration than field and should be of longer duration than has generally been thought requisite equipment for general practice. It has been the habit in the past to allow students to go out into general practice with the confidence that they can fill the bill after one year of ordinary internship. Yet it seems to me implicit that the general practitioner must be a more broadly educated person than the specialist, and I do not believe that he can fill the berth which will be required of him in the future unless he has two or three years in contact with masters after his formal medical course is finished."

"—Hugh Cabot writing of Hurdles for Young Doctors" in the autumn issue of *The American Scholar*

profession"—Harry Roberts writes anent euthanasia in *The Living Age*

"MERCIFUL KILLING, NO MATTER HOW humanely applied, would demoralize society. Like war and capital punishment, it would revive the dormant sadism and destroy the sacredness of human life."—A. A. Brill's opinion in regard to euthanasia, as quoted in *The Digest* of October 23

"WE ARE PASSING THROUGH a phase of superficial liberalism. The term liberalism is applied in all departments of human activity and in all the disciplines of knowledge. It has a special significance as applied to political action and political theory. In this field we often use the term as applied to individual experience. Most men combine both progressive and conservative senses. Liberalism represents a personal attitude so combining these senses that the individual is constantly prepared for evolutionary change. "But liberalism also refers to a political tradition. This tradition rests upon certain principles. Two are of cardinal importance. Human advancement both spiritually and materially, depends upon the freedom and liberty of the individual, and however desirable any economic and social change, it should not be sought by means that infringe upon personal liberty."

"DOCTORS ON WHOM WOULD FALL most of the responsibility for administering the *coup de grace*, should euthanasia become general and legal, are perhaps the least enthusiastic advocates, not from lack of sympathy but because they know better than does the public the sinister possibilities attendant on the giving of increased licenses to less reputable members of their

"The outposts of liberalism reach into all frontiers of social and economic ideas. They strike camp with each new sunrise. But its citadel holds a treasure dear! Bought, the blessings of civil liberty. The lines of proposed advance should not be so drawn as to weaken its defense."—James L. Nesbit in an excellent letter to *The New York Times* of October 24

COMMITTEE ON WORKMEN'S COMPENSATION

Physicians who have removed their offices since obtaining a registration card from the Industrial Commissioner, who engage in Workmen's Compensation practice, are requested to send the change of address to the office of the Industrial Commissioners, 80

Centre Street, New York City, and to the County Society which qualified them. This matter is of great importance and should receive the immediate attention of physicians involved.

DAVID T. KALISKI, Director

The wives of the doctors of the Wyckoff Heights Hospital in Brooklyn have organized the "Guild of Wyckoff Heights

Hospital," for the purpose of furnishing a social service worker to follow up cases after they leave the hospital.

proximately three-quarters of all cases treated. A decrease in the nasal discharge and congestion was evident early in the treatment, and the incapacity of the sufferers was reduced to a minimum.

Whether this combination of opium derivatives acts synergistically on the vasomotor system or on the peripheral vessels is not definite. However, their inhibiting action in the prevention of the secondary, infective stage of the cold when they are employed early in the course of the disease, is important to bear in mind in our attempt to avoid the severe complications which follow in the train of acute coryza.

Myocarditis and Vitamin B

More and more, as our knowledge of the role of vitamins continues to increase does our conception of clinical medicine become clarified. Hitherto obscure conditions, for which we had no rational therapy, are now amenable to definite regimes which result in cures or at least amelioration of the existing disease.

The role of the vitamin B complex in relation to beriberi, with its fully developed clinical picture of edema, multiple neuritis, and cardiac weakness has been a recognized etiological factor for many years. Recently, however, certain neurological and cardiac lesions for which formerly no satisfactory explanation as to cause could be found, are now being recognized as partial or subclinical forms of beriberi. Alcoholic polyneuritis, certain forms of acute psychosis and of anasarca are among these.¹

Weiss and Wilkins² have studied 125 cases of so-called myocarditis which presented gallop rhythm, tachycardia or bradycardia, dyspnea, pulmonary congestion, and cardiac dilatation. They present evidence that the pathological

findings in this series are identical with the myocardial degeneration found in beriberi. Such a lesion, they feel can arise in cases of malnutrition and in vitamin B deficiency such as occurs in thyrotoxicosis or prolonged febrile states. On the clinical side of this problem, Jones and Sure³ administered diets rich in vitamin B, to cardiac patients and found that the management of these cases was easier and the results obtained were far better than any other in their experience.

The fact that cardiac disease ranks as one of the foremost in the cause of death makes these contributions among others welcome in pointing the way for a new therapeutic attack. Heart disease of known etiology must be treated by measures now in general use, but cases of myocarditis wherein the cause is not evident may be found by keen clinical investigation to be due to avitaminosis and to respond favorably to vitamin B therapy.

"Should He Have Died of Heart Disease?"

This title prefaced the Presidential address to the Third District Branch Meeting at Kingston, September 30.

Dr. Goodrich, whom we all know as an eminent surgeon, presented a notable medical paper upon the causes and preventive measures to lessen the incidence of heart disease. The thesis continues his program of stressing preventive medicine.

It is not our purpose to editorialize upon the address but we can hardly avoid commenting on its timeliness, its simple stress upon avoidable factors in the production of heart lesions, and draw attention to its appearance elsewhere in this issue. All of us will benefit by reading this presidential address on page 1939.

¹ Wexberg, E. *NO Med and Surg J.*, 90 65, 1937

² Weiss and Wilkins *Ann Int Med.*, 11 104, 1937

³ Jones and Sure *Jour Lab and Clin Med.*, 22 991, 1937

dent Mrs Francis Irving presiding. Twenty members of the board were present, having been entertained at dinner and bridge by Mrs John L Bauer on the evening before the meeting.

The members present were Mrs Francis Irving, Mrs Daniel Swan, Mrs Frederic Elliott, Mrs Luther Kice, Mrs Henry Hirsch, Mrs Edgar Neptune, Mrs Edwin A. Griffin, Mrs Louis A VanKleeck, Mrs John J Buettner, Mrs Horace M Whiteley, Mrs James M Dobbins, Mrs Harry P Mencken, Mrs John W Mahoney, Mrs Albert W Bell, Mrs Walden Retan, Mrs John L Bauer, Mrs J Emerson Noll, Mrs William Barnhardt, Mrs Carlton M Potter, and Mrs Milton B Bergmann.

At the meeting, reports of activities were presented from various sections of the state. Outstanding during the past summer were the achievements of the Onondaga Auxiliary which sponsored a Maternal Welfare Campaign and of the Suffolk County Auxiliary, equipping the infirmary donated by the Suffolk County Medical Society to the Boy Scouts camp at Bating Hollow. The following resolutions presented by Mrs Frederic E Elliott, Chairman of the Program Committee, were adopted:

WHEREAS, It is the purpose of the Woman's Auxiliary to the Medical Society of the State of New York to bring about understanding between the profession and the public, and

WHEREAS, It is the purpose of the Committee on Program to assist the County Auxiliaries in making their programs, and

WHEREAS, A stronger organization in the department is necessary to obtain best results

Be it Resolved

First, That each County Auxiliary have an active Program Chairman

Second, That each County Chairman of Program familiarize herself with the Presidential address of Dr Charles H Goodrich "The Partnership Idea in Public Health" (N Y STATE JOURNAL OF MEDICINE, August 1, 1937, page 1397)

Third, That each County Chairman of Program secure from her County Advisory Board definite instruction as to how her County Auxiliary may serve in bringing about Dr Goodrich's idea of Preventive Medicine

Fourth, That each County Chairman study the Woman's Auxiliary Handbook, that she represent on her program every function of the Auxiliary—Social, Philanthropic, Legislative, Educational, and Public Relations"

Mrs Bauer entertained her guests at a luncheon at the Golden Eagle in Bayport, followed by a drive which included a tour of Cathedral Pines and other parts of Long Island.

In the evening the guests assembled at dinner dressed for a party as of the "Gay Nineties"

Since that meeting several of the county auxiliaries have been quite active.

CAYUGA COUNTY The Auxiliary met on October 21 at the Nurses Home of the Auburn City Hospital. Dr W E Weld, President of Weld College was the main speaker, his topic being, 'India and the Life of Gandhi'.

JEFFERSON COUNTY An organization meeting was held in Watertown on October 19. The President, Mrs Francis R Irving, was present and helped to work out plans for further meetings.

KINGS COUNTY A card party was held to raise money to buy books to be presented to the library of the Kings County Academy of Medicine.

Layettes were presented to this Auxiliary, which in turn will be given to any person or society that the board may designate.

Mrs Edwin A Griffin, President, writes:

This Auxiliary in age is hardly out of the nursery stage, but many of our members have long years of experience as the humble wife of the physician to her credit—that unseen person who hears all the ills of the poor old world—who answers the phone day or night and tries to comfort the distracted patient on the other end of the wire—is ever alert at the side of her husband to give to the public the best she and the good Doctor have to offer. Surely no one is better fitted to be an aid to the medical profession than the physician's wife.

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

Officers (1937 to 1938)

President, MRS FRANCIS R IRVING, 119 Wendell Terrace, Syracuse

President-Elect, MRS DANIEL J SWAN, 141-54 Northern Blvd Flushing

First Vice-President, MRS FREDERIC E ELLIOTT, 122-76th St, Brooklyn

Second Vice-President, MRS LUTHER H KICE, 95 Brook St, Garden City

Recording Secretary, MRS HENRY L HIRSCH, 52 Cumberland St, Rockville Centre

Corresponding Secretary, MRS EDGAR M NEPTUNE, 243 Shotwell Park, Syracuse

Treasurer, MRS CARLTON M POTTER, 425 Waverly Avenue, Syracuse

Board of Directors

One Year MRS HARRY S BULL 11 William Street, Auburn and MRS I WINTHROP PENNOCK, 215 Scarborough Drive, Syracuse

Two Years MRS CHARLES H GOODRICH, 280 Park Place, Brooklyn and MRS ALBERT M BELL, Sea Cliff

Three Years MRS JOHN L BAUER, 984 Bushwick Parkway, Brooklyn and MRS JAMES M DOBBINS, 42-04 Ditmars Blvd, Long Island City

Committee Chairmen

Archives MRS SEDGWICK AUSTIN, 86 Genesee Street, Auburn

Convention MRS EDWIN A GRIFFIN, 165 Hancock Street, Brooklyn

Finance MRS LOUIS A VANKLEECK, 2930 Northern Blvd, Manhasset

Hygiene MRS CARL BOETTIGER, 22 De-Koven Street, Forest Hills

Legislation MRS LUTHER H KICE, 95 Brook Street, Garden City

Organization MRS JOHN J BUETTNER, 106 Strathmore Drive, Syracuse

Press and Publicity MRS MILTON B BERGMANN, 959 Bushwick Parkway, Brooklyn

Printing and Supplies MRS HORACE M WHITELEY, N Main Street, Jordan

Program MRS FREDERIC E ELLIOTT, 122-76 Street, Brooklyn

Public Relations MRS S W S TOMS, 120 S Broadway, Nyack

Parliamentarian MRS JOHN W MAHONEY, 33-44 Bell Blvd Bayside

Historian MRS HARRY P MENCKEN, 35-40 165 Street, Flushing

Advisory Council from the Medical Society of the State of New York

Dr John L Bauer, *Chairman*, Brooklyn, Dr William H Ross, Brentwood, Dr Herman W Galster, Scotia, Dr William A Groat, Syracuse and Dr Daniel Swan Flushing

Mrs John L Bauer, former President, writes "It is very satisfactory to learn that the Woman's Auxiliary to the Medical Society of the State of New York has been granted space in the NEW YORK STATE JOURNAL OF MEDICINE, and we are duly grateful to those who have made this possible. It is the fulfillment of a desire and we feel confident, will prove worth while, not only to the Auxiliary, but also to the State Medical Society.

"From the earliest date, the doctor's wife quiet, patient and willing to help, has stood at his elbow, almost unnoticed. Then came the time when she gently made her presence known—she was eager to help him. A few years ago, she nudged his elbow, informing him that she was ready to help him. He accepted the challenge, and so the Woman's Auxiliary to the Medical profession came into life, for in 1917 the Woman's Auxiliary to the Dallas County Medical Society was formed, and in 1922 in St Louis the Woman's Auxiliary to the American Medical Association was launched by Mrs Samuel Clark Red of Houston, Texas.

"The Woman's Auxiliary to the Medical Society of the State of New York, organized March 1936, stands at the elbow of the State Medical Society—willing and ready to serve."

News of Activities

The executive board held a meeting on September 29 in Bayport, L I, with Presi-

The Physicians' Home, Inc.

The Annual Meeting of the Physicians' Home, Inc., was held on October 19, at which meeting it was decided to extend the services of the Physicians' Home by accepting and caring for additional guests. In order to facilitate this policy it will be necessary for the Home to make arrangements for taking care of their guests in various portions of the State of New York. The Directors are anxious to make contacts with individuals of good character—preferably the widows of doctors who, having homes to maintain, would be agreeable to take as house guests one or more of our aged physicians. The Physicians' Home, Inc., are prepared to pay such individuals a reasonable amount weekly for the maintenance of their guests. If any of the members of the Medical Society of the State of New York know such householders who are desirous of entering into such an agreement with the physicians' Home we would be very grateful to have their names for our consideration.

CHARLES GORDON HEYD, M.D.,
President

B. WALLACE HAMILTON, M.D.
Treasurer

NASSAU COUNTY A brief business session was held on October 19 at the Garden City Hotel and then the meeting adjourned to allow members and guests to visit the exhibit and demonstrations of an elaborate collection of educational material, prepared and supplied by the New York State Institute for the study of Malignant Diseases at Buffalo, the Memorial Hospital of New York City, the Tumor Service of Meadowbrook Hospital, the American Medical Association, the American Society for the Control of Cancer, and several local doctors. The speaker was Dr. Louis C. Kress, assistant director of the State Institute for the Study of Malignant Diseases.

QUEENS COUNTY On November 6, the County Auxiliary held its annual fall dinner dance at the Hotel Pennsylvania in New York City.

COMMITTEE ON LEGISLATION OF THE STATE AUXILIARY The chairman, Mrs. Henrietta Stewart Kiee of Garden City, sent in the following announcement:

Auxiliary members and doctors' wives everywhere, find themselves either interested spectators or bewildered participants in this chameleonic era of world activities.

There is a constant appeal and challenge for our intelligent thought not completely usurped by our daily routine of planning meals and tending the phone.

There is the urge to stand shoulder to shoulder and participate in events. Fifty years ago these events were not foreseen. Outside

interest would have been unnecessary and unethical.

But time marches on. Today the legislative committee of the Woman's Auxiliary to the Medical Society of the State of New York, though still a diminutive, young offspring, gives promise nevertheless of being a helpful and vigorous one.

Its steady growth, the ability to fulfill any hopes at its inception will be in direct proportion to the education, guidance, understanding, and cooperation given.

The program of this committee's activities will be suggested by the medical advisors to the Auxiliary, as well as the legislative committee of the Medical Society.

We can make no laws and we act only when requested by the legislative committee. Any apprehensions as to our conduct thereby are stilled.

Untold possibilities of this committee's accomplishments are envisioned with the endless and abundant opportunities at our command. The manner and degree of such achievement will depend upon the interest and study.

It is obvious that if we are to become useful, well-informed auxiliary members, education must be a vital factor.

As we approach this oncoming legislative year, let us be alert to such measures which affect the public health and the medical profession.

Careful consideration of such topics in our county groups, will make this legislative-educational project, a major one. Let us appreciate that this committee's interests are definitely our personal one.

Let us be prepared to stand by or assist in a manner befitting and worthy of our association with the oldest of all professions.

PNEUMONIA CONTROL PROGRAM

Some misunderstanding has occurred regarding the Pneumonia Institutes which are being sponsored by the State Department of Health and the State Medical Society, especially regarding the one to be given in New York City on November 23. These Institutes are for physicians of the State, except those residing in New York City. This exception is due to the fact that the Institutes are financed by the State Department of Health, which has no jurisdiction over the health work in New York City.

Despite the fact that the notices regarding these Institutes published in this JOURNAL and other places, indicated this fact, fifty-five applications have been received from New York City. This matter has

been discussed with the Commissioner of Health of New York City and Dr. Peter Irving of the Advisory Committee on Pneumonia Control of New York City, who have been urged to provide a similar Institute for physicians in New York City.

The Council Committee on Medical Education has been advised that such an Institute will be arranged as early as possible. Consequently all applications which this Committee has received from New York physicians will be turned over to the Commissioner of Health of New York City, who has agreed to consider them as applications for the local Institute, and will give them priority over applications to be received.

MEDICAL NEWS

Number 221

four clergymen of Buffalo and vicinity asking them to comment on the practice of vivisection brought only five replies from the physicians and three from the clergymen, Mrs Alice K Millard, president of the Erie County Anti-Vivisection society, announced on Oct 19

THE CLINICAL AFTERNOON and dinner of the Buffalo Academy of Medicine will be held on November 17, at Hotel Statler, Buffalo, in the Terrace Room at 2 30 P M. The program "The Diagnosis of Lesions of the Stomach by GastroscoPy" Rudolf Schindler, M D, Associate Professor of Medicine, School of Medicine University of Chicago "Drugs in the Treatment of Diseases of the Heart." Robert Louis Levy, M D, Professor of Clinical Medicine, College of Physicians and Surgeons Columbia University, New York City "Responsibility of the Profession" Irvin Abell, M D, President-elect of the American Medical Association, Clinical Professor of Surgery School of Medicine, University of Louisville. "Diagnosis and Management of Surgical Diseases of the Colon and Rectum," Richard Bartley Cattell, M D, The Lahey Clinic, Boston, Mass

At the dinner, the speaker will be Morris Fishbein, M D, Editor of the *Journal of the American Medical Association*, and his topic, "Social Security and the Physician"

Genesee County

DR. LEROY V GARDNER and Dr Homer L Samson spoke on "Pneumoconiosis," before the Genesee County Medical Society on October 28 at the Batavia Club

Jefferson County

THE MEDICAL SOCIETY of Jefferson county was entertained by Dr Sutherland E Simpson, superintendent of the Jefferson county sanatorium, at the society's meeting on Oct. 14, at the sanatorium. Dr Jesse R Pawling, president of the society, presided. The guest speaker was Dr William Warner Woodruff, consulting surgeon to the Trudeau sanatorium whose topic was "Surgery of the Chest"

Kings County

DURING NOVEMBER, the radio program of the Medical Society of the County of Kings is devoted to the prevention and study of tuberculosis. This program is under the joint auspices of the Medical Society of the County of Kings and Academy of Medicine of Brooklyn and the Brooklyn Tuberculosis and Health Association

THE FIRST REGULAR MEETING of the Woman's Auxiliary to the Medical Society of the County of Kings, Mrs Edwin A Griffin, president, was held on Oct 19 at the Kings County Medical Society Building. Dr Samuel Frant was the guest speaker

THE RIDGEBORO MEDICAL SOCIETY met on Oct 21 at the Kings County Lighting Company. It was addressed by Dr Howard Lillienthal on the subject, "Intro-Thoracic Suppuration." Dr Ralph Harlowe of the Long Island College Hospital discussed the paper. Dr Clifton Bogardus presided

Drs G H DAVIS and O C PERKINS finished "one-two" on Oct 5 in the annual golf tournament of the Associated Physicians of Long Island at the Queens Valley Golf Club. Dr Davis had 80, Dr Perkins 81

Monroe County

MODERN TREATMENT of pneumonia was discussed at the Monroe County Medical Society meeting on Oct 19 at the Rochester Academy of Medicine

Dr Jesse G M Bullock, clinical professor of medicine at New York University College of Medicine and visiting physician to Harlem Hospital and Willard Park Hospital, spoke on "The Management of Pneumonias"

Discussion was led by Dr Edward S Rogers of the bureau of pneumonia control of the State Department of Health. Dr. William S McCann of the University of Rochester School of Medicine, and Dr Edward G Whipple, society president

A dinner conference for chiefs of the medical staffs of Rochester hospitals was held at the University Club preceding the meeting. An all-day institute was held at Strong Memorial Hospital under sponsorship of the state medical society

A NEW ATTACK ON TUBERCULOSIS was launched in October by the Tuberculosis and Health Association and the Monroe County Medical Society with the announcement of the opening of a "Healthy House"

"Healthy House" is at 285 Alexander St, Rochester in a building lent by John Pike. It is equipped for a display of motion pictures prepared under direction of the State Department of Health. Rochester Council of Social Agencies and Public Health Nursing Association

Although paraphernalia and programs are designed primarily for instruction of health workers in the technic of health education, the public are invited to see the pictures and hear the instruction

Medical News

Albany County

DR EDWARD M. BELL, Colhoun health commissioner who died on Oct. 19, had practiced medicine there more than forty years.

Broome County

DR ROBERT A. KILDUFFE, director of laboratories of the Atlantic City hospital spoke on "The Clinical Utilization of Blood Studies" at a meeting of the Binghamton Academy of Medicine on Oct. 19.

Columbia County

THE FIRST MEETING of the season of the Woman's Auxiliary to the Columbia County Medical Society, Mrs. Henry C. Galster, president, was held on Oct. 19, in Cavell House, the Nurses' Home, on Prospect avenue, Hudson.

The speaker of the afternoon was Miss Edith Laey, director of nursing, of the School of Nursing of the Hudson City Hospital.

Dutchess County

DR GORDON MACKENZIE, Millbrook Golf and Tennis club links' star, and Dr. M. B. Bevier of the Dutchess Golf and Country club captured major laurels in the Vassar hospital handicap, held at the South road links on Oct. 6. Others who captured awards included Dr. John Turiga of Southern Dutchess, Dr. John F. Rogers, Dr. Gilbert MacKenzie of the Millbrook club, Dr. V. F. Downing, also of Millbrook and Dr. Charles Kovacs and Dr. Joseph Cummings.

Erie County

DR EDWARD E. HALEY, chairman of the Health board of Buffalo was appointed deputy health commissioner and director of the Health Department's Communicable Disease division at an annual salary of \$6000, on Oct. 15.

Dr. Haley said he will continue temporarily at least as Health board chairman although he will decline the \$1000 annual salary.

Dr. Haley intimated he plans reorganization of the operation of the communicable disease division.

"The division is all mixed up and is doing some types of work that it is not

called upon to carry out," he said. "I plan to bring right out of chaos."

WITH FOUR PROMINENT medical men as speakers, a public meeting on the control and prevention of cancer was held Oct. 28 in YMCA building, Buffalo, under the joint auspices of the Academy of Medicine, the Medical Society of the County of Erie, the Eighth District Dental society and the health division of the Council of Social Agencies. Dr. John T. Donovan presided.

Speakers and their subjects were: Dr. C. C. Little, managing director of the American Society for the Control of Cancer, "The Campaign Against Cancer"; Dr. Burton T. Simpson, director of the State Institute for the Study of Malignant Disease, "Scientific Facts About Cancer for Doctor and Layman"; Dr. John W. Swan, executive secretary of the New York State committee of the American Society for the Control of Cancer Inc., "What the Layman Should Know," and Dr. Karl F. Eschelman, chief of cancer service of the Buffalo City hospital, "Diagnosis and Treatment for Cancer in a Public General Hospital."

A NEW PROPOSAL for compensating physicians of Buffalo for treating patients on the welfare rolls is under consideration by members of the Medical Society of the County of Erie.

Outlined at the society's first Fall meeting on Oct. 18 in Hotel Statler by Dr. Joseph C. O'Gorman, chairman of the economics committee, the plan calls for an allotment of funds to the society by the city on the basis of so much a month for each family or each member of a family on the relief roster.

The agreed monthly budget less cost of administration would be allocated to co-operating physicians on the basis of service rendered. Dr. O'Gorman explained. All details of administration would be directed by the society. The plan would apply only to medical care in the home and would not replace existing hospital or clinic facilities, Dr. O'Gorman said.

After prolonged discussion action on the plan was deferred until the society's meeting Nov. 15.

Dr. John T. Donovan, president of the society, presided.

LETTERS to 167 physicians and sixty-

Oneida County

THE ONEIDA COUNTY MEDICAL Society has appointed a committee to confer with the Utica Academy of Medicine on securing a full-time paid secretary

OPPOSITION TO ESTABLISHMENT of a new county Medical laboratory is voiced by the Medical Society of Oneida County in a letter to the Board of Supervisors

The communication declares members of the society are opposed to such a project "because they feel that there are enough laboratories in the county at present to take care of all necessary work."

Action of the society was unanimous, according to the letter, which said "it was also suggested that it be pointed out to the various towns that they can arrange to have their work done at the state laboratory the same as does Utica and New Hartford"

Ontario County

DR. FREDERICK C CLELLAN, Canandaigua city health officer, was elected president of the Ontario County Medical Society on Oct 12 at the 132nd annual meeting at East Lake shore. At the same time, Dr Daniel A Eiseline was named secretary and treasurer for the forty-first consecutive year, and Dr A W Armstrong was elected vice president, succeeding the new president

Approximately 60 members and guests attended the session, which opened with a business meeting, followed by dinner and a program, with Dr Ernest L Stebbins, district state health officer, as speaker. Dr Stebbins discussed "Source, Diagnosis, Clinical Course, and Treatment of Some of the More Frequent Streptococcus Infections Encountered in Medicine"

Dr Chauncey W Grove retiring president, presided. Named to the Board of Censors for another year were Drs J S Morabito, Malcolm R Blakeslee, and A G Odell. Dr W S Thomas was reelected editor of *The Bulletin*, quarterly publication of the society. Dr H J Knickerbocker will be delegate, with Dr M D Dickinson alternate to the state convention next Spring. The next meeting will be in Canandaigua Jan 11

DR. A W ARMSTRONG was host at the meeting of the Canandaigua Medical Society, on Oct. 14, when Dr Adrian Taylor of Clifton Springs spoke on "Empyema"

Oswego County

THE 116TH ANNIVERSARY of the Medical society of Oswego county was observed with a dinner meeting Oct. 14. The speakers

were Charles H Goodrich, M D, F.A.C.S., president of the Medical Society of the State of New York, whose subject was "Preventative Medicine" and Morris Fishbein, M D, editor of the *Journal* of the American Medical Association, who spoke on "Medicine and the National Policies"

Queens County

THE PROGRAM OF THE Medical Society of the County of Queens on Oct. 26 included papers on "Therapeutics of Menstrual Dysfunction," by Raphael Kurzrok, M D, and "Breech Delivery—The Simple Application of Forceps in Occiput Posterior," by Hervey Clock Williamson, M D

The program also included nominations for offices to be filled at the Annual Meeting on November 30. *President-Elect*, Drs Joseph Wrana and Jacob Werne, *Secretary*, Dr Frank R Mazzola, *Assistant Secretary*, Dr Chester L Davidson, *Treasurer*, Drs William T Berry and Tobias Watson, *Assistant Treasurer* Dr Daniel J Swan, *Historian*, Dr Carl Boettiger, *Directing Librarian*, Dr Carl Boettiger, *Assistant Directing Librarian* Dr William Benenson, *Five Censors* Drs Edward Steiner Raymond Murphy, John Wolfram Walter Kerby, Jacob Werne, Robert Yanover, *Five Trustees*, Drs William T Berry, Francis Riley, Albert Voltz, Walter Lynn, Herbert Langer, Thomas d'Angelo, *Delegates*, Drs James M Dobbins, H P Mencken, James R Reuling, *Alternates*, Drs Walter Lynn, Daniel Swan, Charles Miller

THE ANNUAL MEETING of the section on pediatrics is scheduled for December 9, at 8 30 P M, at the Society's Building. The program will be "Dermatological Conditions in Children." Members of the Society are invited to attend

THE WOMAN'S AUXILIARY to the Medical Society of the County of Queens held its annual fall dinner-dance November 6

Rensselaer County

DR. AUGUSTUS J HAMBROOK was named a member of the state advisory council on health and physical education in public schools by the Board of Regents on Oct 15. He will succeed Dr Floyd S Winslow

Rockland County

WITH THE RESULTS of twenty years of campaigning for early diagnosis of tuberculosis reflected in a contagion and death rate for Rockland county that compare favorably with any other section of the State, the Medical Society of the County

BOOKS

[Volume 37]

Disease following such injuries must appear within one week or ten days.

Latent and symptomless pathological conditions are often suddenly activated by trauma and controversy often arises as to whether a disease appearing after an injury is compensable.

Coronary occlusion following blows to the chest in patients with coronary disease, peripheral vascular lesions, the disputed question of brain tumors following head injuries, foetal deaths in pregnant women, spontaneous fractures, conditions in the genito-urinary and gastro-intestinal tracts and mental derangements are thoroughly described. With the necessary number of physicians doing industrial medicine and compensation work, this book offers important information and should be read by all as all specialists are considered.

MAURICE J DATTELBAUM

Diseases of the Nose, Throat and Ear
A Handbook for Students and Practitioners
By I Simson Hall, M B Duodecimo of
423 pages, illustrated Baltimore, William
Wood & Company, 1937 Cloth, \$4.00

Diseases of the Nose, Throat and Ear
by Hall is a handy small volume enumerating most of the more common abnormal and diseased conditions of these areas and discussing management and treatment which could be carried out by some general practitioners. It is a book which might also be used by students. However, there are many books of this scope and these needs have long been met. Furthermore, there are many instances in which too much knowledge or ability in the general practitioner seems to be taken for granted, and surgical treatment is outlined quite casually, which should never be undertaken except in expert hands.

CHARLES R WEETH

Clinical Allergy By Louis Tuft, M D
Octavo of 711 pages, illustrated Philadelphia, W B Saunders Company, 1937 Cloth \$8.00

The doctor states in his preface that there is a distinct need of a book on allergy which meets the needs of the general practitioner, the medical student, and the beginner in the field. In this the reviewer is in complete accord. Some of the recent books on allergy are so full of controversial matter that only confusion can result from their perusal by any one other than an allergist. The present volume presents in a direct way what we really know about allergy. Its chapters cover anaphylaxis in animals and in man and its relation to allergy, methods of diagnosis, history taking which is very important, as it is in every field of medicine, skin testing, and the methods and principles of treatment.

All of the important manifestations of

allergy are covered as to etiology, pathology, symptomatology, diagnosis and treatment. Allergy as related to the specialties is also covered, namely, dermatosis, allergy in children, neurology, ophthalmology, and otorhinolaryngology. The appendix contains material on laboratory methods, directions for patients, lists of allergens and their sources, allergic diets and recipes. The book reads easily and is full of meat. The reviewer recommends it highly to the doctor wishing to keep abreast in this new and growing field of medicine.

GEORGE A MERRILL

The Technic of Local Anesthesia By
Arthur E Hertzler, M D Sixth edition.
Quarto of 284 pages, illustrated St Louis,
C V Mosby Company, 1937 Cloth, \$5.00

This latest edition of local anesthesia by Hertzler gives a clear description of the author's successful technique in the management of his surgical work. The first portion of the book is quite similar to the material in earlier editions. In the later chapters the author has gone more extensively than before into the subjects of paravertebral anesthesia and sacral block, and is very moderate in his claims for them. A chapter on spinal anesthesia, written by one of his associates gives a middle-of-the-road opinion of the usefulness of the method and a chapter on intravenous anesthesia closes the book. Yet with the multitude of new drugs introduced to the medical profession for intravenous anesthesia even this 1937 edition fails to mention some of the latest and most advertised preparations.

GEORGE W TONG

Pediatric Dietetics By N Thomas Saxl
M D Octavo of 565 pages, illustrated Philadelphia, Lea & Febiger, 1937 Cloth, \$7.00

In outlining a diet for infants and children, it is imperative that one be conversant not only with the rules and foundation of food stuffs for the human being but also it is necessary to be able to give in detail how to prepare and select a proper dietary. If one merely outlines a 24 hour diet it is not enough. How often does the mother reach home only to call up again and again wanting specific instructions, as to how much vegetable or meat or cereal her child should be served, also, desiring a list of food stuffs that happen to be in season.

This book more than fulfills what most of our modern textbooks leave out. The dietetic handling of various diseases and the reasons for it is timely. The bibliography leaves nothing undone. The bibliographer can well recommend this book for anyone's office.

THURMAN B GIVAN

occurred in individuals in the third decade of life (Table II). The group consisted of fifty-three male, white adults and one female, white adult. The period of exposure varied from two weeks to three months. The onset of acute symptoms in forty-three (79.6%) of this group followed absorption through the respiratory tract. The period of exposure was somewhat longer and symptomatology not so severe in those patients (20.4%) in whom it was believed that the gastrointestinal tract was the probable portal of entry.

The inhalation of lead was responsible for the onset of acute symptoms in forty-three patients. There were eleven painters who developed acute toxic symptoms. In seven, symptoms appeared following the inhalation of lead dust (Table III).

During 1935, a group of thirty-five riveters were employed in the construction of a bridge. The steel girders used were painted with red lead and in driving the hot rivets through the girders, the paint was melted and fumes escaped. These men had worked approximately ten to fifteen years as riveters. Their work was usually done out of doors, consequently the concentration of lead in the air never reached sufficiently high proportions to constitute a hazard, but in the construction of the tower of a bridge a situation comparable to an enclosed chamber was created. As no precautions were taken to ventilate the chamber and masks were not worn, two weeks after beginning the job several of the workers were seized with acute abdominal colic and complained of constipation.

Gastrointestinal tract. Symptoms referable to the gastrointestinal tract occurred frequently. Acute abdominal colic was the most striking clinical feature. Epigastric pain, constipation, and colic occurred in eighty per cent of this group. All these men continued to work despite weakness and loss of weight until the onset of severe colic. In many, the acute episode was heralded by the onset of violent lower abdominal pain. Nausea and vomiting were present in twenty-four per cent of the group. The loss of weight was probably due in a large measure to the loss of appetite. The men feared to eat because "they would have pain." The average loss of weight was approximately eighteen pounds. The "general weak-

ness" (52%) was probably due to insufficient food intake.

Neuromuscular system. Under this heading we have grouped all complaints referable to the joints, nerves, muscles, and brain. Wright²³ and Linenthal²⁴ called attention to the "rheumatic pains" which occur in lead workers. Myalgia due to lead not infrequently remains undiagnosed in the absence of a history of occupational exposure. Two patients complained of severe pain in the mid and lower back. If a history of occupational exposure had not been obtained, lumbago of undetermined etiology would have been the diagnosis. Eighteen (33.3%) complained of pain referable to the muscular system and twenty (37%) had joint pains. The elbows, wrists and ankles were the joints of predilection. The joints were not swollen, disfigured or discolored and there was no interference with joint function. Tenderness was not present. The pain was placed "in the joint" and was fleeting in character. In the absence of a history of occupational exposure a diagnosis of arthralgia of rheumatic or nonspecific origin would have been made. Numbness in the extremities was noted in ten (18.5%) of our patients and sleeplessness in eight (14.8%). In most instances pain in the abdomen and in the joints was more pronounced at night than during the day. These patients were tired but sleep was disturbed because of the increased severity of the pains. Headache was present in seven (12.9%). These headaches were not localized and in only one instance was it sufficiently severe to indicate spinal puncture. Spinal fluid findings were normal in every respect including manometric pressure, cytology, albumin, globulin, and sugar. Serological study of the fluid withdrawn was negative for syphilis. One patient developed auditory nerve deafness due to the toxic effect of lead.

Physical examination. The paucity of positive findings on physical examination was striking. Pallor was noted in forty (76.5%) and a lead line in eleven (20.3%). Oral hygiene is an important factor in the production of the lead line. When the oral hygiene is good a lead line is seldom seen even when the diagnosis of acute lead poisoning is estab-

TABLE I—DISABILITY FROM LEAD POISONING IN STATE OF NEW YORK 1932-1935

	Total cases	Total weeks	Kind of disability				
			Death and permanent total	Permanent partial		Temporary	
				Cases	Cases	Weeks	Cases
1932	86	5,253	3	1	309	82	1,854
1933	87	6 123	(1) 3	2	789	52	2 335
1934	70	5,340	(1) 3	2	729	65	1,611
1935	99	8 414	(1) 3	3	2 321	93	3,093

TABLE II—ANALYSIS ACCORDING TO AGE

Age	No of cases
20-30	10
30-40	37
40-50	6
50-60	1

TABLE III—OCCUPATIONAL DISTRIBUTION

Occupation	No of cases
Riveters	35
Painters	11
Water tank cleaners	4
Compositors	1
Lead smelting	3

tenderness, muscle spasm, fever, rapid pulse, leukocytosis, and polynucleosis. The diagnosis of chronic lead poisoning is best portrayed by the changes in the nervous system. In instances of atypical and bizarre neurological signs and symptoms, lead as a causative factor should be considered. Altman and Nowotny¹⁷ described four cases of atypical nonindustrial lead poisoning occurring in adults. These cases of lead poisoning were complicated by a primary spinoperipheral neurologic disorder. All four patients came from the same district and upon investigation, lead in the drinking water was found to be the responsible agent. Lead as a possible etiologic factor in multiple sclerosis was described by Cone and his associates.¹⁸

The respiratory tract is probably the most important portal of entry through which lead dust and fumes gain entrance into the circulation and produce symptoms of intoxication. Absorption of lead through the normal skin almost never occurs. The normal skin is practically impermeable to the inorganic compounds

of lead. Even if the skin is damaged by inflammation, infection or injury, it is doubtful if absorption ever takes place via this route. Among the organic compounds of lead, tetraethyl lead has been shown,^{19, 21} by virtue of its solubility in alcohol and miscibility in oils and fats to be absorbed through the unbroken skin in sufficient amounts to constitute a hazard. We call special attention to the lead content in tetraethyl gasoline because of the increasing popularity of this gasoline. Professor Martin Meyer²² of the Department of Chemistry of the Brooklyn College, in a study of the exhaust of various automobiles found that 22 to 150 mgm of lead were discharged per minute. It becomes evident that the exhaust from aeroplanes and automobiles constitutes an ever increasing lead hazard to the nonindustrial population of any large city.

Lead Poisoning In Industry

During the four year period of 1932-5* (Table I) there was a total of 342 cases of lead poisoning with an average disability of seventy-three weeks. In the group with permanent partial disability there were eight cases (2.3%) and in the group with death and permanent total disability there were twelve cases (3.4%). During the same period of time 322 (93%) were temporarily disabled with an average of 27.5 weeks. Considering the number of employees engaged in the various lead industries in the State of New York, the number here reported may be considered comparatively small. However, with the advances made in the field of preventive medicine, especially in the field of lead poisoning, many of these cases, if not all, could possibly have been avoided.

Acute Lead Poisoning In Industry

We are basing this report on a study of fifty-four cases, the majority of which

*We had the opportunity of reviewing the records of the New York State Department of Labor on the subject of industrial lead poisoning through the courtesy of Dr. Eugene B. Patton and Dr. Leonard Greenberg (Director of the Division of Statistics and Director of the Division of Industrial Hygiene, respectively, of the Department of Labor, State of New York).

vascular system is not adversely affected in acute lead intoxication

Chronic Lead Absorption With Acute Toxic Symptoms

We have chosen this title rather than chronic lead poisoning by reason of the fact that this group of thirty-eight male, white adults had been exposed to the absorption of lead for many years and suddenly developed acute toxic symptoms primarily referable to the gastrointestinal tract.

The majority of these cases occurred in individuals in the fourth and fifth decades of life. The period of exposure varied from two to thirty-three years (Table IV)

Absorption of lead from the gastrointestinal tract in twenty-four painters (63.1%) over a period of twenty to thirty years was followed by an acute toxic episode after exposure to the inhalation of lead dust for a short period of time. In a few instances acute colic followed without any undue exposure to the inhalation of lead dust and during the routine and usual work. The occupational distribution of the other remaining fourteen cases is such that the chronic absorption of lead was due to inhalation (Table V)

Gastrointestinal. Symptoms referable to the gastrointestinal tract were almost as prominent in this group as was noted in the group with acute lead poisoning. Colic and constipation were the most striking clinical features. Colic occurred in twenty (52.6%) of the patients. It presented all of the characteristics and differed in no way from that noted in the acute group. Constipation was the next most frequent complaint and was noted in seventeen (44.7%). Nausea, loss of appetite, loss of weight, and abdominal pains were each recorded in ten (26.3%). Loss of weight was not quite as marked nor did it occur as rapidly as in those who suffered from acute lead poisoning. It was the fear of pain that resulted from the intake of food which caused them to abstain from eating. The resulting weakness was probably due to malnutrition.

One of the patients developed diarrhea which was accompanied by a high temperature, rapid pulse, and subsequent

jaundice. The blood study indicated a leukocytosis and the sedimentation rate was rapid. Culture of the stool yielded a nonhemolytic streptococcus. This case was unusual in that infection probably liberated lead from the tissue depots where it had been stored innocuously.

Neuromuscular system. The diagnosis of chronic lead poisoning is frequently made following the onset of changes in the nervous system. It is therefore to be expected that in a group of workers in whom absorption occurred at a slow rate and over a long period of time that neurological manifestations would occur more frequently than in those who had been exposed for a short period of time. Myalgias were present in thirteen (34.1%). The pains were severe and were located in both upper and lower extremities. The large muscle groups were affected. There was no disturbance of motion in any of the joints. Headache occurred in eight (21.1%). It was not severe and could not be localized and varied from a "tightness across the temples" to a "pulsating pain" which lasted for short periods of time. There was no indication for spinal puncture. General decrease of muscle power, weakness of grip, numbness of the arms and shoulders, dizziness, and disturbances of vision were present in six (15.9%).

Physical examination. Unless signs were evident the absence of positive find-

TABLE IV—ANALYSIS ACCORDING TO AGE

Age	No. of cases
20-30	5
30-40	8
40-50	15
50-60	10

TABLE V—OCCUPATIONAL DISTRIBUTION

Occupation	No. of cases
Painting	24
Stereotyping	4
Smelting	2
Storage battery worker	1
Moulding	1
Filing babbit bearings	1
Installing (gasoline) tanks	1
Acetylene burner	1
Welding	1
Electrotyping	1
Riveter	1

lished. The decay of vegetable matter in the mouth causes the liberation of hydrogen sulphide which combines with lead in chemical composition to form a black lead sulphide. Much stress has been placed on the presence of the blue line on the gum. When present it is of value only in so far as it lends confirmation of lead absorption. Mercury and bismuth produce a discoloration of the gums which cannot be distinguished from the lead line. Severe primary anemia and blood dyscrasias may similarly discolor the gingival margin. In a group of workers exposed to the absorption of lead, the presence of the lead line in a few may perhaps be used as an index of lead absorption in the group. The rate of absorption, the concentration of the lead inhaled, and the severity of symptoms produced cannot be estimated from either the presence or absence of the lead line. In spite of poor oral hygiene in seventy per cent of our patients, a lead line was noted in only eleven (20.3%). Examination of the heart and lungs showed no abnormalities. On abdominal examination cecal tenderness was present in eight (14.8%) and sigmoid spasm in twenty-five (46.2%) of the group. Manual pressure over the site of the abdominal colic invariably relieved the pain. In one patient a carcinoma of the rectum was found.²⁶ Despite the high concentration of lead in the tissues the carcinoma grew rapidly. The neurological examination revealed no abnormal findings except that occasionally slight decrease in vibratory sensations of the hands and fingers was noted.

Laboratory data. The hemoglobin was slightly decreased. The total red blood cell count indicated a moderate anemia in keeping with the reduction of the hemoglobin yet not as low as one would estimate from the severity of the pallor. A constant finding was the diminution of the platelet count to below 200,000. In spite of the reduction of the platelets, bleeding and coagulation time was normal. On differential study a lymphocytosis was the rule. Basophilic stippling was noted in forty per cent of our patients. As early as 1902, Keil²⁸ noted that, "the red blood cells in patients suffering from severe anemia due to carcinoma gave the appearance of basophilic granules. The salts of copper, cobalt, arsenic and thal-

lium produced a similar effect on the cytoplasm of the red blood cells. Certain gasses such as carbon monoxide and blood diseases such as pernicious anemia, Hodgkins disease, anemia caused by blood parasites and sepsis produce changes in the cytoplasm of the red blood cell which are indistinguishable from the stippling noted in lead poisoning." Chronic anilin poisoning²⁷ affects the red blood cell and makes its cytoplasm indistinguishable from that noted in lead poisoning.

Examinations of the urine, stool, and whole blood for lead were done as a routine on all patients on admission and during the period of treatment at the hospital. In forty-one patients (75.9%), lead was present in abnormal amounts in the urine on admission examination. Abnormal amounts of lead were present in the stool in thirty-two (59.2%). Only twenty-one (38.8%) had abnormal amounts of lead on examination of the whole blood. Chemical examination of the blood revealed normal values of sugar, urea, creatinin, uric acid, and CO₂ combining power. Calcium and phosphorous studies on whole blood also gave normal values. Examinations were done to determine the function of the liver and kidneys, stomach, and cardiovascular system. In a future communication, results of these examinations will be presented in detail. The usual tests were employed for study of renal and hepatic function. In none of the patients were we able to find convincing evidence of impaired function as indicated by the examinations done. Fluoroscopic examination of the gastrointestinal tract showed varying degrees of spasm of the colon, especially affecting the distal half. Retention of barium for longer than seventy-two hours was the rule. Approximately fifteen per cent of this group had marked spasticity of the descending colon and sigmoid with retention of the barium for longer than 120 hours. In one patient suspicious evidence of an ulcer of the duodenal bulb was noted. In almost all of our patients hypotension was present. In addition to the physical examination of the cardiovascular system, fluoroscopic examination of the heart, electrocardiographic studies, oscillographic studies, and the cold pressor test as described by Brown²⁸ were done. Our experience indicates that the cardio-

Even after admission to the hospital and during the period of "control" study these blood pressure determinations remained as noted. Within forty-eight hours after the institution of deleading therapy a decided and prompt drop in both the systolic and diastolic blood pressures occurred. Blood pressure determinations then read 120/70, 160/90, and 140/78 respectively in the order mentioned. We call attention to the paroxysmal hypertension.

Cardiac hypertrophy was noted fluoroscopically and confirmed roentgenographically in ten (26.3%). Hypertensive cardiovascular disease was responsible for the cardiac hypertrophy in eight, in the remaining two, one was due to syphilis and the other was an idiopathic cardiac hypertrophy. Electrocardiographic studies were done on all thirty-eight patients. Twenty-eight of these tracings showed no deviation from normal. The abnormalities were distributed as follows: left axis deviation four, auricular fibrillation one, and myocardial damage five. Abnormalities in the R-T transmission and T wave were the only findings indicative of myocardial damage. Oscillometric determinations were done on the dorsalis pedis, posterior tibial, and the popliteal arteries of both lower extremities. None of the curves showed evidence of occlusive vascular disease. Cold pressor tests were performed on eight patients. In only one instance was an abnormal response observed. The basal blood pressure was

106/74. After the hand was immersed in water at four degrees C, the blood pressure rose to 150/106. This patient gave a maternal history of hypertensive vascular disease. The patient himself was a forty year old white male probably belonging to the essential hypertensive group. A detailed discussion of the many interesting phenomena observed in the study of the cardiovascular system in this group with chronic lead absorption will be presented in another communication.

Summary

1 The absorption of lead in the general civilian population and its possible relation to disease requires further investigation and study. The diagnosis of lead poisoning in nonindustrial life is most frequently among children.

2 The occurrence of lead poisoning in the State of New York for a period of four years has been reported. It is probable that the disability and cost of illness could have been reduced to a minimum if the advances made in the field of preventive medicine were practiced with greater care.

3 We have reported fifty-four cases of acute lead poisoning and thirty-eight cases of chronic lead absorption with acute toxic symptoms and have analyzed the data presented.

41 EASTERN PARKWAY
85 EASTERN PARKWAY

References

- 1 Kehoe, R. A., Thamann, F., and Cholak, J. *Jour Ind Hyg*, 15 257, 1933
- 2 Suzuki, T. and Kaneko, J. *Jour Orient Med*, Dairen, (Manchuria), 2 55, 1924
- 3 Wilcox, H. B. and Caffey, J. P. *J.A.M.A.* 86 1514, 1926
- 4 Ginandes, G. J. *Jour Mt Sinus Hosp*, 2 74, 1935
- 5 McKhann, C. F. and Vogt, E. C. *J.A.M.A.* 101 1131, 1933
- 6 Mitchell, H. S. *Canad Med Jour*, 26 546, 1932
- 7 Williams, Schulze, Rothschild, Brown, and Smith. *J.A.M.A.* 100 1485, 1933
- 8 Goodwin, T. C. *Bull Johns Hopkins Hosp*, 15 347, 1934
- 9 Beech, A. *Rev Hyg Med Prof* 55 541 1933
- 10 Knowlton, M. *J.A.M.A.* 91 1892 1928
- 11 Editorial. *Lancet*, 5163, 349, 1922
- 12 Froboese, V. *Z. Untersuch Lebensin* 65 176, 1933
- 13 Mladenoff, D. *Presse Med* Aug 11 1923
- 14 Holt, L. E., Jr. *Amer Jour Dis Child* 25 229 1923
- 15 McDonald, S. T. *Med Jour Australo*, 17 806, 1933
- 16 Kehoe, Thamann, and Cholak. *Jour Ind Hyg*, 15 273 1933
- 17 Altmann, O. and Nowoany, K. *Wien Klin Wchschr*, 49 613, 1936
- 18 Cone, Russell, and Harwood. *Arch Neur and Psych* 31 236 1934
- 19 Machle, W. F. *Jour Amer Med Assn*, 105 578 1935
- 20 Leake, J. P. *U. S. Pub Health Bull*, 163 23 1926
- 21 Kehoe, R. A. and Thamann, F. *Amer Jour Hyg*, 13 478, 1931
- 22 Meyer, M. Personal communication
- 23 Wright, W. Quoted by Alice Hamilton, *Ind Poisons in U. S.* p. 204, 1930
- 24 Lunenthal, H. *Early Diagnosis of Lead Poisoning*, Ind Health Kober and Hayhurst, Philadelphia, p. 433
- 25 Gray, Irving and Greenfield, Irving. *N. Y. State Jour. Med.*, 37 649 1937
- 26 Keil, A. *Therap Monatsheft* 16 545 1902
- 27 Malden, W. *Jour Hyg London*, 7 672 1907
- 28 Hines, E. A. and Brown, G. E. *Proc Staff Meet Mayo Clinic* 10 371, 1935
- 29 Gettler, A. Personal communication

ings on physical was striking. A moderate degree of pallor was noted in six (15.7%). The lead line on the gum was noted in eight (21.1%) and was absent in thirty (78.9%). Elevation of blood pressure was noted in eight (21.1%). All these patients were between the ages of forty-five to sixty years. Cardiac hypertrophy was found in ten (26.3%). Varying degrees of abdominal tenderness with spasm of the sigmoid and lower third of the abdomen was noted in seven (18.1%). General decrease of muscle power occurred in six (15.7%) and atrophy of the interosseal muscles in three (7.8%). Bilateral wrist drop was present in two patients. Finger drop was also noted in two patients.

In analyzing the causes of disturbed vision in six of our patients, retrobulbar neuritis of the optic nerve, Argyll-Robertson pupil as part of a central nervous system syphilis, and arteriosclerosis of the retinal artery were each present twice. The retrobulbar neuritis of the optic nerve was the only cause of disturbance of vision which could reasonably be attributed to lead. Sclerosis of the retinal artery was part of a generalized arteriosclerotic process in two patients both of whom were in the fifth decade of life.

Laboratory data. Slight decrease in the hemoglobin was paralleled by a decrease in the red blood cell count. Stippling was found in the blood smears of six (15.7%). Chemical examination of the urine, stool, and whole blood was done routinely on admission and following the institution of deleading therapy. Twenty-four hour specimens of both urine and stool were collected for examination. Proper precautions were exercised in the selection of containers and in the method of collection. Cleanliness of the apparatus was rigidly guarded. The importance of meticulous care in the estimation of lead in biological materials was recently stressed by Gettler.²⁰ The Dithizone method for the detection of lead was carried out by qualified chemists. Examination of the admission specimen revealed the fact that abnormal amounts of lead were excreted in the urine of thirteen patients (34.1%) and in the stool of eight (21.1%). Abnormal amounts of lead in the whole blood were found in only five (13.1%). Chemi-

cal examination of the blood of thirty-seven in this group revealed normal values for sugar, urea, uric acid, creatinin, and CO₂ combining power. Calcium and phosphorus studies on the whole blood remained fairly constant and within normal limits in all. It is interesting to note that one patient who had a marked nitrogen retention also had evidence of severe renal damage associated with arteriosclerotic and hypertensive cardiovascular disease. This patient had been exposed to the absorption of lead for twenty-five years prior to the onset of abdominal symptoms. He recalled having been "sick several times" during childhood but the exact nature of these illnesses were not known to him. He had never been examined by a physician since childhood. Whether or not lead was responsible for the marked hypertension associated with hypertrophy of the left ventricle, advanced arteriosclerosis, and contracted kidney (autopsy finding) or whether the renal disease was primary and the hypertensive and arteriosclerotic heart disease was secondary remains a matter of conjecture.

Cardiovascular system. Studies of the cardiovascular system were done as a matter of routine on all patients in this group. The studies included blood pressure estimations, fluoroscopic examination, teleroentgenographic studies, oscilometry, cold pressor test, and electrocardiographic studies. Hypertension was noted in eight (21.1%). It is of interest to note without going into detail a phenomena which was observed in three patients of the hypertensive group. In each instance blood pressure determinations were made repeatedly to eliminate the extrinsic factors which might be responsible for the elevation of blood pressure. The final constant reading obtained was 190/110, 198/104, and 162/90 respectively. These patients had been removed from the occupational hazard for several weeks before they came under our observation. Deleading therapy was instituted as a hospital procedure to insure absolute control of the patient, rigid adherence to the diet, and to facilitate the collection of urine, stool, and blood for study as indicated. Our patients were not confined to bed during the hospital stay which varied from two to three weeks.

Several have had complicating interdigital patches. Never has it been observed on the palm.

On the bulb of the big toe it may bear a superficial resemblance to a nevus. But the patch is more frequently mistaken for a common callus or localized hyperkeratosis, or for a subacute scaling dermatophytosis. Paring shows its true nature, with the tell-tale capillary bleeding points. Many patients have had mosaic patches for years, considering them simple calluses.

Our findings are not in accord with Andrew's statement that the cores "are surrounded by a firm horny ring." Rather has it been our observation that the individual warty segments in a patch are not round, nor are they encircled by a marked horny membrane.

Apart from the multiplicity of coalesced wart-cells we have found that the character of the border of a patch is important in diagnosis. Even a large compound verruca vulgaris on the sole has a sharply limited border, in fact many of them can be encircled by a shallow spoon-curet and enucleated. Mosaic patches, on the other hand, have a diffuse border, with small warts making the edge irregular. There have been borderline cases that for a time have puzzled us.

But in general, we have found that those with sharp limitations proved to

be radiosensitive and should not be included in the mosaic category.

One point which has impressed us is the frequent association of the mosaic wart with dermatophytosis, a matter of coincidence perhaps, on account of the ubiquity of the latter. Still we almost always find the two diseases coexistent. This does not obtain nearly so often in the case of the common plantar wart. In this connection several patients have stated that their patches arose on sites previously involved by eczematoid ringworm.

The mosaic wart rarely appears in clinic practice. All but two of our cases have been private. On this account our opportunity for obtaining material for microscopic study has been limited. Private patients, to whom we could extend no hope of cure by excision, were unwilling to have an open wound on a weight-bearing surface, undercutting and suturing generally being out of the question.

The reports on one microscopic specimen are interesting. One dermatopathologist, Satenstein, states

This type in all probability is a papillary dermatitis. From its clinical characteristics, mode of development and resistance to therapy it does not fall into the category of true plantar warts. It is, from histologic structure, more like a dermatitis with papillary outgrowth, often associated with the



Fig 1 Good example of mosaic pattern with outlying toe warts



Fig 2 Roentgen-ray ulcer following two series of treatments in hospitals for mosaic warts. Mosaic patches still present.

MOSAIC WART

An Unusual Type of Plantar Wart

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Three years ago, in reporting our experience in the management of plantar warts in some 426 private patients,¹ we mentioned the unusual resistance to all kinds of therapy of a multiple, patchy variety, limited almost invariably to the sole. To this type, one of us in 1928,² from its surface characteristics, applied the term "mosaic."

Search of the literature has disclosed only two brief notes regarding it and no reference to resistance is made by either Taussig and Miller³ remark "There may be a nest of warts of nearly equal size" Andrews⁴ gives a good description

Sometimes they (plantar warts) are grouped, or several contiguous warts fuse so that they appear as one until the keratotic surface is shaved off and the multiple cores are revealed. These cores are soft and pulpy and are surrounded by a firm horny ring. They occur in no other form of wart but resemble somewhat the cores in corns.

The mosaic wart appears most commonly on pressure points of the sole in the form of a variously sized patch. It is irregularly bordered, dry, and topped by a rather granular, friable, horny mass. It is usually painless. On paring one sees an area composed of soft, corn-like segments, so closely packed that those in the central part have angular, rather than rounded, borders. The individual cell or core is usually from two to three mm. in diameter. Patches may vary in size from that of a pea to five or more cm. across. The whole gives the appearance of a mosaic floor or the face of a honeycomb.

Mosaic patches increase in size slowly but steadily. Years may pass without any apparent tendency toward undergoing involution.

We have had the opportunity many times of observing their onset and development clinically. Papillary lines on the pressure surfaces of the sole are

large and translucent, often transparent. By moistening the skin with alcohol, oil or glycerine, one can see quite deeply. The earliest lesion appears as a local widening of a normal papillary line. Sometimes two such minute growths appear side by side within a line. More and more such papillary enlargements are noted. They increase in size until definite cores with keratotic caps are found. These are to be seen best at the border of a patch or in recurrences, at the edge of an excision or electrocoagulation wound.

In new areas the process of development seems to be the same. Localized broadenings of normal lines develop into warty growths, pin-head in size or slightly larger, which fuse to form a mosaic pattern, but with each cell maintaining its individuality.

Numerous minute outlying patches may be found, singly or in groups, some superficially resembling common plantar warts, but paring shows their multicellular character. These outlying warts, separated by normal papillary lines, often give the corneous layer a moth-eaten appearance, such as one sees in mild hyperkeratotic types of ringworm. Such minute lesions never have the initial deeply seated vesicular appearance of the earliest warts of the epidemic variety.

Coincident with large mosaic patches and detached smaller patches and single lesions, there may be found widely scattered, usually single, warty lesions involving the toes or other parts of the foot, or the hands and fingers. Some resemble verruca vulgaris, but more often they are of the thinner, flat-domed fleshy verruca plana type.

We have yet to see mosaic patches on any part other than the sole, the most common locations being under the head of the first metatarsal and beneath the heel.

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester, May 25, 1937*

character of the border of large patches prevents close shielding. On this account possibly effective doses are barred. We no longer use roentgen therapy in this type, except in rare borderline cases.

Excision by scalpel or surgical diathermy has been found unsatisfactory, both as to recurrences and scar formation. We have done excisions of patches of almost a square inch in extent, three-sixteenths of an inch beyond the border, and down through fat to fascia, coagulating bleeding points, which have been followed by recurrences at the border, and in one case by a painful keloidal scar. In these cases the resilient fat pad of the sole is almost invariably damaged by this method.

We have discarded electrodesiccation and electrocoagulation for the same reason. Both procedures in this type of wart are usually ineffective. They produce large ulcers, painful and slow in healing. In persons with thin plantar fat pads, painful callused scars may follow.

Other forms of therapy: intramuscular injections of sulpharsphenamine, bismuth or of salt solution, hemotherapy, suggestion, solid carbon dioxide, galvanism, concentrated solar rays, applications of mercury, of sulphur, and of pyrogallac acid in ointments, of acid nitrate of mercury and of strong potassium hydroxide solution—all have been tried by us, as well as others, and have ended almost invariably in failure. The result is always unpredictable and generally disappointing.

The most satisfactory treatment in our experience comprises the use of salicylic acid followed by silver nitrate. A moleskin plaster having a hole the size and shape of the patch is affixed to the affected area. Sixty per cent salicylic acid paste to a thickness of one-thirty-second of an inch is spread within the hole. This is retained in place by adhesive plaster. The application is repeated every five to seven days. At each visit the macerated tissue is cut away and a new moleskin shield, usually with a contracted hole, is applied. To be successful one must go deeply. That is especially true when one endeavors to reach the main afferent blood vessels. Salicylic acid seems to have a selective action in blanching papillary elongations, thus making it easier to trace their course and to direct therapeutic attention toward the source.

When thin rete without papillomatous structure is exposed, it is swabbed with strong silver nitrate solution (gr 1 to min 1). Several such swabbings are made, each time after paring down the black eschar.

Care is taken to protect the area from water between dressings.

Outlying patches and single lesions are treated similarly. According to size and shape, pieces of forty per cent salicylic acid plaster, reinforced with a thin coating of the paste, are applied under covering discs of adhesive plaster.

As a patch heals the affected area contracts and the normal arrangement of papillary lines is resumed, usually with



Fig 5 Large mosaic patches with scattered satellites off weight-bearing surfaces. They resembled verruca plana.

Fig 6 Mosaic wart resembling nevus.



Fig 3 Large mosaic area with scattered outlying warty elements



Fig 4 Extensive mosaic areas on heel.

development of considerable granulation tissue, and the entire process resembles that of a papillary dermatitis similar to that of dermatitis vegetans, also to granuloma pyogenicum. It may be said that it is the result of injury rather than of infection and is a hyperkeratotic granuloma. It may occur alone or in combination with isolated keratotic spots suggesting true verruca plana.

Another pathologist, from a microscopic specimen alone, could not see anything unusual in the pathology other than closely packed common warts.

The earliest visible changes seem to arise in the papillary body rather than in the epidermis. Macroscopic examination would bear out the theory that the origin of a patch is situated deeply and extends toward the surface by bifurcations of papillary structures. The main stem is not always beneath a patch. In the metatarsal area it is more often in front, the papillary extensions trailing posteriorly beneath the surface. In this location, the site of the majority of our cases, the hyperkeratotic layers are laminate, overlapping from before backward, like roofing shingles. One sees a striking example of that in removing a disc of adhesive plaster. If it be lifted forcibly from the rear one is apt to tear into the skin deeply. Hypertrophied papillae follow these layers, coming to the surface posteriorly.

We have identified eighty-four cases of this type, fifty-eight since our report of 1934. No two have occurred in the same family. Patients' ages have varied between nine and fifty-nine years, with thirty-four as the average. This age

incidence is much above that of the common plantar wart. Fifty-five cases, or over sixty-five per cent, appeared in the third and fourth decades of life. Those remaining were divided almost equally between the ages above and below this sixteen and thirteen respectively. Over eighty-three per cent were in ages above thirty years. Females were affected over males in the proportion of two to one.

Patches in fifty-eight of the series were beneath metatarsal heads, thirteen on the sole of the heel, fourteen on the big toe bulb. Only one, beneath the long arch, was not on a bearing point.

The duration of the lesions before coming to us for treatment varied between three months and twenty years. Over half, forty-three, had existed for over two years, sixty-eight for more than a year. All but six had been treated previously.

Nearly all the cases referred to us had recurred after incomplete removal by excision, electrocoagulation, and acids. Several showed postirradiation ulcers.

While we have been able to cure nearly ninety per cent of ordinary plantar warts by roentgen therapy, using a developed technique, we soon found mosaic warts to be unusually resistant to either unfiltered or filtered rays. As much as five skin units (1750r) have been given the smaller patches and two skin units (700r) to those an inch or more in diameter, closely shielded, without the usual response of desiccation or contraction. Sometimes an initial dose of four skin units (1400r) to smaller patches caused desiccation of the superficial vessels, but later irradiations made no impression. The diffuse

and progressive, and in its resistance to therapy

We believe that nonrecognition of this type of wart as radioresistant has been responsible for many unfortunate post-irradiation complications

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References

- 1 Montgomery, A H and Montgomery, R M *The Management of Plantar Warts* Pan Amer Med Assn Congress 1934 (unpublished)
- 2 Montgomery, A H Paper read before the West Side Clinical Soc. Mar 1928
- 3 Taussig, L R and Miller H H *Amer Jour Roent & Rad Ther*, 20 514, 1928
- 4 Andrews, Geo C *Dis of Skin* W B Saunders Co, 1930

MEDICAL THOROUGHNESS IN JAPAN

As Japan is expanding and taking a larger and larger place in world affairs, it is important to learn what the Japanese are doing along lines that are parallel to our own. A professor of the Philippine College of Medicine at Manila, Dr Regimo Navarro, recently visited Japan and made an interesting report before the Clinical Club in Manila on what he found there. He was especially impressed with Japanese thoroughness. As he said

Another very prominent trait of the Japanese, which is very clearly seen in all their activities, but of which I can judge personally only in their medical activities, is the thoroughness with which they do any job. This thoroughness is probably shown in all fields of work, in commercial, industrial, as well as in other activities. Even in their work in China you see the thoroughness with which they plan and do the job. But it is their thoroughness in the field of medicine that stirs my wonder particularly. In visiting medical institutions such as hospitals, colleges, and institutes, I found the Japanese are not prone to brag of their equipment, of their executive abilities, or of their plans for these institutions but they take intense pride in being able to carry the research activities to a point at which practically every member of the staff carries on some kind of research. This is true not only of institutes and universities but also of hospitals, but it is of greatest importance and of largest scope in the universities and institutes—I mean institutes corresponding to our Bureau of Science here in Manila. When one visits any of these places, be it a hospital, a college or an institute, he is first taken through the building for a general survey. After this preliminary showing the visitor is often asked what particular phase of the work interests him the most. Then he is shown the department which is of most interest to him, and the work in progress there, and is supplied with several pamphlets, reprints, or plans of research to be done for the next three to five years. The thoroughness of their

work is clearly evident in every branch of their scientific activities

The experimental work on cancer being carried on in the Department of Pathology of the Tokyo Imperial University is as complete and as extensive as any of which I have read. The experimental studies on the virus of encephalitis being done in the Department of Bacteriology of the same university are very extensive and comprise not only the study of the viruses but also of their symptomatology, on different laboratory animals, the pathologic changes of the same in the human and in animals, and an attempt is being made to classify different strains by serologic means. A cross immunization process is being carried on with different strains of viruses and an attempt is being made at cross immunization with strains imported from America. It is indeed interesting and very instructive to watch doctors in the Department of Bacteriology carrying on their experimental studies. Just to show the thoroughness of these people—there is even an attempt to manufacture sera for purposes of prevention and therapeutics.

In the government institute for tropical diseases, extensive work has been done on the virus of lymphogranuloma inguinale. The director of the institute takes an active part in these particular studies. He has shown the possibility of demonstrating the virus, of classifying it, of reproducing the disease and of producing immune sera. Different phases of various kinds of studies or experiments are shown the visitor, and the thoroughness with which they carry on their work is evidenced by the different phases of the subject that they plan to study and by the varied and extensive literature they have at hand on the subject.

For one who views all these marvelous scientific activities there is a mixed feeling of admiration and embarrassment—something from one's personal experience as a result of personal investigations or re-

a complete absence of scar formation and with no damage to the plantar fat-pad

The treatment outlined is somewhat painful, but it has never been necessary to incorporate an anodyne in the paste. To prevent recurrences we often prescribe a thirty per cent salicylic acid ointment, to be rubbed into the warty area nightly, using a finger-cot or the knobbed end of a wooden clothespin.

As in the case of fungous infections, persistence is the watchword. We failed in many of our earlier mosaic cases. Our histories in many are incomplete. Pa-

compared, either as to effect or after-effect with salicylic acid.

Summary

Some eighty-four cases of a compound verrucous patch with outlying satellites resembling verruca plana, are reported. Patches have never been found elsewhere than on the sole. They have proved unusually resistant to all kinds of therapy, yielding best, in our experience to repeated applications of sixty per cent salicylic acid paste, followed by swabbings of strong silver nitrate solution.



Fig 7 Extensive mosaic patches which had resisted many types of therapy. Cleared with salicylic acid paste without any scarring.

tients became discouraged and discontinued treatment or went elsewhere. Some were cured by others and we wonder by what method.

The histories of previous treatments are always interesting. We find that many have gone through the entire list mentioned above, from acids to excision, by chiropodist, surgeon, and dermatologist. Some patches have been excised twice and recurred.

Unfortunate results by others using radium, on account of its wide lateral action through a shield-hole, and because of the resistance of this type of wart, have restrained our use of that modality. For awhile we thought we were getting some cures with the half-strength plaque. We still use it with benefit on some of the smaller patches. But it is not to be

The suggestion that they are in the nature of a papillary dermatitis or a hyperkeratotic granuloma is offered.

We have found that the main root-stems are seldom located beneath a patch. To this more than to anything else we attribute the many failures, our own included, in the eradication of this lesion. In the metatarsal area the common stem originates deeply, generally anterior to the patch, its numerous bifurcations trailing backward and ending superficially in a patch, formed by fusion of individual warty bodies capping the papillary fibrils.

Lesions of verruca plana type may be found on other parts of the body.

The mosaic wart differs from the ordinary compound plantar wart in having an irregular border, spreading over large areas, in being invariably dry, painless,

fibers in both that somatic peripheral and the sympathetic nervous systems. It is possible that ordinary pain is transmitted only in this way but when the pain stimulus is extreme, undoubtedly all the sensory nerve fibers participate in its transmission.

When a pain stimulus has passed along the peripheral nerve and has reached the spinal cord by way of the posterior nerve roots, immediately a neurological elaboration of the stimulus begins to take place. In the gelatinous substance of Rolando at the extremities of the posterior horns is a complicated system of short neurones whose function is the handling of pain transmission. As the stimulus passes from one neurone to another it is likely that a change takes place in its characteristics.

The first response to pain occurs at this point. An association fiber arising here may carry the impulse to the motor cells of the anterior horn which results in the withdrawal of the injured part from the source of pain. Such a reaction being purposeful has in it some of the characteristics of the psychological.

The primary central pain tract system arises from cells in the posterior horn and these fibers ascend one or two segments before they cross the cord to the opposite side to form the lateral spinothalamic tracts which lie on the surface of the lateral white columns, where they pass upward to terminate in the medial thalamic nuclei. Here according to Strong³ the pathways undergo a thalamic diffusion and the pain sensations are carried up to the cerebral cortex by thalamocortical neurones whose anatomy is not clearly known.

Pain may be produced by stimulation or irritation at any point along the course of the pain conduction pathways. It matters not where the site of the irritation may be, the resulting sensation of pain is always felt out at the periphery where lies the sensory end organ from which the affected fiber has been wont to receive painful stimuli.

In the clinical observation of pain one may observe various pain manifestations which indicate quite clearly the separate functionings of this complicated pathway. When pain of considerable degree is inflicted on a subject, a definite sequence

of pain phenomena may be seen, each one of which implies the action of a different part of the pain pathway. When pain is great the whole occurs so quickly that no differentiation is possible. When on the other hand pain is produced more slowly the action of the various anatomical parts may be, at least in part, identified. When one stimulates slightly a painful area, such as a localized abscess or a broken bone or even pushes a pin slowly into the skin anywhere, the first reaction seen is one of withdrawal to pull the tender area away from the irritation. This is, in the main, a spinal cord reaction in the nature of a reflex, quick and unthinking but so powerful in its urge as to require great mental concentration and what is known as will power to keep it from occurring. One sees this reaction with its great speed occurring below the level of spinal cord tumors and transverse myelitis which have destroyed the spinal cord tracts so that no conscious sensation of pain can be perceived and no motion of the limb is possible.

The next level of pain expression in the intact nervous system is the thalamic which is one of feeling tone, of displeasure, of discomfort, of pain. When we speak ordinarily of pain we mean most often this thalamic part and those reactions which have their seat of origin here. It is here that those bodily changes, of which Cannon has written, have their origin. It is here that pain is really felt. One of the most accurate indicators of thalamic action is that great motor mechanism of feeling expression—the facial musculature. In states of moderate pain one sees first a slight contraction of the orbicularis palpebrae, contracting and puckering the eyelids especially at the outer angle. Then follows a dilation of the pupil and a contraction of all the facial muscles in a grimace of pain with a quick, gasping intake of the breath. As a rule the thalamic follows the spinal cord reaction very rapidly while frequently there is a definite wait before the cortical reaction is seen. This is the psychic reaction—a matter of perception, of ideas, of relative values, of language, not only of words but of rhetoric as well—simile and metaphor not to mention hyperbole. These reactions run all the way from simple grunts, cries, and other

PSYCHIC FACTORS IN PAIN

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Pain is as old as animal life. The sensory equipment of even the most primitive forms of animal life contains something that is at least the prototype of pain. Even the protozoa respond differently to stimuli emanating from sources valuable to the animal—food, etc.—than to those which may be dangerous or even destructive to life. To these latter stimuli the animal reacts by avoidance or flight just as do the higher organisms to what we know as pain.

One does not define pain or even attempt to classify it for pain belongs to the category of experiences which occur far below the verbal level in psychic life. It is likely that pain and pain reactions comprise the most primitive psychology. Pain consists of a group of sensations, impressions, and reactions which have as their purpose the preservation of the organism. Since such a function has to do with the future as well as with the past (memory), one can see how close it comes to that which in highest forms is known as mental activity.

When Dr. Cannon,¹ twenty years ago, brought together the results of his researches he named his book "Bodily Changes in Pain, Hunger, Fear and Rage." All these he grouped together because those bodily changes of which he wrote—blood chemistry, metabolism, and organ function—are strikingly similar under each of the conditions that made up his title. All four were definitely psychological for each one similarly affected the relationship between the animal and his environment especially in so far as this relationship bears on the instinct of self preservation.

One has but to look at the anatomy of the sensory pathways in vertebrates to note how early pain sensation and its close relative temperature sensation manifested their highly specialized nature and differentiated themselves from other forms of sensation. One of the most striking anatomical characteristics of highly specialized nerve tract systems

is their tendency to cross from one side to the other to reach a termination on the opposite side of the nervous system from that on which they arise. This is especially true of those fiber systems that go to and come from the forebrain. One gets the impression that these fiber systems whose functions have a psychological import must cross to the opposite side of the central nervous system as a part of the process of attaining such psychological import. If this be true—and what evidence we have would seem to point that way—then one would be justified in considering pain and temperature sensations the most primitive psychology for they are the only ones that complete their crossing in the spinal cord long before the brain is reached.

Pain arises as a result of the stimulation of the pain conveying nerve tract. There is still some doubt whether there are special nerve endings for the reception of pain stimuli and special nerve fibers for its transmission to the central nervous system. Free nerve endings probably can transmit nothing but pain. They are the only ones to be found in the cornea, the ear-drum, and the pulp of the teeth. Even the slightest stimulation of these areas can produce no other sensation than pain. However it is most likely that all other sensory end organs are capable of transmitting pain when the stimulus is great enough. Extremely intense light transmitted by the optic end organs and equally intense sounds transmitted by the cochlear apparatus result in pain sensations in the consciousness as well as light and sound. Whether pain from the somatic nervous system and the involuntary nervous system may not at times be similar in its peripheral causation is well within the realm of possibility.

A similar doubt exists as to whether there are in the peripheral nervous system special nerve fibers which can carry only pain. It is possible that this is the function of the nonmyelinated sensory nerve

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester, May 25, 1937*

My only personal experience with extreme pain was the occasion of the passing of a kidney stone nearly fifteen years ago. The pain of ureteral colic is one of considerable intensity. According to the evidence of those who have experienced both, the pain of ureteral colic is more intense and severe than are labor pains. A few months after the experience I was able, in a lecture to undergraduates, to give what I thought was a good description of that pain but the following year I found I was unable to repeat that lecture, nor have I ever been able to do so since. However, I am confident that, like the patient mentioned above, I should recognize the pain at once if I should ever again experience ureteral colic.

What I have tried to show by this digression is that pain memories and pain descriptions are at best extremely inaccurate things. Psychic pain is made up much less of pain memories than of ideas of pain. To the patient psychic pain appears quite real at times but it lacks the anatomical and physiological characteristics of pain of organic origin. It is a matter of pain belief, pain idea, and pain delusion, not plain pain as we know it. It is the product of psychic activity and consists only of the cortical part of pain with the spinal cord and the thalamic components entirely absent. It consists of pain description and pain elaboration without the concomitant, tell-tale, thalamic pain symptoms that give the stamp of reality to organic pain.

Again psychic pain is likely to be unphysiological and unanatomical in that the pain picture does not correspond to known anatomy and physiology. Thus psychic face pain may often be differentiated from the pain of trifacial neuralgia by a study of the area affected. The pain of trifacial neuralgia has an exquisitely accurate anatomical localization. When one asks the patient to indicate the painful area he does so usually by outlining with the tip of one finger one or more of the areas of the trifacial nerve. The line he draws outlines an area as accurate as an anatomical chart. It goes to the midline but never beyond nor does it extend over into the sensory areas of the other branches or of other nerves. In psychic face pain on the other hand the area indicated is usually inaccurate in the

extreme. When asked to show the painful area the patient does not use one finger tip to outline an area. Rather he usually places his whole hand over an area which, in many instances, takes in parts of both sides of the face and also cutaneous areas supplied by cervical nerves only.

Again the description of the pain is often of great diagnostic importance. The pain of trifacial neuralgia defies description. It is pain and nothing else. There may be accompanying gestures in the form of thalamic facial expressions but words do not exist to cope with these thalamic memories which occur so far below the verbal level of psychic life. Reproductions of these pain memories

Psychic pain on the other hand consists almost entirely of language—adjectives and not infrequently adverbs—as well as simile, metaphor and hyperbole. Recently I saw a woman who was suffering from a pain in her face, gums, and neck following the removal of an upper tooth some ten years previously. She talked quite volubly of the pain without evidencing the slightest facial expression. Most of her talk consisted of adjective used in the superlative. Often she spoke of her sensation as pressure, as though pressure and pain were synonymous. When her attention was called to the fact that pressure and pain are not the same thing and that pressure may be an intense different or even a pleasurable sensation she was much confused and had difficulty in continuing her description once her language concepts had been disturbed.

It is a difficult matter to classify psychic pain just as it is difficult to classify any other psychic manifestation. The more one tries to be definite the greater risk one runs of being inaccurate. Clinical psychic states, in spite of their reality, are tough things to try to define and to delimit. They run with insensible gradations from the simple psychoneuroses through the hysterias and compulsions up to the frank psychoses. Psychic pain may appear as a symptom manifestation at any and all of these many levels. The less well-organized the neurotic state the less well-organized the psychic pain symptom. At the risk of being inac-

unformed pain sounds up to elaborate description. It is at the psychic or cortical level that pain is understood, so well as it can be understood, localized, compared, and talked about.

One can see from this review of the anatomy and physiology of the pain pathways that spontaneous pain may be occasioned by irritating lesions occurring at different points along the pathways. One may speak thus of peripheral pain, neural pain, ganglion pain, spinal cord pain, and thalamic pain. Peripheral pain results from local traumatic or inflammatory lesions, neural pain from neuritis and peripheral nerve tumors, spinal cord pain from cord tumors and syringomyelia, and thalamic pain from destructive and irritating lesions involving the median nuclei of the thalamus. The latter is seen especially in the so-called thalamic syndrome of Dejerme² and Roussy. This syndrome which is caused by lesions involving the thalamus anterior to the pulvinar, an area which includes the median thalamic nucleus, consists of severe, constant, intractable, subjective pain in one-half the body with complete anesthesia to objective pain on the painful side. This painful analgesia can mean only destruction of the pain conducting mechanism at its thalamic level with a constant stimulation of those fiber systems which carry the pain sensation to the cortex and the consciousness.

Above the thalamus there are no known organic lesions which cause subjective pain. The cerebral cortex itself is insensitive to pain. However stimulation of the motor cortex may occasion subjective pain in the part represented by the cortical area stimulated. I once observed the removal, under local anesthesia, of a cortical meningioma which was adherent to the motor area of the foot. When this adhesion was pulled, the patient immediately complained of severe pain in the foot of the opposite side of the body. It is possible then there exists pain localization in the cortex but most likely these are so bound up with other forms of sensation, of motion, of sensory and motor memories that pain itself cannot be separated off as an isolated function as can be done lower down in the nervous system. Cortical pain is not pain as we know it in the rest of the nervous system. It is

not a matter of lesions involving nerve tract systems, but rather a matter of pain memories, pain ideas, pain beliefs, and pain delusions. It is psychic pain which one must evaluate in terms of psychology rather than in terms of anatomy and physiology. Psychic pain may be real enough in the consciousness without any basis in nervous system pathology.

To evaluate psychic pain one must first speculate on what pain means to the individual. To some Spartan individuals there is no pain except great pain. To others, such as the hypersensitive neurotics, even moderate discomfort is called pain, often with qualifying adjectives such as "terrible," "terrific" or "intolerable." Pain is such a primitive psychological factor and so much of its functioning is confined to the lower parts of the nervous system that it is not well-organized in the psyche. Most of us have difficulty in describing the pains that we feel. Most of us just call it pain and let it go at that. We may offer comparisons such as "like a tooth-ache" but usually the language of pain is very meager. The neurotic has a more elaborate language of pain but usually this is rather barren except for hyperbole. The rapidity with which pain memories disappear from the consciousness is also indicative of the poor psychic organization of pain.

Pain memories do however persist more or less unconsciously for a considerable period of time but they do not persist in the form of words. They persist in the form of feelings which may be recognized with great accuracy many years afterwards although they may not be accessible to description in terms of language. Nearly twenty years ago Dr. Tilney and I⁴ reported this form of pain memory in a case of hemorrhage into the basal cisterns. The patient, the wife of a physician, a highly intellectual woman, suffered a severe pain in her head after having run up a flight of stairs. Before she became unconscious she told her husband that she knew she was having a brain hemorrhage because the pain in her head was so similar to that experienced at the time of her abdominal hemorrhage due to the rupture of an ectopic gestation some years before. Autopsy revealed an extensive subpial hemorrhage located mostly in the basal cisterns.

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curate one might divide psychic pain into three categories

- 1 Pain belief,
- 2 Pain idea,
- 3 Pain delusion

Pain belief is a simple thing and often it does not exist outside the field of attention. It has little effect on the fundamental personality and usually is not constantly incapacitating. A woman came in to the clinic complaining that her face twisted upon the right side and pained her "something dreadful." She was suffering from a left sided facial palsy. When she was placed in front of a mirror and was shown that the right side of her face was all right but the left was diseased the pain immediately disappeared from the right side of her face. When she was seen later the pain had returned, this time on the left side.

Pain idea is a more organized thing than pain belief. It occupies much more of the psychic life and has its roots much deeper in the personality. It may exist outside the field of attention. A clinic patient had for years been seeking relief for pain over one eye. It had bothered him quite a bit and fairly constantly enough to make him seek medical relief occasionally but not enough to interfere materially with his daily routine of life. The history was that one night some years ago he had dreamed that a cat bit him over the eye and ever since then he had had pain where the cat bit him. The limitations of clinic practice did not make it possible to find out what this symptom really meant before the patient disappeared from the clinic, possibly to seek the aid of doctors more in sympathy with his pain idea.

Pain delusion is a much more stubborn thing. It is a definite integral part of the patient's personality. It may even become the ruling motive of his life. Often he seems to live only for the pain, and all of his life routine is adjusted in respect to its affect upon the pain. This is intractable pain real and vital to the patient but unfortunately it is not susceptible to relief by surgical therapy nor, for that matter, by psychotherapy either. Often these patients closely simulate the paranoiacs.

A delusion is a false idea and accord-

ing to White⁵ a delusion has certain characteristics (1) It is obviously not true to facts, (2) It is out of keeping with the patient's education and intelligence, (3) It is not correctable by any appeal to reason. Pain delusion satisfies all of these characteristics and especially the latter. It may persist for years and may so occupy the patient's entire attention that he appears to be very little else besides a pain and a voice.

Pain delusion appears not frequently in the face and the mouth. In the latter location it is seen following extraction of teeth and the fitting of artificial dentures. In these cases we frequently see the burning tongue which does not appear to be amenable to any form of therapy and may last for years. The diagnosis is never easy. These patients have such firm belief in the reality of their pain that not infrequently they present a very good and consistent clinical picture. The longer one knows the patient however the more one is impressed with the stubborn, ingrown personality, that lies in the background. As a rule it takes a very definite kind of person to harbor a pain delusion and this type of personality very closely approaches that of the paranoiac.

I have talked to you at length about psychic pain touching here and there on the high spots of the subject. Some of these pains are fleeting and inconsistent while others of them are a definite part of the patient's personality. The more superficial of them are remediable by means of psychotherapy even of such simple form as suggestion. The more severe are truly intractable and since they are frequently made worse by surgical procedures which are so efficacious in organic pain, their recognition is of utmost importance where surgical intervention may be considered.

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References

- 1 Cannon W. B. *Bodily Changes in Pain, Hunger, Fear and Rage*, 1915
- 2 Dejerine, J. *Semilogie des Affections du Systeme Nerveux*, 1914
- 3 Strong O. S. Chapter—The Nervous System in *Bailey's Text Book of Histology* 1925
- 4 Tilney F. and Casamajor, L. *Neurological Bulletin* 1:161, 1918
- 5 White, Wm. A. *Outline of Psychiatry*

THE ACID FACTOR IN PEPTIC ULCER

With Special Reference to Milk Drip Therapy and Partial Gastrectomy

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There exists a general impression, probably founded in fact, that the incidence of peptic ulcer is increasing. This may be due to a general increase in the so-called "diseases of civilization" which include not only peptic ulcer but essential hypertension, arteriosclerosis, exophthalmic goiter, and disease of the coronary arteries. Perhaps a review of some recent theories of the cause of ulcer will throw new light on this phase of the subject.

Three theories will be briefly discussed, (1) the psychogenic, (2) the ductless glandular, and (3) the inflammatory

Psychogenic

Recently Leonard Rothschild completed a psychoanalytic study of thirty-two consecutive patients with duodenal ulcer in the Gastro-Intestinal Clinic at Mount Sinai Hospital. He found that they all gave evidence of a profound neurosis usually of a definite type. They were an aggressive, Sadistic type who were chronically frustrated emotionally. These repressed emotions seemed actually to cause the patients "to eat themselves up inwardly." Moschowitz described ulcer patients as highly irritable, commonly "swallowing their anger," with resultant gastric symptoms. Cushing concluded, "So it may easily be seen that highly strung persons through repressed emotions incidental to continued worry are prone to the hyperacidity often leading to ulcer." While a direct casual relationship has not as yet been established there should be no doubt as to the importance of psychic factors in peptic ulcer.

The Ductless Glandular Factor

Peptic ulcer is predominantly a male disease. It is approximately twelve times as frequent in males. No student of the ulcer problem should neglect this strik-

ingly unequal sex incidence. Recently, in some experimental work with gastric fundus pouches in dogs, I found that during estrus the abdominal wall erosions about the pouch orifices healed and the acid secretion from the pouches diminished. During lactation, the contrary occurred—the erosions enlarged while the pouch secretion increased. These preliminary observations suggest the possibility of a relationship, particularly of the anterior pituitary gland, to gastric secretion and to peptic ulceration. Further investigations along these lines are now in progress.

The Inflammatory Factor

Since the extensive use of partial gastrectomy for peptic ulcer in this country chiefly by A. A. Berg, a splendid opportunity for studying the histopathology of the gastric mucosa has presented itself. Practically all of the resected stomachs show a varying degree of a specific type of gastritis and duodenitis. This lesion, described extensively by Konjetzny, Puhl, and Buechner in Germany, and Aschner and Grossman in this country, reveals the following characteristics:

1 It is located chiefly in the antrum and duodenum.

2 It is erosive (erosions and acute ulcers) and infiltrative (polynuclears and round cells).

3 In general, it corresponds neither with the state of the ulcer itself nor with the degree of pyloric obstruction.

The cause of this lesion is as yet unknown. At present we are studying the following possibilities: dietetic errors, alcohol, tobacco, focal and general infections, allergy, and "the acid-pepsin plus spasm" factor. This gastritis and duodenitis probably has a great significance. It is possible that this type of lesion may

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be the precursor of the ulcer disease. Furthermore, patients with symptoms of ulcer in whom ulcer is not found frequently display this specific type of erosive gastritis and duodenitis. This also should prove a fertile field for thorough investigation.

It is necessary to point out that the foregoing discussion has dealt only with some of the ultimate causes of ulcer. We will next turn our attention to the mechanism through which these causes operate to produce the lesion itself. In recent years this phase of the problem has been greatly clarified. For, all the experimental and clinical data as well as the theoretic considerations are in agreement that the following three factors are most important: (1) the mechanical, irritant, or, exogenous factor, (2) the "acid-pepsin" or "acid" factor, and (3) the factor of tissue resistance. Briefly, some evidence for the irritant factor is the high incidence of ulcer among the Abyssinians who eat mostly meat impregnated with Cayenne pepper and the high incidence among the inhabitants of India who eat hot curries. Speaking strongly for the acid-pepsin factors are the numerous animal experiments of Exalto, Mann, Ivy, and Dragstedt wherein typical chronic peptic ulcer is produced almost constantly after various anastomoses which exclude the alkaline duodenal juices (duodenoileostomy plus gastrojejunostomy, or, Pawlow pouch-ileostomy experiments). The evidence for the tissue resistance factor is less impressive but it seems quite probable that the specific tissue itself possesses protecting factors (mucin? vascularity? antiferments?).

In our clinic at Mount Sinai Hospital, we have devoted ourselves for many years to an intensive study of what seems to us the most important factor in the ulcer problem, viz, the so-called "acid" factor. We believe it to be of fundamental importance in the mechanism of ulcer formation and certainly in its medical and surgical treatment. We have been impressed by the following points:

1 Peptic ulcer (esophageal, gastric, duodenal, jejunal, Meckel's diverticulum) commences and occurs invariably in an acid medium.

2 Using a combined "histamine-neutral red-food" fractional test meal, we have been

able to confirm the dictum "no free acid, no ulcer."

3 The best results are seen with the medical cures based on acid neutralization (Sippy and "milk-drip") and with partial gastrectomy (especially in gastric ulcer where there is practically always a post-operative achlorhydria without ulcer recurrences).

Our studies of the acidity factor have led us to a new ulcer therapy. It is my purpose to outline it briefly and then later to present some studies in gastric secretion in relation to the surgical problem.

With reference to the therapeutic approach, we might propose as an axiom that "whatever measures will produce a chronic, harmless achlorhydria will benefit peptic ulcer." Unfortunately, because of the complexity of the mechanism of gastric secretion, this is a very difficult, if not an impossible task to accomplish medically. Surgically, partial or subtotal gastrectomy is the most successful method for reduction of gastric acidity. However, when we consider the magnitude of this operation, it does not seem proper to advocate surgical therapy for every chronic ulcer. And, admittedly, a fair per cent of ulcers heal and remain healed with an adequate medical therapy. We have already indicated what we consider an adequate medical therapy, viz, one in which the gastric secretion is greatly reduced. The Sippy treatment, which has as its ideal a constant neutralization, does not accomplish this aim.

We recently completed and published a study of the gastric secretion in 169 patients during the longest interdigestive period, viz, the night. In this study we confirmed our earlier findings, already published in 1930. We found that ulcer patients have a large amount of strongly acid secretion throughout the night. Normals on the other hand have little or no free acid in their stomachs during the night. Inasmuch as these nocturnal acidity curves were obtained while the patients were on the Sippy treatment, it is obvious that that method fails to accomplish what we consider the desirable state in ulcer therapy, viz, a constant neutralization of the acidity throughout the twenty-four hours of the day. All attempts to control the nocturnal hypersecre-

tion of ulcer patients with aspiration, alkali, olive-oil, and atropine failed. Because of this we have invented and instituted the following treatment for peptic ulcer.

A Rehfluss or a thin Levin tube, preferably through the mouth, is passed into the stomach of the patient and connected by a long piece of rubber tubing to a gravity flask (or an enamel or aluminum quart can) and a Murphy drip screw and indicator are interposed in the system. Milk (with or without a teaspoonful of bicarbonate of soda to the quart) is permitted to drip into the stomach at the rate of thirty-forty drops per minute—the patient receiving in all, three quarts of milk a day.

This provides adequate nutrition, fluid, and constant neutralization. Actually, many samples, aspirated during the day and night showed a negative test for free acid and a low total acidity. In patients with severe ulcer symptoms, we like to keep the tube in the stomach two or three weeks continually day and night. Thereafter we continue the drip at night for several more weeks. During the day the conventional ulcer therapy (third or fourth week of the Sippy cure) is used. In patients with milder symptoms, the milk drip during the night only seems sufficient. The method is definitely practical. We have been surprised at the willingness of very nervous individuals to take and continue the drip (this indicates a probable psychic factor). They learn quickly the details of the treatment, and in many instances, have continued the nocturnal therapy themselves for months, and even years, in several instances.

We have been impressed by these features: (1) The symptoms disappear usually in four to five hours, (2) The relief of symptoms in patients previously refractory to the Sippy, mucin, or injection forms of treatment, (3) The lowered acid curve, improvement in radiographic signs, and the excellent subsequent course in most of the patients thus treated. We are now collecting the results in some hundreds of ulcer patients who have received the milk drip treatment.

The studies in gastric acidity were continued in relation to the surgical problem. We believe that the basis of the surgical treatment of ulcer is not only the removal of the lesion itself but also the removal of the associated gastritis and duodenitis

together with a procedure which gives a resultant optimal motor activity. But, above all, the operation must reduce or abolish the free hydrochloric acid to prevent recurrent ulceration. Because of these fundamental principles we consider partial gastrectomy as the operation of choice. This has been carried out by Berg in more than 600 cases of gastric, duodenal, and gastrojejunal ulcer in the past fifteen years.

In an analysis of the preoperative gastric secretion of 122 ulcer patients, (Table I) it was found that (1) the acidity is high in duodenal ulcer and (2) in gastric ulcer the acid curve is low or normal. Postoperatively, the patients with duodenal ulcer had free acid in forty-five per cent of the cases studied and achlorhydria in the remaining fifty-five per cent. Gastric ulcer patients, on the other hand, have practically invariably a postoperative achlorhydria. In view of the important fact that we have never encountered a recurrent ulcer after partial gastrectomy in a patient with achlorhydria, the explanation of this striking difference in the pre- and especially in the postoperative acidity in duodenal and gastric ulcer patients may prove of great practical significance. We have, therefore, carried out certain investigations in these two groups of cases.

These studies were based on the following physiologic considerations. It is now generally accepted by physiologists (Babkin, Ivy) that gastric secretion is produced chiefly in two ways, *first*, cephalic or psychico-reflex phase is nervous and mediated through the vagus nerve, *second*, chemical, or, hormonal phase is chemical and depends on the absorption of secretagogues or hormones through the antrum of the stomach and their action after access to the blood stream on the secreting gland cells (Table II). (We do not regard the intestinal phase as a very important exciter normally.) Because of the fact that in partial gastrectomy the antrum or chemical phase is removed and the vagus nerve supply together with the gland cells is left intact, it seems necessary to study the two phases of gastric secretion separately. Without going into the details of these experiments we may state that, using the chewing of an orange to produce the first or nervous phase of

TABLE I—CURVE OF FREE HYDROCHLORIC ACID IN GASTRIC AND DUODENAL ULCER BEFORE AND AFTER PARTIAL GASTRECTOMY

	Hyper-acidity %	Normal %	Low %
Preoperative			
Duodenal ulcer (eighty-five cases)	80	10	10
Gastric ulcer (thirty-seven cases)	9	33	58
	Free Hydrochloric Acid		
	Present %	Absent %	
Postoperative			
Duodenal ulcer (eighty-five cases)	45	55	
Gastric ulcer (thirty seven cases)	11	88	

TABLE II—PHASES OF GASTRIC SECRETION

Primary — cephalic Vagus	Phasic	{ Sight Odor Taste
	Reflex	
	Continuous Hormone	
Secondary — gastric Chemical (antrum)	Chemical	{ Secretagogues
Intestinal Hormone or secretagogues	Hormone or secretagogues	

TABLE III—ACHLORHYDRIA AFTER PARTIAL GASTRECTOMY FOR GASTRIC AND DUODENAL ULCER

Disease	Number of cases	3-hour gruel Reflux test meal	Number of cases	3-hour gruel test meal plus histamine and neutral red	
		Free HCl		Free HCl	Dye
Gastric ulcer	17	0	16	0	0
			1	+	+
Duodenal ulcer	31	0	18	+	+
			13	0	0
Incidence of true achlorhydria in the achlorhydrias after partial gastrectomy					
Gastric ulcer					%
Duodenal ulcer					95
					42

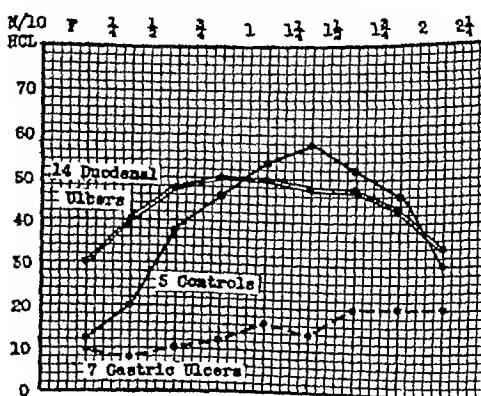
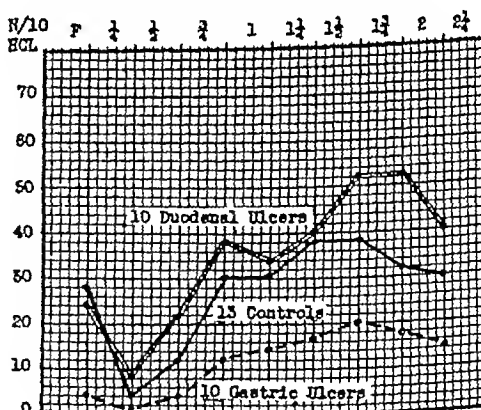
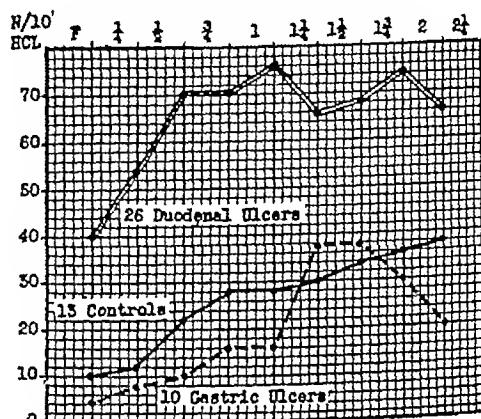
gastric secretion, and bouillon and histamine (which act directly on the gland cells without nerve intervention) to evoke the second or chemical phase, we found that (1) the nervous phase of gastric secretion is high in duodenal ulcer and low or normal in gastric ulcer and (2) the chemical phase of gastric secretion is normal in duodenal ulcer and definitely quite low in gastric ulcer (Chart I).

Since the response to the chemical stimulus depends on the state of the gland cell itself, it is apparent that the glands in gastric ulcer are inhibited, probably

by gastritis. We say that because the histologic studies of our resected stomachs do indeed show that the specific ulcerative type of gastritis does affect the gland cells more in gastric than in duodenal ulcer (Aschner and Grossman).

CHART IA—COMPOSITE CURVES OF FREE HYDROCHLORIC ACID—VAGUS CURVES

B—COMPOSITE CURVES OF FREE HYDROCHLORIC ACID—"CHEMICAL CURVES"

C—COMPOSITE CURVES OF FREE HYDROCHLORIC ACID—USING HISTAMINE MGM $\frac{1}{2}$ 

PEPTIC ULCER

December 1, 1937]

This at once gives us a clue to the almost universal postoperative achlorhydria in gastric ulcer. To investigate our idea, all the postoperative achlorhydria cases, both duodenal and gastric ulcer, were tested with histamine and neutral red (since both act directly through the gland cell itself). We found that (1) in half of the duodenal ulcer patients, the achlorhydria was apparent or false (probably neutralization by regurgitation), (2) in gastric ulcer practically all the achlorhydrias were true ones (inhibition of the gland cells) (Table III).

We may now take stock of the significance of these studies. It is apparent again that the acid factor needs strong emphasis. In duodenal ulcer, one should attack the vagus or nervous phase in order to increase the percentage of postoperative achlorhydrias. At the suggestion of the late Dr Eugene Klem, Dr A. A. Berg added subphrenic anterior vagotomy to the partial gastrectomy in twenty-four duodenal ulcer patients who had high preoperative acidity. Nineteen were observed for several years. They all felt well and sixteen (85%) developed an achlorhydria. Duodenal ulcer patients with a high preoperative acidity with partial gastrectomy without vagotomy reveal a postoperative achlorhydria only in 20% of the cases. I have also advocated as an experiment, high subphrenic anterior vagotomy plus gastroenterostomy in the surgical treatment of some cases of duodenal ulcer (a few patients thus treated have done well).

Finally, it is obvious that the duodenitis and the gastritis herein described is assuming an important role in the ulcer problem. It is probably important in (1) the localization of the lesion, (2) possibly causing the lesion, (3) increasing the acidity in duodenal ulcer and decreasing it in gastric ulcer, (4) by decreasing the acidity postoperatively, especially in gastric ulcer, it prevents recurrent ulceration. Whatever its nature—irritant, bacterial-toxic, neurotrophic, acid-peptic, or

allergic—it seems of primary importance in the ulcer problem and deserves further investigation.

Summary

1 The psychogenic, endocrine, and inflammatory theories of the cause of ulcer are briefly discussed.

2 Of the three factors involved in the mechanism of ulcer production, the "acid factor" seems of greatest importance and is chosen for presentation.

3 Chiefly because of the failure of previous medical methods to achieve a continuous neutralization of the gastric acidity throughout the twenty-four hours of the day, a new form of therapy "the continuous intragastric milk drip" is proposed and described. It is practical and the results in a large series of ulcer patients have been good.

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6 Partial gastrectomy produces a true achlorhydria in practically all gastric ulcer patients. Recurrent jejunal ulceration has not been seen when there is a postoperative achlorhydria in any ulcer patient.

7 Duodenal ulcer patients have a neutralization achlorhydria in fifty-five per cent of the cases. Recurrent ulceration has been seen in a small number (3%) of the cases with free hydrochloric acid postoperatively.

8 Subphrenic vagotomy plus partial gastrectomy in duodenal ulcer patients with a high preoperative acid curve leads to achlorhydria (Klem). Subphrenic vagotomy plus gastroenterostomy seems worthy of a trial in some cases of duodenal ulcer.

9 The significance of erosive gastritis and duodenitis in the ulcer problem is stressed.

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Discussion

DR. H. WALDEN RETAN, *Syracuse*—So far, in the study of peptic ulcer etiology, no adequate theory has been developed which includes all the factors obviously present

All discussions of the etiology of this disease rest finally on the erosion of tissue, the blood supply of which has been interfered with by some means. If a terminal vessel

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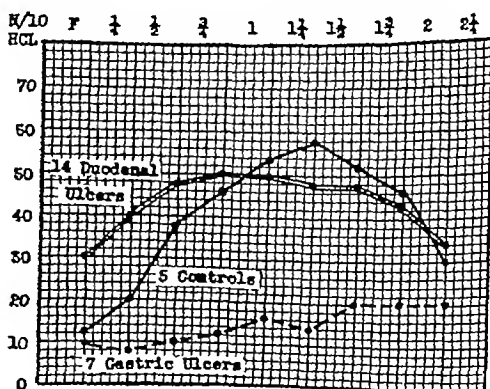
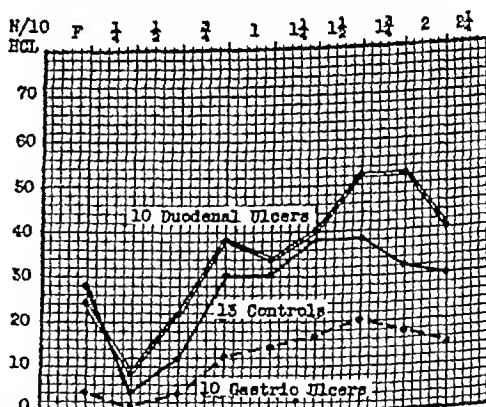
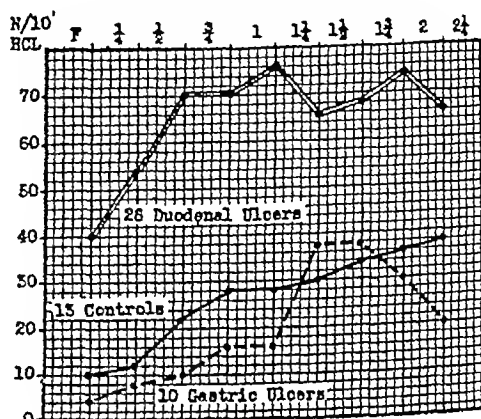
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electrical or mechanical construction, and carefully controlled clinical evidence relative to its therapeutic efficacy

At the same time, the manufacturer is asked to submit twenty copies of all the advertising matter, descriptive literature, labels, pamphlets, form letters, and a unit of the apparatus to be considered as it is supplied to the trade. The information obtained from the submitted material is collected at the headquarters office and turned over to the members of the Council through the aforementioned bimonthly bulletin. Advertising of similar accepted products is compared with the advertising under question, and then the Council checks it independently.

For each submitted product a member of the Council acts as referee for all the assembled material which is sent to him for his criticism. He presents a report to the Council on the efficacy of the product and the consequent acceptability or nonacceptability of the claims made for it. He reports the existence of any conflict with the Council's rules. He may and frequently does secure the services of a consultant not associated with the Council or in any way interested in the product or the manufacturer. The burden of proof for the physical and therapeutic efficacy of a device rests on the manufacturer. He is expected to engage the best technical assistance available to determine and present the evidence for the submitted product. The Council, when necessary, makes its own investigations.

In certain instances the submitted product, with evidence and advertising matter, may be referred to one of the standing committees of the Council for investigation and report, especially if a new principle is involved.

The referee's report is in turn presented to the Council members through the bulletin. In two weeks the report is discussed, and two weeks later a vote is taken, all by mail. A three-fourths majority vote is required for acceptance or rejection of a product.

In many cases, the product is not definitely accepted on the first report, but the manufacturer is informed that the product will be accepted when certain requirements are fulfilled or if certain evidence can be submitted, provided the

product is of an acceptable type, that is, has a place in physical therapy.

If the product is not accepted, a statement is drawn up for publication, which the Council adopts and sends to the manufacturer before publication. Quite frequently the manufacturer will ask that the statement be withheld from publication and agrees not to promote the product while he investigates it further. The Council grants many such requests.

The Council reserves the right to investigate products on its own initiative even though the manufacturer does not make application. In such cases, the statement of the Council which is authorized for publication is not sent to the manufacturer in advance of publication unless the Council for some reason, makes an exception to its ruling.

The Council on Physical Therapy was established primarily for the benefit of the medical profession and indirectly for the benefit of the public. Hence, it does not seem out of place to suggest here that the members of the Council have a right to ask for the support of the profession. They are working absolutely without pay. It is reasonable to feel that physicians believe the movement a good one, deserving all the support the profession can give it. The members of the profession can facilitate the work of the Council by

1. Securing a list of accepted apparatus* from the Secretary of the Council and giving preference to these devices when purchasing equipment,

2. Inquiring of manufacturers whether their products have been submitted to the Council and if submitted and refused recognition, why? If not submitted, why not?

3. Asking salesmen who call if the apparatus has been presented to the Council and accepted and, if not, explaining that no more time can be given to his product until this has been done,

4. Examining the advertising pages of the medical journals, which are supported by the profession, and, if nonaccepted products are advertised, inquire why?

535 No DEARBORN ST

*Upon request to the Secretary of the Council on Physical Therapy, 535 No Dearborn St., Chicago, booklet will be sent free of charge.

THE DUODENUM

Roentgenologically Considered and Including One Case of Primary Carcinoma

WILLIAM E. HOWES, M.D., *Brooklyn*

Radiation Therapist and Clinical Director, Brooklyn Cancer Institute

The duodenum is a proportionately short, relatively fixed segment of the small intestine. It takes its name from the fact that its total length is not over the breadth of twelve fingers¹ namely, about twenty-five cm and with its diameter approximately four cm. It lies mostly retroperitoneal and its course can be theoretically visualized as that of a capital "C"².

Dr. Golden, in his text,³ divides the duodenum into three portions.

The first portion, the bulbous duodenum (duodenal cap), begins at the distal end of the pyloric channel and passes upward and slightly to the right, less often to the left, where it turns backward. It usually overlies the right margin of the spinal column. The second portion, the descending limb, just below its junction with the first portion, plunges behind the peritoneum and passes downward a variable distance along the right margin of the spinal column, often curving slightly to the right. The third portion turns to the left, forward and usually slightly upward, crosses the spine, and then continues upward and to the left a variable distance, turning to the left and forward at the ligament of Treitz to join the jejunum.

The relationship of the duodenum to the surrounding structures² is as follows:

Superiorly it is in contact with liver (quadrate lobe) and the neck of the gall bladder and forms the lower boundary of the epiploic foramen, anteriorly with the liver and (often) the transverse colon, inferiorly and posteriorly with the head of the pancreas below, and with the common bile duct, hepatic vessels and portal vein above.

The bile and pancreatic secretions enter the descending duodenum at the ampulla of Vater on its mesal wall in about the middle third.

Physiology

Much of the function of the duodenum

was understood before the advent of gastrointestinal roentgenography. On the other hand, the direct visualization of the duodenal contents under the fluoroscope and on the x-ray films has done much to clarify this knowledge. The duodenal cap fills gradually to its capacity and then empties rapidly, the emptying often in rhythm with each second or third gastric peristaltic wave, which reach and open the pyloric sphincter. The opaque meal then passes through the descending and horizontal segments in a relatively rapid progression, being divided by imprints of the mucosal folds into a feathery consistency.

Pathology

In spite of the shortness of the duodenum, its relatively protected position, and the rather transient part it plays in the digestion of food, it is possibly subject to as frequent and as varied a number of lesions as are seen in any other intestinal segment.

Its relationship with the stomach, colon, gall-bladder, liver, pancreas, and retroperitoneal lymphatics, all make it vulnerable both to involvement and pressure defect from enlargement of these neighboring organs, and to extension of new growth originating in these structures.

Sante⁴ catalogues deformities of the duodenum under (1) ulcer, (2) adhesions, (3) tumors, (4) diverticulum, (5) pressure defect on both bulb due to gall-bladder, and (6) obstruction.

In this paper an attempt is made to depict these deformities, giving a short synopsis of the findings with case reports, x-rays, and pathological sections.

Ulcer. We are all familiar with the ragged spastic duodenal bulb, its spasm so great and its filling so transient that no ulcer niche is visualized (Fig 1).

Read at the Annual Meeting of the Medical Society of the State of New York, Rochester, May 25, 1937

The usual deformity of the bulb originally demonstrated by Cole⁵ may be due to contracture of the circular muscle fibers or a niche defect.

Besides the possibility of hemorrhage there is the second danger of perforation and resultant peritonitis. At times perforation has been demonstrated by a linear gas shadow just under the diaphragm usually on the right side.

Adhesions. Many bizarre patterns seen on the x-ray films may result from adhesions to the duodenal bulb (Fig 2). Following gall-bladder surgery it is often difficult to differentiate adhesions from deformity due to scar following an old ulcer. Gastric surgery also may result in adhesions about this region. The following case illustrates this point.

A white male, forty-two years of age, was admitted to the Surgical Service of Dr Joseph Tenopyr at the Caledonian Hospital,

April 5, 1936, with a history of upper abdominal pain relieved temporarily by eating. His story dates back twelve years, one year previously he had had his gall-bladder removed at another institution. Following operation his pain was more severe and continuous and was not relieved by meals. The x-ray report was duodenal ulcer, peritort the first portion of the duodenum in such a way as to have produced a pseudodiverticulum. A posterior gastroenterostomy was performed. The surgeon's note stated that the duodenum was explored by palpation, induration was felt in the mass of adhesions and omentum which was attached to the gall-bladder bed. This mass was not disturbed.

A second case in this group is that of M O, female, aged forty-nine, admitted to the Brooklyn Cancer Institute, February 2, 1937 and discharged as improved March 1937 (Fig 3). Her chief complaint was low back pain of three months duration.

She gave a history of having had her gall-bladder removed at another institution in October 1936, because of the same type of pain. She had lost practically 100 lbs in the past seven months and was admitted with the provisional diagnosis of carcinoma of the pancreas. This was apparently confirmed by the x-ray films, which showed marked distortion of the descending lumb of the duodenum. However, due to the fact that the pain was relieved by diathermy and her general condition improved somewhat during her stay in the hospital and as no mass could ever be palpated, it was concluded that she was suffering from adhesions between the first portion of the duodenum and the gall-bladder bed. Following her discharge she developed a severe jaundice and was admitted to a neighboring hospital where an exploratory laparotomy was done. The surgeon found a tumor in-

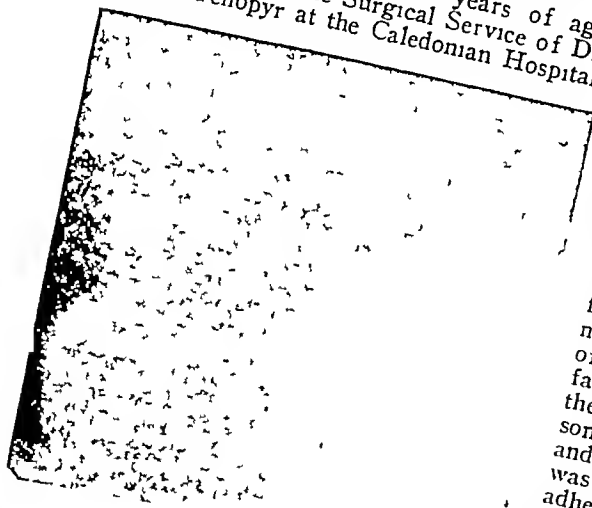


Fig 1 Duodenal ulcer

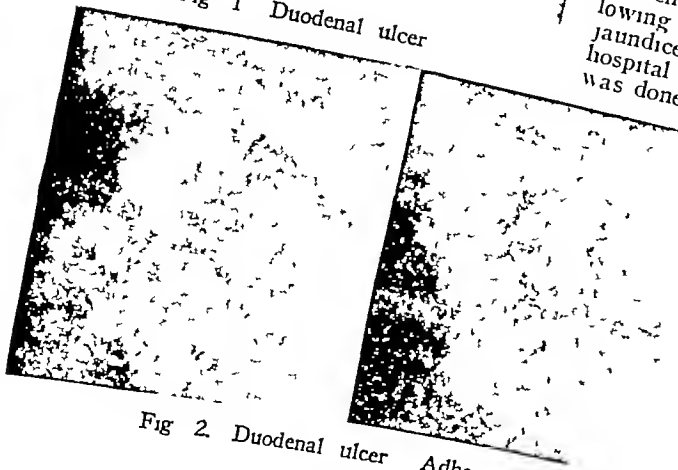


Fig 2 Duodenal ulcer Adhesions following cholecystectomy



caudal a site for injection of the alcohol or elevation of the pelvis to too high a position, may result in such injury to the sacral nerve roots. Stern warns against the use of one c.c. doses of alcohol at the third lumbar level, because in this region the sympathetic innervation of the bladder can be readily destroyed. He recommends a dose of eight minims of alcohol. This point of caution may not be of such great significance, however, as it has been shown that the hypogastric nerve may be severed without bladder paralysis.

A very small number of cases receiving subarachnoid spinocaine anesthesia develop headache, nuchal rigidity, and

even cranial nerve paralysis. Alcohol, being considerably more toxic than spinocaine, one would expect complications after alcohol injection to appear much more frequently. This inference is borne out by the large number of complications already reported in the literature on intraspinal alcohol injection, a literature only six years old.

MOUNT SINAI HOSPITAL

References

- 1 Dogliotti, A. M. *Presse Med.*, 39 1249, 1931
- 2 *Idem Med Rec* 140 347, 1934
- 3 Stern, E. L. *Am J Surg* 25 217, 1934
- 4 *Idem Med Rec*, 141 244, 1935
- 5 Tureen, Louis L. and Gitt, Joseph J. *JAMA*, 106 1535, 1936
- 6 Discussion of Sloane, Paul. *Arch Neurol and Psychiat.*, 34 1120, 1935

Discussion

DR MOSES KESCHNER, *New York City*—The case presented by Dr. Kessler well illustrates that the subarachnoid injection of pure alcohol for the relief of pain from peripheral vascular disease is by no means an innocuous procedure. In Dr. Kessler's patient the neurologic picture following the injection of alcohol into the spinal canal was indicative of a severe meningeal reaction and an affection of the cord and nerve roots resembling that described by Dr. Davison and myself (*Arch Neurol & Psych.*, 29 600, 1933) as toxic myelopathy. Histologic examination of the spinal cords in our cases of toxic myelopathy disclosed that the peripheral zones of the cord were more affected than the center. Similar observations were recorded by Weil and others who studied experimentally the effects of toxins on the spinal cord. Weil by applying saponin to the spinal cord in animals produced a pathologic picture resembling that in our cases of toxic myelopathy.

The literature is replete with reports of cases in which complications similar to those in Dr. Kessler's case followed the intraspinal injection of pure alcohol for the relief of pain in peripheral vascular disease. Such complications have been observed even in cases in which the injections were performed with strict compliance with the technic as described by the proponents of this method of treatment.

It must also be pointed out, that as far as the relief from pain in cases of peripheral vascular disease is concerned, intraspinal in-

jections of pure alcohol offer no advantages over peripheral nerve sections. This conclusion is based on the case presented here as well as on a critical review of the cases reported in the literature.

In connection with intraspinal injections in general, we also wish to sound a note of warning as the employment of spinal anesthesia in operations below the diaphragm. By this we do not mean to discredit the beneficial effects of this method of inducing anesthesia in proper cases, but we do wish to call attention to the fact that neurological complications following the use of spinal anesthesia are not at all rare. Among such complications are Paresis or palsy of one or both abducens nerves (these are most frequent), of the oculomotorius, trifacial, facial, cochlear, and vestibular as well as hypoglossal involvement have been observed. Lesions of the cauda equina, cord, nerve roots, meninges, and even of the brain have been described. Some of these complications may be slight and transitory, others permanent and even fatal.

The pathogenesis of these neurological complications is not as yet understood. The entire subject calls for cooperative investigations by surgeons, neurologists, and chemists. In the present state of knowledge it would be well that surgeons acquaint themselves with the frequency and nature of the neurologic complications so that they may limit intraspinal anesthesia to those cases in which for some reason or other general anesthesia is contraindicated.

A Louisville, Ky., newspaper recently recorded the death of a man on page one and carried an advertisement on another page in which his picture appeared together

with the statement that after taking three bottles of a patent medicine he felt "like a new man."

—Ohio State Medical Journal

THE THYROID GLAND

From the Standpoint of Pre- and Postemployment Appraisal of the Applicant for Work

EMIL GOESTCH, M D , *Brooklyn*

Thyroid disease, in both its mild and severe forms, is of relatively common occurrence in the general population. Because a mild hyperthyroidism, which is not disabling, may progress and because the fully developed disease is definitely incapacitating, the discovery of an existing hyperthyroidism becomes of great importance in the selection of employees from the large number of applicants seeking employment. By proper selection of the employee, injustices to both partners in a work program—employee and employer alike—are avoided.

The first problem that presents itself is the pre-employment physical appraisal of the applicant, with respect to his or her ability to earn a living. Since thyroid disorders, when mild, may cause little or no physical disabilities but may, when allowed to progress, be responsible for serious disabling symptoms, the factor of prime importance for estimation of immediate and ultimate disability is a proper diagnosis. I shall make brief reference to the more common types of thyroid disease.

The first type to be considered is the so-called simple colloid goiter. This is a condition, in which there is mild to moderate enlargement of the thyroid gland due to distension with colloid, and which is associated with little or no serious hypothyroidism and therefore responsible for little or no physical disability. It is common in the Great Lakes region of this country, but is relatively rare on the Atlantic seaboard. The patient with simple colloid goiter has, as a rule, a stable nervous system, a fairly good physical make-up, a slight tendency to inactivity, a slow and often subnormal pulse, some tendency to gain of weight, and a basal metabolic rate which is normal or moderately below normal. Unless the condition is advanced, it does not seriously interfere with work efficiency and rarely

causes disability in future years, particularly if simple medical treatment is instituted, such as the administration of small amounts of iodine and thyroid extract. To seriously question the ability of an applicant to hold a position, and to refuse employment on the basis of an existing simple colloid goiter may work a serious hardship on the applicant without at the same time safeguarding an employer.

A simple colloid goiter, associated with hypothyroidism, does not require surgical resection unless it is causing definite pressure symptoms or an unusual cosmetic disfigurement. Pressure symptoms, due to simple colloid goiter, and of sufficient importance to be noted by the patient, are so rare as to be almost negligible. Accordingly, interference with phonation, secondary to pressure upon the recurrent laryngeal nerves, is most uncommon. It is well to remember this fact in appraising the qualifications of an applicant for a position requiring a clear voice, as in certain types of work common in telephone companies. Some years ago I was asked to see a young woman of eighteen or nineteen years of age, who had a visible enlargement of the thyroid gland and who showed no disabilities upon physical examination. She was refused employment in the telephone company of another state for fear of the possibility of interference with her voice, and was promised employment if thyroid resection were carried out. To her the matter of employment was of such importance as to influence her to plead for operation. This was finally undertaken, against our better judgment. A limited resection was performed and her employment followed. I cite this instance, as an example of pressure exerted toward the performance of a needless operation and of hardship worked upon an applicant for employment.

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester, May 25, 1937*

The hyperthyroid syndromes are far more difficult to differentiate and to appraise than the hypo-conditions just mentioned. Functional neuroses of all degrees of severity are common, and require careful differentiation from true hyperthyroidism with which they may easily be confused. In fact, at times the differential diagnosis may be well-nigh impossible. A mild functional neurosis is not incompatible with a high degree of efficiency. I believe that individuals with a mild neurosis, as well as those subject to mild hyperthyroidism, frequently become very loyal and conscientious employees, who take their responsibilities to heart, and are thus more to be prized than their more phlegmatic sisters of relatively inactive nervous systems.

The functional neuroses of the so-called sympathetico-tonic type have many symptoms and even signs which overlap into the realm of true hyperthyroidism. Outstanding symptoms and signs are the generally nervous state, the tendency to fatigue, the vasomotor instability, tachycardia, tremor, and emotionalism. There are many neuroses which would disqualify an applicant for work. It would be impossible to fully consider these at this time. However, functional neurosis, of the so-called sympathetico-tonic type, is worthy of further consideration because of the similarity of its symptomatology to true hyperthyroidism. It is secondary to a hypersensitivity of the sympathetic nervous system, also characteristic of hyperthyroidism. Many of the outstanding symptoms and signs are common to both conditions.

Thus we find a generally nervous state, a marked lability of the pulse with unusual tachycardia especially under emotional stress, a tendency to fatigue, vasomotor instability, tremor, and emotionalism. If these symptoms in sympathetico-tonia are not too severe, and, more particularly, if they are present only under times of emotional stress, as during physical examination or competitive tests, they should not disqualify a candidate for employment, since they do not ordinarily interfere seriously with work efficiency. I have in mind two sisters, who visited me at intervals over several years and who complained of symptoms characteristic of the condition described.

I eliminated the factor of the thyroid gland and dismissed all possibility of operation. It was not unusual for these individuals, upon entering the examining room, to develop vasomotor flushes, tremor, throbbing, and a tachycardia as high as 160, whereas the pulse was only slightly above normal when these patients were at home and free of emotional stress. In the meantime they were efficiently carrying on their duties as school teachers and had consulted me, not because of physical disability or incapacity for work, but merely because of the annoying symptoms which were ordinarily unobservable.

I mention these facts to emphasize that certain functional neuroses should not necessarily disqualify an applicant for work. If employment is granted to such an applicant, the employer does not assume the risk of future physical incapacity of the individual. There are however certain neuroses, which interfere with work efficiency and which may briefly be considered. Not uncommonly the symptoms of sympathetico-tonia are associated with various phobias—fears of fainting, heart disease, dying, accident on the streets or in the subways, inability to care for oneself unless accompanied by another person, etc. In my experience these symptoms, characteristic of an anxiety neurosis, are of bad prognostic omen and most difficult to eliminate. They are naturally incapacitating for useful employment, tend to grow worse, and should be looked for in every obscure nervous syndrome. Incidentally, they rarely occur in true hyperthyroidism and, in instances of rare association with thyroid disorder, are not relieved by thyroid resection. In fact, I have come to regard the occurrence of phobias of various kinds in a nervous syndrome, as a differential diagnostic finding which excludes the thyroid gland and hyperthyroidism as the causative factor.

The sympathetico-tonic individual can usually be differentiated from the true hyperthyroid person by the fact that the nervousness in the neurosis is a familial trait and has been present as long as the patient can remember, whereas the characteristic nervousness of hyperthyroid individuals has a definite starting point, various phobias are common in the neuroses but much less common in hyper-

thyroidism, the differential findings in the thyroid gland in the two conditions are almost pathognomonic. The gland is little or not at all enlarged in the neuroses and there are no findings such as nodules or signs of increased vascularity, whereas it is the exception to find real degrees of hyperthyroidism unassociated with glandular enlargement, the presence of adenoma or signs of increased vascularity. Finally, the basal metabolic rate in the neuroses is commonly below normal, whereas in hyperthyroidism it is elevated in degrees proportional in general to the severity of the hyperthyroidism. Having made this differentiation, the medical examiner would not assume undue risk of employment of the person with mild sympathetico-tonic symptoms, since they are rarely caused to increase to alarming degree by employment. On the other hand, failure to recognize the early case of hyperthyroidism may work injustices upon both employee and employer alike. The employee may break down in employment as a result of a subsequent severe hyperthyroidism and the employer may be forced to assume liabilities for which he is not responsible.

There are eventualities which must accordingly be anticipated should employment be given to the person suffering from a mild hyperthyroidism. These eventualities are difficult to foresee. There is always the possibility that the type of employment may react unfavorably upon the physical status of the individual, and lead to a more severe hyperthyroidism, which may result in certain claims against the employer. On the other hand, there are unquestionable cases of hyperthyroidism which continue in mild form for years without being badly influenced by work, and which may undergo spontaneous improvement. What will happen to a mild hyperthyroidism under the influence of employment is difficult to estimate. Should a more severe form of hyperthyroidism arise, it is my belief that it probably would have arisen regardless of the work the person was doing unless, to be sure, the type of work was unreasonably difficult, or nervously exacting or fatiguing. Progressive hyperthyroidism is so commonly seen in patients who are able to have the best of care,

rest, and freedom from anxieties that it is difficult to believe that the type of work was the causative factor in the increase of the hyperthyroidism and the development of a definite visible goiter. It may be difficult to convince a judge or an opposing jury of this fact and it therefore behooves the employer to exercise great care in the selection of the employee at the start. I believe it is virtually impossible to anticipate the eventualities which may arise in the future course of a mildly hyperthyroid individual.

However, I believe one should keep in mind the fact that the disease has a very predominating tendency to progress, regardless of anything we may do under the circumstances, and one should be guided accordingly.

Not uncommonly, occasion arises to estimate the physical capabilities of a person upon whom thyroidectomy has been performed. Such an individual deserves a just consideration and should not be offhand or automatically put into a substandard physical group and be handicapped, merely by the history of having had thyroid disease. The thyroid surgeon is familiar with the excellent results obtained in the great majority of patients who have suffered with hyperthyroidism, and who have had a properly directed and executed thyroid resection. The operation removes the disability and restores work efficiency. The patients are quite generally able to return to their former occupations, and, in fact are in a position to seek employment in any average type of work. There is no particular reason to believe that the individual, following thyroid operation, will not be able to continue work, give efficient service, and earn a living. The chances of recurrence of thyroid disease, after a properly performed thyroidectomy, are very small indeed. Accordingly, the risk involved in continued employment of such a patient is no greater, I believe, than in any other individual. The employee after thyroidectomy for hyperthyroidism, is physically competent to resume the ordinary day's work, and the fact, that she has learned how to save herself, may make her a preferable employee in that she does not waste her energies in useless activities but spares

herself for the necessities of her employment

It is difficult to foresee the future course of a case of mild hyperthyroidism, and impossible to predict where true hyperthyroidism is going to strike. We frequently see exophthalmic goiter arise, as it were, out of a clear sky, without definite premonitory signs and symptoms, and subsequently develop into an acute form, all in the course of a few weeks to months. Thus the disease may spontaneously arise in an employed person, who in a previous examination or interview appeared to be in excellent health. The reasons for this sudden appearance of hyperthyroidism are entirely obscure and, in fact, the etiology of exophthalmic goiter is still shrouded in mystery. I have seen this disease arise in persons who had previously enjoyed excellent health and who had expressed themselves as not "having had a sick day in their lives." Naturally there is no examination that could possibly eliminate these persons seeking work and the possible development of hyperthyroidism is a risk that must be assumed in the general problem of insurance and employment.

Not infrequently claims are made by an employee, that thyroid disease, which was first noticed during employment, was caused by the nature of his work. With the more liberal interpretation of liability, and the extension of insurance and compensation, there has been an increased tendency on the part of employees to claim remuneration for disease or exacerbation of disease, which is attributed to their work. Since we do not know the cause of exophthalmic goiter, and since it may arise under any conditions and at almost all ages, it is difficult to establish any causative relation of the type of work to the disease. Naturally, a highly nervous or exacting type of work will exacerbate a mild or underlying hyperthyroidism, but to be the cause of exophthalmic goiter is another matter entirely. I had occasion recently to testify in a case of claim of an employee against his employer. The claim was that the lifting of heavy boxes, with one of which he fell on an occasion, caused his exophthalmic goiter. On further investigation it was found that indisputable evidence of incipient thyroid disease

existed before his employment in the lifting of heavy weights. I have encountered claims for compensation in the case of toxic adenomatous goiter developing in the course of employment. Here again it is often found that a nodule was present, perhaps years before and finally became toxic, synchronous with the employment at a particular kind of work. On the other hand, the nodule may first have become noticeable during employment and thus attributed to the nature of the work. Here again diagnosis becomes important and an understanding of the nature of the underlying pathology is necessary. Bearing in mind that adenomata arise as microscopic nodules as early as puberty or before, and only become visible in later decades, after slow growth in the interim, and that they are essentially benign neoplastic formations, it is entirely unreasonable and indefensible to claim that employment could initiate a thyroid new growth or cause a latent quiescent adenoma to become toxic. The etiology of toxic adenoma is little understood, and it is generally conceded that the occurrence of toxic adenoma has no relationship to the type of work.

The disposition of an employee, having developed hyperthyroidism in the course of employment, at times presents certain difficulties. Unwarranted claims are made for compensation and attempts are made to hold the employer liable for disabilities in no way causally related to the type of employment. The choice of treatment must be determined, with the thought always in mind of the earliest restoration to health and physical ability to resume work. In a case of mild hyperthyroidism without much disability, simple medical measures may suffice. In the frank, typical case of hyperthyroidism, whether due to exophthalmic goiter or toxic adenoma, surgery offers the best prospects for prompt relief of symptoms and restoration of physical efficiency. Medical, x-ray, and other treatment is at best prolonged, dubious, and most often inadequate. The period of disability is, in many instances, a matter of years and the economic responsibilities of the employee, and possibly the employer, become unbearably burdensome as, in the end, resort must still be made to thyroid resection.

Some time ago I saw in consultation an employee who, for more than a year, had been enjoying disability benefits which he seemed to prefer to making the effort to regain his health and his job. He refused operation for exophthalmic goiter, which was advised by the medical staff of his employer and consultants, while his own family physician upheld his unwillingness to submit to surgery. An interesting legal point arises as to what extent the employer may urge or insist on operation, which practically assures the restoration of physical efficiency for re-employment, when circumstances are such that medical treatment has definitely failed and surgical treatment is refused by both the patient and his family physician. I believe that hyperthyroidism, whether due to exophthalmic or adenomatous goiter, should be treated by surgical measures. The period of disability and convalescence is relatively brief, the chances of recurrence are negligible, and the prospects for continued efficiency are good.

Parenthetically I may sound one note of warning with reference to the treatment of goiter with iodine. It not infrequently happens that lay persons, and this naturally applies to employees, receive iodine self-administered or prescribed by a well-meaning physician with

the result that the symptoms of hyperthyroidism are markedly exacerbated and the risk of operation definitely increased. Iodine, even in small doses, should not be given as treatment to a patient with hyperthyroidism, but should be reserved strictly for the preoperative period.

Summary

Thyroid disease is a not uncommon disability and should be kept in mind in the employment appraisal of the applicant for work. Simple colloid goiter does not interfere with work efficiency particularly if medical treatment is instituted. The hyperthyroid syndromes are apt to be disabling, while many of the minor functional neuroses which should be carefully differentiated from them, are not. The possibility of goiter and hyperthyroidism occurring during employment cannot be foreseen but the cases of mild hyperthyroidism which may subsequently develop serious symptoms, can be eliminated by careful physical appraisal before employment. Goiter with definite hyperthyroidism, arising in the course of employment, should be treated surgically for the prompt removal of disability and restoration to work efficiency. Iodine should be avoided in the treatment of hyperthyroidism.

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Discussion

DR. W. S. McCANN, *Rochester*—I do not feel competent to discuss all phases of this very interesting paper of Dr. Goetsch's, since I am not myself an industrial physician. One phase, however, is of very great interest to me. That is the effect of thyroid disease upon the muscular efficiency. You will recall that a number of years ago Boothby of the Mayo Clinic discovered that the mechanical efficiency of patients with thyroid disease whose basal metabolic rates were forty to fifty per cent above normal were only about half as efficient mechanically as normal. When we consider the normal man as a power machine, we find that he has a net efficiency of about twenty per cent, that is, if he performs work with a heat equivalent of 100 calories he will have to produce in his body 500 calories over and above his basal metabolism for the period of the work. By his net efficiency we mean that he uses twenty per cent of his extra heat production for effective external work and eighty per

cent dissipated as heat. A patient with hyperthyroidism doing the same amount of work would probably consume at least a thousand calories bringing his net efficiency down to ten per cent but requiring for this amount of external work twice as much extra metabolism with its resultant effect upon the respiratory and cardiac mechanism.

It seems to me that in this question of the relation of thyroid disease to employment the nature of the man's job would be one of the major considerations. For instance, an iron moulder pouring heavy castings and required to do heavy mechanical work would have to be mechanically efficient and it would seem obvious that his thyroid condition should be corrected.

Concerning those patients with prominent sympathomimetic symptoms with or without hyperthyroidism, my experience has been that the disturbance in the vegetative nervous system goes on more or less independently of the hyperthyroidism. That is, it may persist

even after the basal metabolism has been brought to normal by a partial thyroidectomy. Such patients are very adversely affected by nervous strain of any kind and such strains are frequently encountered in plants in which the management puts on a very high pressure

in order to "step up" production. Such patients, it would seem, would be very poor subjects for nerve-racking jobs of any kind, though they might be useful in many types of employment in which they could be given less exacting tasks.

ROUND TABLE DISCUSSIONS ON SYPHILIS, ETC

Beginning December 4, a series of Saturday morning round table discussions on venereal diseases will be conducted at the New York City Health Department Building by the Bureau of Social Hygiene. These will be most informal conferences, open to all practitioners of the city, the purpose of which will be to help clarify difficult points in diagnosis, treatment, and management of venereal diseases by the general practitioner.

For reasons of convenience in organization, one main topic will be considered at each session, together with clinical demonstrations, wherever possible, and distribution of appropriate literature.

All members of the medical profession are cordially invited to attend and to participate freely in the discussions, asking questions and citing their own particular problems. It is intended to hold these conferences, depending upon the response and

the demand, at frequent intervals thereafter. Examples of the suggested topics to be discussed are Syphilis—Diagnosis of Primary and Secondary, Treatment of Early Syphilis, Management of Latent Syphilis, Gonorrhea in the Male, Gonorrhea in the Female, Vaginitis, Lymphogranuloma Inguinale, Chancroid.

The talking motion picture on syphilis, produced by the American Medical Association and the United States Public Health Service, will be shown at this meeting at 9 30 A M promptly, followed by a discussion and demonstration of primary and secondary syphilis. Members of the staff of the Bureau of Social Hygiene possessing special experience and qualifications will lead the discussions.

Meetings will be held in the Conference Room, on the second floor of the Health Department Building, 125 Worth Street, New York City, from 9 30 to 11 30 A M.

A MILLION NEW GONORRHEA CASES EVERY YEAR

According to R A Vonderlehr and Lida J Usilton, Washington, D C (*Journal A M A*, Oct. 30, 1937), annually in the United States at least a million persons acquire gonorrhea.

The incidence of gonorrhea is highest in cities of from 50,000 to 500,000 population, and lowest in metropolitan and rural areas. The mean age of acquiring the infection is twenty-nine years for the white male, twenty-four for the Negro male, and twenty-four for the white female. The age of highest frequency of infection is several years younger in each instance.

A fourth of the cases of gonorrhea occur in females, eighty-six per cent in the reproductive period of life. Thus approximately 230,000 potential mothers in the United States acquire gonorrhea annually. There

are constantly under observation and treatment 493,000 persons with gonorrhea in the United States.

There is no substantial evidence that gonorrhea is on the decline in the United States. However, the medical corps of the armed forces of the United States has demonstrated that something can be done in the control of gonorrhea with the methods at present available. A few European countries have reported a decline in the number of cases of gonorrhea, although in no instance is it as marked as the downward trend for syphilis. The percentage of gonorrhea under treatment in public clinics decreases with the decrease in the density of population. Gonorrhea is much more prevalent than any other serious communicable disease.

A Freshman medic stated that carbon monoxide poisoning is the same as auto-intoxication—*Nebr State Med Jour*

It is still true that it is more important to know what sort of a patient has a disease than what sort of a disease a patient has.

ABSENCE OF PULSES IN UPPER EXTREMITIES

H B FEUERSTEIN, M D, *New York City*

A. S., female, age thirty-eight, housewife, was first seen in the Medical Clinic of New York Post-Graduate Medical School and Hospital on June 15, 1935

The patient was of small stature rather delicate, and did not seem acutely ill. Her chief complaint was dizziness and weakness over a period of six months. The family history was negative, childhood illnesses were grip and measles. In 1918 the patient was confined to bed with pain in the legs for three weeks (diagnosis undetermined). She had corneal ulcers in 1933 (etiology unknown) and a tonsillectomy performed in 1934.

Physical examination of eyes, ears, nose, and throat was negative. The lungs were likewise negative. Examination of the heart showed the apex beat in the fifth space, midclavicular line, no murmurs, fair muscle quality, rate 120. The abdomen and lower extremities were also negative.

No pulses could be felt in either wrists, cubital fossae, the inner aspect of the upper arms or axillae. There were no temporal pulses. The carotid pulse on the right side was very faint, the left was not palpable. The only distinct pulsations that could be felt were over the abdominal aorta, the femorals, the popliteals, the tibials, and the dorsalis pedi. We can therefore assume that the branches arising from the aortic arch have been in some way affected, while those coming from the descending aorta are apparently normal. No blood pressure readings could be obtained in the upper extremities. The blood pressure in the right leg was 155/95 and in the left leg 175/90.

Radiographic examination of the heart shows it to be normal in all its dimensions with no evidence of any aneurism, the lungs were likewise negative. The electrocardiographic tracing showed nothing but a simple tachycardia.

The Wassermann was negative, the urine was essentially negative, skin temperatures were normal for both upper and lower extremities. The blood count was

RBC 3,620,000, WBC 8,250, Hgb seventy-nine per cent, Color Index 1.09, Polys forty-nine per cent, Lymph forty-five per cent, Monos one per cent, Eos five per cent.

A search of the literature reveals only three similar cases reported. One reported by Shikhare¹ came to autopsy and revealed a fusiform aneurism of the aortic arch occupied by a large antemortem clot obliterating almost the whole of its lumen. The other two cases^{2,3} were not followed to their termination.

The patient is still under observation and claims that her symptoms have partially disappeared.

The tentative diagnosis is (1) Coarctation of the aorta and (2) Congenital anomaly of the arteries of the upper extremities.

1290 GRAND CONCOURSE

References

- 1 Shikhare, P. V. *India Medical Journal* (Calcutta) 1921 2
- 2 Brown, C. F. *China Medical Journal* (Chefoo) March 1929
- 3 Black, D. M. *China Medical Journal* (Kinin) June 1931

VENEREAL DISEASE SERVICE TO PHYSICIANS

In connection with the Venereal Disease control program, the Bureau of Social Hygiene of the Health Department of New York City, wishes again to call attention to the services rendered private physicians.

Through the cooperation of the New York State Department of Health and the United States Public Health Service, free drugs for the treatment of early syphilis, congenital syphilis, and prenatal syphilis in private patients are offered to the practitioner without regard to the economic status of the patient. Diagnostic and laboratory service, including darkfield examinations, serologic tests, examination of smears, and

spinal fluid examinations, is also rendered to private physicians for their own patients at various centers throughout the city.

Follow-up service for lapsed syphilis cases of private physicians is an important feature, in no case will this be done without the express request of the physician for such action, and investigators or nurses will represent themselves as coming directly from the doctor, and not the Health Department. Every effort will be made to induce patients to return to their own doctors.

For additional information, address the Bureau of Social Hygiene, Department of Health, 125 Worth Street, New York City.

Preventive Medicine

Prevention of Mental Illness

CHARLES H. GOODRICH, M.D., Brooklyn
Presidential Address

There are layers or strata of knowledge which might be likened to geological formations. Some of the content is exposed and accessible to all persons whether or not they have professional qualifications. The next layer, to be found immediately beneath the surface, holds values readily obtained by educated and informed persons whether medical or lay. As we burrow beneath, we find that the succeeding strata become more and more inaccessible. For them we need to dig deep and direct our toil with concentrated intelligence to find the special ore and to distinguish it from the ordinary metals. These strata are reserved for the trained and experienced expert and the present speaker will not venture to explore them. But he may safely venture, as he purposes now to do, into the strata of knowledge of mental illness where every man with medical training, should be able to find his way about. In recent years we have arrived at a degree of appreciation of the importance of prevention here as elsewhere and a juvenile conception of why and how we practitioners should "get busy."

Without an excessive degree of assurance we therefore present for your consideration the prevention of mental illness. This is the main object of what is called mental hygiene. The psychiatrists tell us it is mental hygiene. This is a comparatively new subject to most of the world. It is nevertheless now a headliner because the percentage and prevalence of well-balanced sound minds do not increase in proportion to the increase of population. Also because of the increasing burden of mental illness and the awakened interest of man in his own personality and its problems.

Its scope is immense. The elaborate problems to be solved in the best care of the mentally sick and feeble-minded belong here. Constructing more and more piles of

masonry and brick for custodial care is not the answer. Scientific prevention is the fascinating ideal. For each mentally deranged person there are a dozen in the domain between insanity and complete sanity. There are several times the sound dependable brains that there are deranged ones. In the crowd in the "land between" there is an immense quantity of mental power going to waste, perhaps for the lack of intelligent guidance and hygiene. Psychiatrists insist that a considerable proportion of our literature, art, poetry, and music is produced by psychopaths. Many moderns "measure our superiority over our ancestors by the greater luxury of our mode of living" (Strecker). Professor Einstein has said "The world has slowly grown accustomed to symptoms of moral decay. One misses the elementary reaction against injustice and for justice—that reaction which, in the long run, represents man's only protection against relapse into barbarism." The complexities of modern life are presenting mental and physical problems which affect everybody, but the mental predominate however important the physical. The personality of every individual makes a definite impression upon the world in his day. "In the last analysis, *anything*, no matter how trifling, which raises the mental hygiene of the individual is a boost for civilization, anything which lowers it is a knock" (Strecker).

Very learned, wise physicians consider that physical hygiene and mental hygiene should go hand in hand, are interdependent, and that the application of one without the other produces an incomplete or lop-sided human element with which all human elements must live and deal. How many of these deformed natures are there in proportion to people of well-proportioned development? And how many are mentally diseased? And in which half of the wide borderland are they performing? Con-

Read at the Annual Meeting of the Fifth District Branch, Louisville, September 23, 1937

template Europe—especially Spain, Germany, and Russia! Survey fifty million Frenchmen! Take a bird's-eye view of the United States of America! It seems that "the idea that reform owes its vitality to the recognition of moral principles is rejected by most of our modern so-called reformers, who see not the slightest connection between ends and means, between ideals and conduct. It is no longer considered indecent to use the most ruthless methods to assassinate the character of one's opponent. There is one conception of justice for the rich, another for the poor. Violence is justified in the hands of one group and denounced in the hands of another" (Dorothy Thompson). Of course we can judge only by the places and people we read about in a "free press." And incidentally how mentally hygienic is the "free press?"

As we attempt to "match up" physical and mental hygiene we find that they are not exactly alike any more than are the many other objects which we see going about hand-in-hand. To thoroughly appreciate their spheres of influence we must define their "unlikeness." Physical hygiene is largely material, anatomical. You cleanse the skin with soap and water. You sterilize drinking water and pasteurize milk to kill bacteria. You mask the worker-indust to prevent inhalation of flour, metallic particles, silicates and coal dust. You exercise to develop muscular power and agility. But you would not *think* to do these things without a mind! Mental hygiene is largely physiological in its approach, if we grant the existence of essential brain-cells and their dependence on the physiologic action of other anatomical parts like heart, lungs, arteries, blood, and so on. Physiology is the "science of the workings of the healthy human body" (Curtis). So when the brain cell goes to work it inspires and guides the workings of the other parts. While itself a small anatomic element dependent on others, its physiology dominates activities in many huge material parts. While readily admitting anatomic and physiologic elements in both, we believe that a clearer practical conception of mental hygiene is evolved by thinking of it as largely physiological as compared with physical hygiene largely anatomical.

Here enters the hand-in-hand business!

Physical hygiene is largely concerned in preventing certain contacts, intakes, obstructions, or injuries which will lessen the physical potentialities of bone, muscle, blood, viscera, et alios. Mental hygiene is largely concerned in preventing those contacts, intakes, obstructions or impressions, which will implant fear, hatred, abnormal pride or unreasonable sense of importance. Moreover and of greater significance it aims to prevent the collapse or delirium of protest or the deep shrinking sense of hurt which often interrupts life's progress in those crises or seeming crises with which we are all familiar by observation and personal experience. This means the development of mental qualities and powers by training, influence and cerebration, which will afford elasticity of mind and a large degree of intelligent serene accommodation to shocks and reversals and perhaps to the most delightful surprises of circumstance (For we need to learn how to adjust ourselves to prosperity as well as adversity). To give ideal results the elasticity referred to must be of coordinated mental equipments in turn coordinated with the elasticity of coordinated physical equipments. We all know that such highly coordinated elasticity is observed and experienced—but in what proportion of lives? We leave the answer to psychiatrists of long experience who possess a wealth of records.

While thinking and talking about elasticity you may sagaciously ask for an authoritative definition of elasticity, even though you all have definite conceptions of its meaning. So here it is.

"ELASTICITY That property of matter by virtue of which a body tends to return to a former or normal size, shape, or attitude after being deflected, compressed, expanded, twisted or drawn (extended), the rebounding quality of bodies, as the elasticity of the air, the bow has elasticity.

"Elasticity may be of (a) volume as when a gas is compressed—or of form as when a solid is distorted."

It so happens that the Standard Dictionary that we use in our study was published in 1913, and to give evidence that Mental Hygiene is not intrinsically a new subject we add the secondary definition of "elasticity," which is—(Mental) "The tendency to recover from depression or misfortune, buoyancy, also the capacity for adjustment or accommodations as to changed

circumstances, as the elasticity of youth"

Now we all know that this "elasticity of youth" is not always developed in youth or early maturity, because of the notorious aberrations of the youthful mind, the indifference to the responsibilities of living, the excessive development of delictious habits, and the descents into criminality. However the "elasticity of youth" is the normal, and one of our outstanding responsibilities as physicians is to maintain this intellectual quality in ourselves until the end and to so influence our people that it develops and endures in them through circumstances fair and foul.

Mechanically "elasticity" can be measured

A "modulus" is a number, coefficient, or quantity that measures a force, function or effect. Thus the "modulus" of elasticity of human muscle can be accurately measured. Most of the elasticity of the human body abides in its muscular structures, voluntary and involuntary.

In contemplating mental hygiene, the prevention of mental disease, we can reasonably liken "the elasticity of youth" mentally to the "elasticity of youth" muscularly. There is just this difference. The "elasticity of youth" will sometime be replaced in muscles by the production of fibrous tissue. Whereas mentally the "youthful resilience" may be maintained until advanced age—and is its grandest resource and solace. An eminent example of this was the late Mr. Justice Oliver Wendell Holmes, whose mental acumen and agility endured to the end. We can therefore foster the development and maintenance of "mental elasticity" as a prime duty in the training of humans from birth to old age.

There are systemic diseases which often cause important degenerative tissue changes in cerebral centers, spinal-cord and throughout the network of nerves. It goes without saying that the prevention and early conquest of these diseases constitutes mental hygiene of prime importance. Thus the developing intensive war on syphilis is an important material contribution to mental hygiene. Modern early discovery and arrest-cure of tuberculosis has illuminated many a darkened mind otherwise destined permanently for the shadows. No disease is more likely to cause the fibrosis or sclerosis of cardiovascular disease than dia-

betes. Thus the prevention of diabetes in susceptible races or families is mental hygiene, also insulin and the modern balanced diabetic diet. Thus with other systemic diseases—gout, arthritis, acute infections and various grades of chronic sepsis, also toxic substances, alcohol, lead, hypnotics, and sedatives. We must not forget trauma and gross brain disease and cerebral arterioscleroses. The beneficent influence of preventive medicine along many lines again convinces us of the "hand-in-hand" element in physical and mental hygiene which amounts to a merger.

Now where does all this lead us? Where but to a realization of the magnitude of the responsibilities settled inexorably upon leaders in the world. This means not a few Psychiatrists must lead us in the details and tactics of warfare upon mental disease and of prevention. We must learn the role of emotions and conflicts in the production of physical symptoms and complaints. The bulk of responsibility in prevention must be borne by parents, teachers, clergymen, physicians and hospital personnel (for sick bodies are usually crowned by sick minds), business executives, shop and other foremen, radio and cinema producers, authors, newspaper writers, publishers, and last but far from least all government officials, national, state and municipal who are elected to accomplish great good *for the people*. If we except ten per cent of parents, many clergymen, twenty per cent of physicians, and a scattered hospital personnel, the bulk of these responsible people are not practicing mental hygiene but its antithesis. Common attitudes toward mental illness are indifference, evasion, perplexity, or useless sometimes detrimental fussing.

In a campaign of Preventive Medicine it is incumbent upon us physicians to encourage and expand the practice of mental hygiene. Convincing addresses to medical and lay audiences whenever and wherever possible will be helpful in sounding notes that will reverberate in human welfare for decades to come. The Mental Hygiene Committee of the State Charities Aid Association is alive to the need and will help us while themselves campaigning. Our own Public Relations Bureau is ready with amazingly efficient service. Moreover every earnest psychiatrist will not only counsel with you but will himself present some phases of the subject upon which you and

I might hesitate to embark. Thus we will initiate another phase of the campaign of prevention to which our House of Delegates has pledged us. We can only start this year.

The harvest from prevention can only be reaped after a decade or more of devoted work.

Along with our Helen Wills', Eleanor

Holms, our Lou Gehrigs and Joe Louis' and other models of physical development, let us aim and work to develop more of the Jane Adams', the Mary E. Wooleys, the Parkes Cadmans', the William Lyon Phelps', and the Oliver Wendell Holmes' and, let us not forget, more William Oslers. This illustrates our conception of the objectives of Mental Hygiene.

Presidential Greeting to the Oswego County Medical Society

On the evening of the One Hundred and Sixteenth Anniversary of your County Society it is well to review with pride the composite advance of the years, and to contrast the size and scientific activities of the first meeting of members with the dimensions and evidence of vitality presented tonight. However, the most important business of your Anniversary Celebration is to look forward and determine what shall be the ideals and objectives of the next one hundred and sixteen years more or less. That we are constantly striving to develop and expand our quality and capacity as physicians goes without saying. We often remind one another that scientific work is so fascinating and human needs so absorbing that we sometimes forget that our part upon life's stage is a dual one, and omit to fulfill all of our duties as citizens of the State, Nation and the wide, wide world.

A County Society can competently keep efficient citizenship before its members as a constant ideal. Activities along the line of postgraduate medical education are inspiring self-liquidating efforts for a County Society—of priceless value to the community. Close association and cooperation with the Health Officer and the Department of Health smooths the track of medical progress. Wherever we have found local Health Officers integrated with the official and committee work of a County Society we have found harmony and efficiency. Every physician should be a deputy Health Officer in spirit and in fact.

Closer cooperation with the State Medical Societies and the great American Medical Association will advance the largely needed effort being made by so many of us to secure unified thought and action. Our

socialistic enemies gaily play upon our widely published differing opinions about the *very little* details of practice, while we actually agree upon the principles and main issues concerning the delivery of Medical Service.

We can safely express our unified opinion through our State Society Bureau of Public Relations or through the great editorial offices of the American Medical Association. Individual or even independent group opinions are often based upon incomplete or inadequate information, whereas the headquarters, which you all help to maintain, has the machinery for collecting and weighing all evidence and considerately presenting unified opinion.

Scientifically, in addition to lectures and demonstrations on postgraduate education your State Society is endeavoring to popularize and develop the practice of Preventive Medicine (as a practical answer to those who talk about inadequate medical service). Active efforts to universalize scientific immunization protection in known fields is, of course, primarily in order. The pivot about which revolves the balance of preventive medicine is the periodic health examination. County Societies can provide speakers to expound the advantages of this measure, to lay audiences. Specific problems in prevention, such as tuberculosis, cardiovascular disease, wound infections, and a hundred others can also be presented. We suggest *specific* problems. Of what practical value are generalizations? One by one outstanding examples can be discussed with the hope that the massing of evidence along an extensive front battle line will sometime render obsolete the desire to cure or be cured of an *advanced* disease, because

of a universal desire to anticipate such occurrences

We can look forward to the day when there will be many specialists in periodic Health Examinations who work alone or in groups

Done with complete and conscientious competence it will prove to be valuable insurance for the people and a delightful, profitable practice for physicians. But people and physicians must develop a

new light upon the value of life—of time and of prevention. And we must be well prepared in preventive medicine to practice it successfully. So as we felicitate you upon your birthday we invite you to our Prevention Party. If you and all of the other invited guests keep at it for the next one hundred and sixteen years there will be a change in the character of illness seen, a prosperous and revered profession, and a general expansion of well-being.

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., DR. PH., New York City

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

A Condensed Reply to a Psychoneurotic

(Abbreviated summary of several talks)

"You have asked me to be frank and I shall not spare you. In the last few sessions you have been speaking all that you desired. If you will keep quiet now I shall have something to say. You talk so fast and so well because you try to convince, not only the doctor, but yourself. Deep down you are not entirely certain about your complaints. You are doing all you can to hold on and not to let anyone cure you of them because you need them. I know, you will say that, on the contrary, you have gone to doctors and have tried your best to effect a healing, but there was no success. The truth is you have done all that in order to be able to say to yourself and to others that your ailments were incurable. In the first place, it is quite doubtful whether there was anything physical to treat and no matter what would have been accomplished it is certain that you would not have accepted it as a cure. You are sure you cannot exist without your pains and aches because they cover up your real conflict, which is not hidden from you and of which you are perfectly aware: your hatred for your husband and your lack of courage to separate from him. Besides, your suffering is connected with some pleasure. You enjoy your trouble because it is the only thing which distinguishes you from other people and which helps you to attract attention to yourself. It is your beloved subject of conversation and it gives you an excuse for acting, for posing, for being interesting, although you are mistaken about that, as you are really a bore to everybody concerned. If you were an advanced psychoneurotic it

would be useless to tell you all these things. You would not even listen, being preoccupied with your condition. But you are not. You can still be cured. That is why I have consented to give you advice. No matter how selfish you are, no matter how little you are concerned about anything outside yourself, no matter how much contentment you derive from constantly thinking and speaking about yourself, you are unhappy. Your problem is not solved and your eternal whining and complaining will not solve it. You are over forty and, while you can live another thirty years or so, your life will continue to be miserable. The pity of it is that we know perfectly well that you can be happy or much happier than you are at present for the rest of your existence, if you only desire it, if you are capable of desiring it—and I claim that you are.

You are not only harming yourself, but you are doing untold harm to others, to your nearest kin chiefly. Perhaps you really "do not give a damn," as you say, about the fate of any one else in your family. But if you are aware that you are hurting your own children and are doing so the more intentionally, you are a despicable person. You would do better to desert them altogether, to disappear from their presence, so that they should never see you. What would you think of a woman who would deliberately infect her children with syphilis? How would you judge a tuberculous person who would purposely disobey all hygienic instructions in order to have her children catch consumption? Well, your

actions are worse, much worse than that. Your incessant if monotonous repetition of your complaints before your two helpless little girls, the only creatures who are forced to listen to you, your invariable wry face, your endless threats of suicide, your laziness and frequent excuses of sickness in order to shirk your duties, are a bad poison for them, for their minds. They have already started on the fatal path. They have begun to imitate you. But they can still be saved. They are bound hands and feet and exposed to your mental venom. If you will not change your behavior it is almost a fatality that they should suffer from some disease of the mind and perhaps of a worse condition than yours. If they will understand the source, they will hate you and curse you in their horrible semi-lucid moments—and you will have deserved it. And not only that. If they have children, they will transmit some insanity to them, not by heredity, but by holding before them a mirror, by their bad influence, by their obnoxious suggestion in the same way as you are forcing now your children to become mentally ill.

"For years you have been complaining about a vague ache of the left side of the face, extending to the left shoulder and the left arm. All the honest physicians who have seen you have told you that nothing abnormal was found. Your descriptions and indications corresponded to none of the diseases or symptoms of diseases which we encounter in those regions. Through certain scientific methods, with which experienced doctors are familiar, it was discovered that you had no pain whatever. This might have been interpreted as malingering. However, it really did not mean that you were simulating, but that your mental state forced you to lie. Had no physician treated you at all, perhaps you would have been better off. But they were not a match for you. While they were well-informed about the human body, they knew but little about the mind. They were timid and you have done all you could to make them doubt and lose confidence in their own convictions.

"Further, not satisfied with their verdict, you went on searching, until you fell into the hands of less scrupulous men, officially condemned by the profession. They seized upon your disorder, took advantage of your misfortune, making believe that they were treating you. There was mutual deception. You thought you fooled them and they were sure they deceived you. Some very meaner and more cruel than others. They had your good, healthy teeth extract and they extracted your husband's money by giving you unnecessary subcutaneous or intrav-

enous injections and treating you with electricity—and so on and so forth.

"Then you descended to the irregular healers and to other swindlers and you let them work upon you. The more they handled you the more you liked it, although at no time were you either helped or satisfied or happy. Not that you believed in them. No, you knew before you started that you would not respond. Your mind had been made up in advance.

"Later you discovered psychoanalysis. You allowed your personality to be taken apart, as it were, but you resisted all you could to a cure and when you believed there was danger of improving your trouble or getting rid of it, you quit your examiner without coming to a conclusion.

"Finally you visited the lowest quacks, the Negress who sweated you in blankets, the mysterious, turbaned and bearded Hindu who reincarnated you and the Great Spread-Winged Eagle who purported to be a descendant of a Red-Skinned Chief and who gave you a herb and a written prayer.

"You are living with your husband although you cannot stand him. He is nice to you. In fact he is an angel, gentle and submissive, while you are the dominating figure in the house if you only cared to rule. You are not interested in any other man—or woman. Your husband is faithful to you—and, as far as you are concerned, you would prefer him to be otherwise. He is not forcing the sexual intercourse upon you. You desire it rarely, at least with him, and each time you have it, you make it appear as if you never craved it but that you sacrificed yourself to save him. You also make him pay for it by abusing him for his so-called brutality. An August Strindberg, after seeing you, would find in you a worse fiend than he could have ever imagined and his misogyny would soar more triumphantly than ever. Of course, it is your right to detest your husband. But then, why don't you leave him? You have no income, your parents are dead, you have never worked for a living. That is no excuse. A proud, brave person would defy all that and would become economically independent. You used to have so many abilities. You can revive them. You have had a high education. You are cultured and intelligent. What are you doing with these qualities, so harmful in your case? You are using them as tools to make your condition worse, as weapons to fight off any possibility of a cure or any hope for an amelioration.

"But if you live with your husband, why don't you make peace with him? He has never ceased to hold out the olive branch to you. You have ruined his life partly,

but your tactics have acted like a boomerang and you have wrecked your own life, so far, completely. You can still save the situation. An effort to readjust yourself is still possible.

"I know, you have read—or rather skimmed, since you have no patience to read—books on psychology, on psychoanalysis and psychiatry and you were happy to learn that you were not supposed to have the will-power to do anything definite, that your personality was disintegrating and nothing can be expected of you. Disabuse yourself! Your mental disorder has not gone far and it fails to fit the descriptions of the learned authors.

"Would you really wish to become insane? To be shoved aside, shelved and locked away, to talk nonsense for a year or for lifetime? Is it a good thing? I assure you, it is still within yourself to avoid it, to prevent it.

"You have been toying with the idea of committing suicide. You have scared your people many times. Your meanness, your cruelty is so great that you are enjoying the Damocles sword over their heads. For them it would be preferable that you should lay hands on yourself. For you, too, if you are not going to discontinue behaving as you do. But you have been lying. You have never even attempted to kill yourself. And, since you are alive, why don't you live decently? Why don't you make a good and efficient job of living? As you are not dying, why not agree frankly and honestly to live and to live fully? Your suicidal hypocrisy cannot help you.

"And what about life? If you despised it on principle or on philosophical grounds, I would have no objection. But you do not. Just now you are on bad terms with the world that surrounds you. But you can appreciate the world's beauty, you know

where to find it and you have the means to enjoy it.

"Now you have come to see me. Unless you run away never to return to my office, I shall not flatter or coddle you, or help you to become spoiled or to nurse and perpetuate your condition. A physician should be medically non-sectarian and should make use of all possible methods by which he can save life and limb and the mind. I would not object even to magic if I knew that it could be useful. But it cannot. You have heard that we are supposed to be less severe, that we cannot ask you to get well when you are not. That is perfectly true in other cases, in bad cases. But I cannot leave you even this subterfuge. You do not belong there and I must 'treat you rough,' as you say, which really means being honest with you. And this for your own sake. In many cases like yours and particularly in those we used to call hysteria the cure often employed, especially by the French school is drastic and quite cruel, as, for instance, a very strong electric current, pushed almost to the limit of endurance. It works, it shows effects, often immediate and brilliant, but, alas, very temporary ones. My harshness will either be useless or it will heal you completely and permanently."

These talks had their effect in this case. After a lapse of several weeks this patient came back and said:

"Nobody has been so outspoken with me as you. It was hard to follow you. Sometimes I felt like slapping you. But your words were not wasted. They were too compelling. I have digested every one of them. I thought matters over and here I am to tell you that I am on the road to recovery."

611 W 158 St

AMERICAN MEDICAL GOLFING ASSOCIATION

A "Golfers Special" to the San Francisco meeting of the A M A is being organized by the American Medical Golfing Association. Physicians who like golf mixed with their travel will find five games arranged on their trip out to the coast for the A M A meeting of June 13-17, 1938, and three games on the return trip through the Northwest. The first game will be played in New Orleans, reached by the Steamship S S Dixie, from New York (or via a rail itinerary) on June 7. Other stops include Houston, Galveston, San Antonio, Los Angeles, Del

Monte, and finally San Francisco where the big tourney will be held June 13.

The return trip includes Portland, Seattle, Vancouver, Lake Louise and Banff, and finally St. Paul and Chicago.

Non-golfers as well as golfers, and their ladies, are welcome and will find the A M G A Special a glorious experience.

For full particulars write Dr. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City, N. J., the President of the A M G A, or Bill Burns, Executive Secretary, 2020 Olds Tower, Lansing, Mich.

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EDITORIALS

Pertinent Criticisms

Like Sweden, Czechoslovakia has often been cited as a model for social legislation. Yet in less than twenty years so many faults have revealed themselves in her "model" system that widespread revision is now under consideration.

In connection with contemplated changes, it is interesting to note a statement issued jointly by the Czechoslovakian and German Medical associations, for the situation of which they complain exists today in this country to an unprecedented degree. Referring to proposed amendments to the insurance law, our German and Czechoslovakian colleagues make the following pertinent observations:

"The medical profession certainly has a right to be heard regarding all these measures, which so deeply affect the professional, economic and social interests of medicine. In spite of this fact the physicians have been given no opportunity to present their suggestions or to express their needs and their desires with regard to this proposed legislation, except that here and there they have been permitted to express their opinion on a few points.

"The profession has been given no opportunity during the preparation of

these laws to contribute its medical experience and knowledge. We do not know just why the value of medical cooperation has been so little recognized or why it has gained the distrust of social-political circles, both official and nonofficial, nevertheless it is evident that this attitude has arisen and prevails at the present time. It is clear that the profession will not at this time be called on in the preliminary stages of social work or, at the best, it will be given only a formal recognition after much insistence on its part."

In this country medicine is faced with exactly the same attitude on the part of politicians and lay social workers who enjoy their confidence. The latter formulate important medical and quasi-medical policies, and the profession is then given the choice of playing alone or being left out in the cold.

Apparently the political powers-that-be recognize that the private practitioner will never be a pliable tool in their hands and that private medical practice does not lend itself easily to political exploitation. The solution, from their point of view, is to abolish medical independence by bringing medical practice under bureaucratic control.

A superficially altruistic scheme is hatched, floods of propaganda are unloosed until a semblance of popular demand is created, and then the physician is invited either to assent or starve.

Undoubtedly there is need for wider and more effective public health planning in this country. No less here than in Czechoslovakia, however, it is necessary "that the position of the physicians should be considered in the very beginning of the discussion of such legislation and that the carefully considered conclusions and proposals of the physicians should not be disregarded."

the attitude of the profession is not in opposition to the social necessities of any citizen, but rather it is based on the conviction that the attainment of any such objectives must not sacrifice the scientific and economic independence of the medical profession."

Good Use for a Fine Word

"Together is the grandest word in the English language," said Theodore Roosevelt. When Dr. Charles H. Goodrich quoted this in urging closer medicodental cooperation, he put a grand word to good use.

The diagnostic and therapeutic facilities now available to medicine and dentistry make close collaboration between the two professions entirely feasible. With the best intentions in the world, the physicians and dentists of fifty years ago had not the scientific wherewithal to work together. Today almost every new discovery tightens the relationship between medicine and dentistry. In Rushing's words, "the human body is a complete organism with the function of each part dependent on that of others."

Dietary research, in particular, has done a great deal to bring the two professions together. The importance of nutrition, both to general health and

to the healthy development and preservation of the teeth, is increasingly manifest. From the viewpoint of prevention, the dentist who prescribes a wholesome diet for the sake of the teeth helps diminish the incidence of deficiency diseases, just as the physician who prescribes a sound prenatal diet for the mother lays the foundation for healthy teeth in the child. So the dentist who discovers a focal infection in the tonsils or sinuses in the course of his examination renders another important service to medicine, paralleled when the physician's search for a focal infection uncovers disease or irregularities in the teeth.

Obviously the teeth, which play so large a role in health, cannot be dissociated from the rest of the body. The dentist and the physician must work together, for the fullest development of their respective professions as well as the welfare of their patients.

The possibilities of such collaboration have as yet barely been grazed. More frequent joint scientific sessions would suggest fruitful avenues of cooperation. So would the merging of medical and dental libraries—or reciprocal exchange of privileges—to enable the members of both professions to keep abreast of advances of mutual interest.

Prevention of Mental Illness

It becomes increasingly difficult to editorialize upon our President's addresses, yet the duty to do so devolves upon us. His address before the Fifth District Branch meeting on "Prevention of Mental Illness" must be read in the original to be fully appreciated (see page 2036). He notes the increase of unstable minds over healthy ones in proportion to the increase of the population, and stresses remedies to correct this.

We are intrigued by his statement that "a considerable proportion of our

literature, art, poetry and music are produced by psychopaths" Perhaps it is necessary to have this type of mind to produce these expressions of what is called "art," but even when produced by psychopaths, civilized man thoroughly enjoys the products of such mentality! If by curing these psychoses posterity were deprived of this literature, poetry, art, and music—would not our civilization be much poorer, exceedingly more drear and drab, and the incentive to provocative thought perhaps less?

Looking at this particular angle of the question from the commentator's standpoint we cannot deny that while we enjoy all that is implied in this art, read with avidity its literature, enjoy its poetry, have our senses bathed in the glamor of its music, or stand entranced before a statue or a painting—how happy we are that we do not have to live in close contact with the artist. The stress and struggle of daily life with one of these psychopaths is quite another matter. Of course, Dr. Goodrich is dealing by and large with the question of mental illness among so-called average people. We are indebted to him for having called attention to a field in preventive medicine too often not encompassed in programs of preventive medicine, and he deserves well of us for his masterly handling of a difficult topic

Tuberculosis Among Negroes

The National Tuberculosis Association recently has released an illuminating report¹ which merits the serious consideration of the medical profession and all others interested in the promotion of our national health. While priding ourselves upon the success achieved in our campaign against the ravages of

tuberculosis, we inadvertently have permitted an important phase of the problem to be relegated to the background.

The Association designated a committee to study and investigate the causes underlying the high mortality rate from tuberculosis which prevails among our negro population. Five years of intensive research are summarized in the published report of the Committee. Negroes in the United States constitute approximately ten per cent of our population. Nevertheless tuberculosis, seventh in rank as a cause of death among whites, is the second most important factor in the mortality statistics of negroes. Quoting from the report, "the tuberculosis mortality among the colored population now stands, in fact, at a level around which the white mortality hovered twenty-five years ago."

Northerners will receive a shock from the Committee's observation that in the southern states "the most recent data shows a much lower mortality among the colored population—less than three times that of the white population." Tuberculosis as a cause of death in the negroes of our southern states definitely has been on the decline. The reason for the continuing high mortality rate from tuberculosis among negroes must therefore be sought in the tendency of our colored citizens to migrate to, and concentrate in, urban communities. Unfortunately, the great mass of our negro populace shows no interest in the active prevention of a disease which reaps the greatest harvest from its own ranks.

Negro leadership is needed in the fight against tuberculosis. Negroes and whites are closely associated in their daily tasks and any program for the control of tuberculosis is a vital concern of both. "The Committee feels that it is impossible to over-emphasize the importance of cultivating the right kind of negro leadership." With such cooperation "one of the weakest salients in the fight against tuberculosis" will soon disappear.

¹ A Five Year Study of Tuberculosis Among Negroes, Nat. Tbc. Ass'n 1937

Scope of Insulin Therapy

Originally hailed as the remedial therapy for diabetes mellitus, insulin has been employed within the past few years, as a therapeutic measure for many pathologic conditions far remote from that which produces the clinical picture of the deficiency disease for which its use was primarily intended¹. The extension of insulin therapy to include nondiabetic conditions merits particular notice since its use in this direction is not founded upon any sound pharmacological or physiological principles. From a purely empirical basis, cardiac, pulmonary, and renal disorders have been treated with insulin and investigators report that a decided therapeutic result is evident in all of these conditions. This favorable comment holds true also for other diseases among which are included gastrointestinal, menstrual, and allergic disorders. In the limelight at present, is the remarkable effect of insulin in the treatment of certain schizophrenic states.

Since many of the abnormalities for which insulin is being administered respond exceedingly well to other therapeutic measures, the sole use of this hormone as a therapeutic agent must remain open to question. The individual case report tells us nothing. A large series of observations, however, repeatedly recorded by independent workers, must be given consideration. It is known that a mild hypoglycemia stimulates the appetite and counteracts anorexia. In pulmonary tuberculosis Spellberg and Rosenblum² found that insulin therapy enhanced gastric motility and stabilized glycogen metabolism. Consequently such disorders which are associated with a loss in body weight should be benefited by the judicious use of insulin.

Simple undernutrition and pulmonary phthisis, at this time, must be considered

as the primary indications for the extradiabetic employment of insulin. While not a cure, its use induces hunger and so, indirectly, leads to an increase in weight. In the treatment of psychoses, despite the encouraging reports which have appeared in the literature, insulin therapy must still be relegated to a select few until such time as means for its use will have become standardized. Meanwhile, the study of the therapeutic indications of insulin should be continued. One has but to remember quinine and mercury to appreciate that the empiric of today may become the specific of tomorrow.

CURRENT COMMENT

"IN WASHINGTON, D C, WHERE GOVERNMENT employees far outnumber all other employed groups, the philosophy of regimentation, socialization and arbitrary control of everybody's business might well be expected to satisfy thousands who owe their employment to bureaucracy raised to the nth degree. Running true to form 'A Cooperative,' organized among the 117,000 Federal employees located in the nation's capital city, which is governed by a committee of Congress, has recently begun to experiment with a socialized form of medical practice made available to its membership. The benefits paid for by a monthly pay envelope deduction will include the ordinary 21-day hospitalization accommodations and the preventive, as well as the curative, professional medical and surgical services of a group of physicians.

"Probably the crowning impertinence of this 'opening wedge' lies in the statement made by the management of the cooperative to the effect that no physician thus contracting for the disposal of his services may be excluded from the medical societies of the District of Columbia. This is certainly a disquieting and discomfiting demonstration of the ends to which so-called new-deal experiments may go in the conversion of private physicians willy-nilly into Federal officers and private medical practice into a *new* health system.

"How can the organized medical profession continue to discharge its obligation to apply universally the scientific stores of knowledge reflected in medical progress if its ethical codes are to be swept aside

¹ Therapeutics, *Am J Sci* 194 727, 1937
² Spellberg, M A and Rosenblum, S H *Am Rec Tbc*, 34 376, 1936

by politically-minded zealots?"—*The Pittsburgh Medical Bulletin* warns us of possible "Wedging In," and is quoted in the *St. Louis County Medical Society Bulletin* of November 5

"JUST AS THE WHILOM DANCING marsh light has ever lured the curious deeper and farther into the bog, so the pursuit of a definition of 'adequate medical care' may lead—if not into the quicksands—quite possibly into the madhouse

'The phrase has assumed all the supposed virtues of the philosopher's stone, while not thereby losing in the least the fantastic, elusive, quality of its lure. Adequate medical care now you see it, now you don't, but it must be somewhere, it must mean something! If only it could be captured, defined, it, like the philosopher's stone, could transmute the dross of poverty and misery into the pure gold that strangled Midas. But alas! Pursuit is seemingly endless, leading ever deeper into the gloomy morasses, into the how-muchness of the enough'—"*Ignis Fatuus*" states the *Westchester Medical Bulletin* of November, in the foregoing editorial

" IT IS NOT SURPRISING THAT popular opinion is being constantly misled and confounded. All the while from press pulpit and microphone, it is being fed by half-truths that conceal material facts. Propaganda is at once the principal weapon and curse of our age. It is the result largely of overspecialization of a

world, in short, that has lost its sense of general standards

"Everybody has his own pet panacea to advance to the exclusion of everyone else's. And to advocate them, nearly everybody exaggerates and distorts facts till the public is like a blind man trying to find his bearings in a room in which everything keeps moving."—Arthur Bryant tells of "The Curse of Propaganda" in *The Observer*, an English publication recently quoted in *The Digest*

"CAN AND WILL PRIVATE PRACTITIONERS take their rightful places in school health work? The answer, of course, lies with physicians and dentists themselves. In order to accomplish this objective they must make the families under their care conscious of the value of medicine. They must demonstrate conclusively that they are equally interested in the prevention as well as the cure of disease. They must counsel and advise school authorities, working with them in close harmony

"School health work is developing rapidly and is becoming more standardized because of the impetus given it recently by the United States Public Health Service and it seems to me that an opportunity is immediately at hand for the family physician. Unless he takes advantage of it he may find that at least this phase of public health activity has been lost to him."—Dr. Jerome M. Jekel writing on "The Family Physician and School Health Work" in the *Supplement* to the *Saint Louis County Medical Society* for October

THE DOCTOR'S RISKY LIFE

Adventures in the jungles or on mountain peaks have nothing on the doctor in the way of facing danger

Press reports from France tell of the fourteenth operation performed on Professor Charles Vaillant as the result of his experiments with x-ray. The professor does not think his sacrifice remarkable, according to *The New York Times*. Valiant is the word for Vaillant!

The history of medicine is particularly rich in the noble martyrdom which forswears health and life itself to bring these blessings in greater measure to the rest of the race, remarks the *New York Medical Week*. In the U. S. Public Health Service alone there are seventeen names on the honor roll of those who defied death in the

line of duty—and lost. Independent research and private practice swell the list of medical martyrs to much greater length

Not all the heroes of medicine get into the papers and people are inclined to forget the risks that even ordinary medical practice entails. Influenza, typhoid, tuberculosis are routine hazards. The high percentage of practitioners who die at an early age from heart disease testifies that even when a physician escapes dangerous contagion he pays the toll of exposure to all sorts of weather, insufficient and interrupted rest and, worst of all, constant responsibility

Contrary to the belief of those who think that all a doctor has to do is write a prescription and collect his fee, the practice of medicine is no "snap"

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

KINGS COUNTY The Woman's Auxiliary of the Medical Society of the County of Kings met at the county society building on November 9. The speaker was Dr Siegfried Block. Mrs Edwin A Griffin presided, and Mrs W Reynolds Shetterly was hostess. Dr Thomas A McGoldrick, President of the County Medical Society, was presented with a check from the Auxiliary for the Kings County Library.

ORANGE COUNTY The regular monthly meeting of the Woman's Auxiliary to the Orange County Medical Society met at the Interpines, Goshen, on November 9.

Miss Helen Watkins, Executive Secretary of the Orange County Health Association, was the guest speaker. She gave a resume of the work the Society is sponsoring in educating the public in the knowledge of cancer.

On November 16, the Health Association held a meeting of the women of Orange County to hear Dr Louis Kress, Assistant Director of the Institution for the study of Malignant Diseases, speak on "Cancer in Women."

QUEENS COUNTY At the October meeting of the Woman's Auxiliary of Queens

County, with Mrs John W Mahoney presiding, Mrs Greenspan read a review of "The Citadel," by Dr A. J. Cronin. Mrs. H. P. Mencken, chairman of the committee on revisions, brought in many important changes in the by-laws. These changes were voted on and accepted by the Auxiliary. Mrs Frank Dealy, chairman of the nominating committee, announced the slate as follows: Mrs William Lavelle, *president*, Mrs D. J. Swan, *vice president*, Mrs Sam Klein, *recording secretary*, Mrs J. Kilcourse, *treasurer*, Mrs William Godfrey, *assistant treasurer*, Mrs Thomas d'Angelo, *historian*.

ROCKLAND COUNTY The Woman's Auxiliary to the Medical Society of the County of Rockland held their first meeting of the year on October 13, at the Summit Park Recreation Hall.

SARATOGA COUNTY The December meeting of the Woman's Auxiliary of Saratoga County will be the annual election of officers and will be held with Mrs Edward J. Callahan of Schuylerville, as hostess. This will take the form of a Christmas party to which the County Medical Society has been invited.

PERILS OF OUR BEAUTY MAD GENERATION

Manufacture of new products involving risks to the consumer or the factory worker should be subject to acceptance of public health authorities before they are produced and put on the market, Dr Haven Emerson, director of public health in the College of Physicians and Surgeons, declared on Oct 20 in Columbia University's McMillin Theatre, where he delivered the memorial lecture celebrating the 100th birthday of Dr Charles Chandler, noted chemist.

"Almost daily," Dr Emerson said, "some new and secret-formula product is offered for human use and consumption, untested biologically before commercial exploitation and used widely by the ever-gullible public, avid for novelty, convenience or apparent profit, until some unsuspected but irremediable damage to the consumer has developed to warn physicians and sanitarians of a new problem in diagnosis, treatment and prevention."

The danger of poisonous cosmetics, investigated by Dr Chandler more than sixty years ago, is a problem still holding the health officer "at the mercy of the consuming public, which expects protection even in its silliness," Dr Emerson said.

"As one looks about at the cadaveric finger-tips, the enameled toe-nails, the deformed eyebrows, the filled facial creases that try to reveal character but are cheated out of it, the hectic cheek reminiscent of the fever ward of a tuberculosis hospital, the ill-assorted daubs of aniline upon the lips," he observed, "one wonders if it is worth the while of Congress to try to enact protective legislation, or health officers and their laboratories to attempt enforcement of local ordinances to save a beauty-mad generation from those qualities of cosmetics that threaten to replace the bloom of health with one more appropriate to a dish of wax fruit."

Public Health News

A four-minute trailer with sound, on the treatment and prevention of diphtheria has recently been prepared by the division of public health Education of the State Department of Health. The treatment is historical and traces the treatment and prevention of this disease from the discovery of the causative organism to the present day. The wholehearted acceptance accorded to this trailer by the picture theaters of Albany suggests that, with the

use of accompanying music and voice on the thirty-five-mm film, health educators have reasserted themselves in the commercial field of visual education.

A sound trailer adapted from the silent movie "Story of My Life by Tee Bee" is also available from the Division of Public Health Education, State Department of Health. Other trailers are being planned. Suggestions from the medical profession will be welcomed.

PNEUMONIA CONTROL PROGRAM

Plans for the fall pneumonia control work were discussed by Dr Edward S Rogers and Dr Harold W Lyall at a meeting of District State Health Officers held at Albany on November 8. Dr Rogers pointed out that at the present time only one-third of pneumonia patients who are hospitalized are having blood cultures. Since a blood culture not only produces valuable checks on typing but also is of importance in estimating the seriousness of infection and determining the direction and intensity of specific treatment, he urged that the method should be used more frequently. A blood culture may provide information concerning the incitant, when more than one type of pneumococcus has been found in a specimen of sputum.

District State Health Officers were requested to notify the Bureau of Pneumonia Control immediately whenever an epidemic outbreak of pneumonia appears. Careful observation of a large number of such outbreaks is needed in order that methods of epidemiological control may be devised. It is also important that the Central Office should know as soon as an infection with a type other than I or II becomes prevalent so that serum specific for that type may be concentrated in the area affected.

An outline has been prepared for the use of medical speakers bureaus. This outline is not intended to standardize the

doctor's presentation of the subject but only to provide a uniform background of information for medical speakers. Another mimeographed outline which is available describes "A Technique of Serum Administration."

Dr Lyall informed the district officers that sera for types V, VII, and VIII are now available in addition to the sera for types I and II. The most recent sera have been distributed to twenty-four centers from which it is believed any part of the State can receive them at short notice. Dr Lyall emphasized that sera should in no case be used without preliminary typing. With the number of therapeutic sera available, it is obvious that this is essential. The sera of types V, VII, and VIII are concentrated and distributed in packages containing twenty cc. They are standardized in comparison with control sera. No unit values for sera other than types I and II have as yet been officially established. Four packages is the dose suggested for the treatment of an average case. Laboratories approved for pneumococcus typing will be provided with sera of all types for which therapeutic sera are available. While production of therapeutic rabbit serum has been undertaken, its preparation, standardization, and clinical use are still considered in the early experimental stage, and distribution will not be commenced until adequate data are available.

A man from Galway had come over to London to consult a famous specialist. "I should like to know," said the doctor in the course of his questioning, "whether your family has been what one might call a long-lived one?"

"My family," came the reply, "is a West of Ireland one, and if you know that part of the country you will realize that the age of my ancestors has always depended entirely on the judge and jury who tried them."

Medical News

Bronx County

DR EMIL KOFFLER delivered his inaugural address as president at the meeting of the Bronx County Medical Society at Burnside Manor on Oct 20 Other topics and speakers were "Preventive Medicine," Charles H Goodrich, M D, "Future of Medical Practice," Samuel Kopetzky, M D, "American Medicine at the Crossroads," Nathan B Van Etten, M D

Broome County

DR J WORDEN KANE read an interesting paper on "Neuro-Surgical Problems with Case Presentations" at the meeting of the Broome County Medical Society in Binghamton on Nov 9 Discussion was opened by Dr Charles D Squires and Dr Louis J Bragman Resolutions were adopted on the death of Dr Sylvanus J Nunn and the retirement of Dr Charles H Cole after sixteen years as superintendent of the Broome County Tuberculosis Hospital The following names were read as Speakers on Pneumonia to the Speakers Bureau Drs B A Buell, E R Dickson, H W Davis, R C Bates, S P Carlucci, Mable Martin, Harvey Smith, John W P Love, and Vesta M Rogers The following have been appointed to the Bureau as Speakers on Cancer Dr Frank M Dyer, Dr Mary Ross, and Dr Victor W Bergstrom—*Reported by Victor W Bergstrom, Secy*

Cattaraugus County

AT THE MEETING of the Cattaraugus County Medical Society held at Olean on Oct. 26, a committee was appointed in each community in the county to speak on "Cancer and Its Prevention," before any organization desiring information The Hospital Service Corporation Plan was explained by Carl M Metzger of Buffalo and after discussion the society moved to endorse the plan of the Hospital Service Corporation of Western New York

Cayuga County

A BUREAU of Maternal, Infant, Child Hygiene has been established in Auburn in cooperation with the Medical Society of the County of Cayuga As a part of this program a refresher course in obstetrics has been conducted This course was arranged by the Council Committee on Medical Education

DR RAYMOND C ALMY was elected Coroner for Cayuga County to succeed Dr Frank L DeFurio who had been appointed Acting Coroner upon the death of Dr Alfred Hodgman

Cortland County

AT THE MEETING OF THE Cortland County Medical Society held in Cortland, October 15, Dr George M Mackenzie lectured on "The Diagnosis, Treatment and Prognosis of Bacteremia" The talk was illustrated by numerous slides prepared from the results of studies made at the Mary Imogene Bassett Hospital

Delaware County

THE DELAWARE COUNTY TUBERCULOSIS and Public Health association, in cooperation with the County Medical Society, held a social hygiene dinner meeting at Walton, Oct. 18 Dr Wm A Brumfield, director of the social hygiene bureau, of the New York state department of health, was the principal speaker, with a showing of the talking film, "For All Our Sakes"

Dutchess County

DR ROBERT E FISHER of the medical examiner's staff in New York city spoke on "Sudden Death" at a postponed meeting of the Dutchess County Medical Society in Poughkeepsie on Oct. 27 The meeting was originally scheduled for Oct 13 but was postponed because of the city's 250th anniversary celebration

Fulton County

A MEETING OF THE Medical Society of Fulton County was held in Johnstown, with thirty members attending, on Oct 21

A feature of the session was the presentation by Dr William M Cooper of a film entitled "High Ligation and Injection Therapy of Varicose Veins"

Kings County

"EPILEPSY" WAS THE TOPIC of the scientific session at the meeting of the Medical Society of the County of Kings on Oct 19 The subjects and speakers were "A Consideration of Etiologic Factors and Diag-

nostic Procedures," E. Jefferson Browder, MD, F.A.C.S. and "Surgical Excision of Epileptogenous Zones in the Brain," Russell Meyers, MD

Madison County

THE AUXILIARY OF THE MADISON County Medical Society held a dinner meeting at the Hotel Oneida in Oneida on Oct 14 and elected officers

Monroe County

MEDICINE IN ITS INCESSANT war against infantile paralysis is winning in one sector—it is diminishing the effects of the disease

So Dr James P Leake, medical director of the U S Public Health Service, Washington, told 200 members of the Medical Society of the County of Monroe on Oct 25 in the first of five post graduate lectures at the society's Prince Street home in Rochester. He spoke on "Poliomyelitis," on which he is an international authority

"We hope through public health measures," he stated, "to diminish its intensity, and particularly to diminish its effect. A great many children are taken ill but few are permanently crippled"

Despite lack of a sure cure, Dr Leake stated, there is no reason for widespread pessimism

"We are going to have poliomyelitis with us," he said. "I do not see an absolute preventative, but the severe deformities are not now present."

Parents were advised to summon a physician early if they have fears about their children. Complete rest and relaxation was prescribed. He advised against massage

In general, Dr Leake said, closing of schools is not necessary although decision must depend on local conditions. Isolation of children also was not approved, in the main, except during a severe epidemic. He advised against strenuous exercise and recommended that children be kept "up to par" physically

New York County

DR. JOHN HOWARD NORTHROP, member of the Rockefeller Institute for Medical Research, received the Charles Frederick Chandler Medal of Columbia University in Horace Mann Auditorium, Broadway and 120th Street on Oct 27

After the presentation of the medal for "fundamental discoveries concerning bacteria, the constitution of proteins, and the chemistry of digestion," Dr Northrop delivered the fourth Chandler Memorial lec-

ture, in which he described his researches at the Rockefeller Institute's department of animal and plant pathology at Princeton, N J

Dr Northrop, who is the sixteenth scientist to receive the medal since it was established in 1910, was the first to isolate the digestive enzymes, pepsin, and trypsin. He also succeeded in isolating a nucleoprotein which has the properties of bacteriophage, a living organism capable of dissolving bacteria. His research made it possible for Dr W M Stanley, of the Rockefeller Institute, to isolate in crystalline form the virus for the tobacco mosaic disease, which may have far-reaching significance in understanding diseases due to different viruses

Dr Northrop was born in Yonkers on July 5, 1891. He was the great-grandson of Frederick Christian Havemeyer in whose memory Columbia's Havemeyer Hall with its chemical laboratories and lecture rooms was built.

DR. SIGMUND POLLITZER, dermatologist, who died on Nov 1, had practiced medicine more than 50 years. He had his MD from the College of Physicians and Surgeons of Columbia University in 1884, and served as a surgeon in the Serbian Army in the Serbian-Bulgarian war of 1885-6. He was a major in the medical corps of the U S Army in the World War. He was president of the American Dermatological Association in 1914-15.

THE PHYSICIANS WIVES LEAGUE of Greater New York, Mrs William Robinson president, held a dinner dance at Delmonico's, Manhattan, on Nov 27. A tea was held at the home of Mrs S J Wilson of 910 Park Place, Brooklyn, on Nov 3

Onondaga County

DR. O W H MITCHELL is nominated for president of Onondaga Medical Society for 1938. Others scheduled for election at its next meeting Dec 7 are Dr Leon E Sutton as vice president, Dr Dwight V Needham as secretary, and Dr James F Cahill as treasurer

Two censors will be chosen from these nominees: Dr Joseph R. Wiseman, Dr Edwin H Shepard, Dr P E Menzies and Dr Wardner D Ayer, to fill the expired terms of Dr Shepard and Dr C D Post. Named to be elected as delegate to the state society meeting is Dr John J Buettner, and as delegates to the Fifth district branch meeting, Dr George L Wright and Dr Raymond J Pieri

DR JULIUS H HESS, child specialist from Chicago, gave an illustrated talk on "The

Care and Development of Premature Infants" at a meeting of the Onondaga Medical Society on Oct 28 in Syracuse

Dr Hess, who is professor of children's diseases at the University of Illinois Medical School and staff consultant at six Chicago hospitals, was accompanied by State Commissioner of Health Edward S Godfrey, Jr., and Dr Elizabeth Gardner, both of whom spoke on the program

Ontario County

A STRIKING FEATURE of the Canandaigua *Daily Messenger* of Oct 26 was a "Medical Section" of six pages, devoted to the doctors and hospitals of Ontario County. The leading article was a history of the County Medical Society by its Secretary and Treasurer, Dr D A Eiseline. Dr F C McClellan, President of the County Society, was author of an equally prominent article surveying various county medical organizations and activities. Several columns were given to the County Public Health Nursing Service and to the county campaign against tuberculosis. An article by Dr Morris Fishbein on fake cancer cures filled a quarter page. Pictures of local physicians were sprinkled through the supplement.

Putnam County

DR MAURICE LENZ, Chief of the Department of Radiation Therapy at New York Presbyterian Hospital, spoke before the Putnam County Medical Society at the regular monthly meeting, held November 3, at Carmel Country Club. Doctor Lenz's subject was "Radiation Therapy in Cancer"—*John T Jenkin, Secy*

Queens County

SUPPORT OF THE "Cavalcade of Sensations," variety revue and circus sponsored by the Queens County Cancer Committee, is urged upon Queens residents by Dr Mandel Weinstein and John H Schleif, chairman and treasurer, respectively, of the committee in a special Cancer Crusade Week appeal.

The "Cavalcade," which will feature stars of the stage, screen and radio, will be presented on December 2, 3, 4, and 5 at the Jamaica Armory.

DR WILLIAM METCALFE STONE, who had practiced in Flushing since 1900, died at Columbia-Presbyterian Medical Center on Oct 29. During the World War Dr Stone was medical director for the draft board in Queens. At his death he was medical

director of Flushing Hospital and Dispensary.

DR JOHN J KINDRED, who died in October, was a member of Congress for ten years and was identified with medical legislation at Washington and obtained large grants for local improvements. Press accounts recall that Dr Kindred often made the *Congressional Record* read like a supplement of a medical journal. He once converted the entire House into a class for a lecture on trachoma.

He was the founder and operator of two sanatoria for mental diseases and once owned a monkey farm in Florida, where he intended to conduct experiments in rejuvenation through the use of monkey glands. At his death he was professor of medical jurisprudence at John B Stetson University, Deland, Fla., and was consulting physician at St John's Hospital, New York City Children's Hospital and Kings County Hospital.

Dr Kindred was admitted to the practice of both medicine and law. In 1927 both he and his wife, Ella Welbon Cramer, a Vassar graduate, were admitted to practice before the Supreme Court.

That same year he read into the *Congressional Record* an eight-page survey on the use of monkey glands for rejuvenation.

Rockland County

DR CHARLES DEMAREST KLINE, who died Nov 3, was a past president of the Rockland County Medical Society and of the First District Branch of the State Society, and had served also as vice-president of the state body. He was health officer of Nyack for forty of the forty-three years since the post was created.

Steuben County

THE ANNUAL MEETING of the Steuben County Medical Society was held at Bath, November 11. The following officers were elected for the ensuing year: *President*, A E Richmond, MD; *Vice-President*, Roger Haggerty, MD; *Secretary and Treasurer*, R J Shafer, MD; *Censors*, M A Place, MD, James Sanford, MD, L A Thomas, MD, S H Bean, MD, E P Smith, MD; *Delegate* (Second District), L M Kysor, MD (2 years); *Alternate Delegate*, Glen Whiting, MD.

Dr L A Thomas, Chairman of the Workman's Compensation Committee, discussed the proposed fee schedule for upstate New York. The following motion was

unanimously adopted by the Society "The Steuben County Medical Society protests any fee cut from the fees established for the Metropolitan area in 1935 for the medical treatment and care of injured employees and recommend a uniform fee schedule for the entire State of New York."

Dr Morton L Levin, representing the subcommittee from the State Cancer Commission, addressed the Society on the Cancer Survey which is being undertaken in Steuben County.

Dr James Cole read a paper on "The Surgical Treatment of Bone Tuberculosis." Dr John M Swan read a paper on "The Function of a Cancer Committee in a General Hospital"—*R J Shafer, M D, Secy*

Suffolk County

AT THE ANNUAL MEETING of the Suffolk County Medical Society, held on October 18 at Riverhead, the following officers were elected for the ensuing year *President*, Earl M McCoy, M D, *First Vice-President*, W W Gardner, M D, *Second Vice-President*, Roger Dexter, M D, *Secretary*, Edwin P Kolb, M D, *Treasurer*, Grover A Stillman, M D, *Censors*, Paul Nugent, M D, F McGilvery, M D, W Eller, M D, Victor K. Young, M D, L Barber, M D

Warren County

DR. MANFRED SAKEL of Vienna, was guest speaker at a meeting of the Glens Falls Academy of Medicine on Oct. 29 in the auditorium of the Crandall Library. His subject was "The Pharmaceutic Shock Treatment of Psychoses and Its Mechanism." The Albany Medical College cooperated in arranging the program.

Westchester County

THE ANNUAL MEETING of the Medical Society of the County of Westchester was held at New York Hospital, Westchester Division, on Nov 16. Brief addresses were made by the retiring and incoming presidents. Officers were elected as follows:

President, Dr Erich H Restin, *Vice-President*, Dr Ralph T B Todd, *Second Vice-President*, Dr Henry J Vier, *Secretary*, Dr Merwin E Marsland, *Treasurer*, Dr James G Morrissey, *Censors*, Dr Morley T Smith and Dr Roy D Duckworth, *Delegates* (Two Years), Dr Merwin E Marsland and Dr Laurance D Redway, *Alternate Delegates* (Two Years), Dr Harry Klapper and Dr George C Adie

AT THE MEETING ON October 19 Dr Will

Cook Spain, associate physician at Post-Graduate Hospital and chief of its Allergy Clinic, presented a paper on "Bacterial Allergy" and Dr George Flamm, attending physician at Cumberland Hospital and an attending physician in Allergy at the Roosevelt Hospital O P D presented an illustrated paper on "Pollen Allergy." Dr Flamm brought with him a most interesting film showing in colors, the more common trees and plants whose pollens are of interest to the allergist and also showing methods of diagnosis and treatment. Dr Andrew A. Eggston and Dr Henry B Wightman opened the discussion and those who participated in the general discussion included Drs Virginia Langworthy, Dorothy Lang, M DeM Touart, Arthur F Heyl, and Fairfax Hall.

A resolution to amend the By-Laws and provide for an increase in the amount of the annual dues was carried by a considerable margin over the required two-thirds vote, after a lengthy discussion.

THE WESTCHESTER COUNTY MEDICAL SOCIETY has appointed a Special Committee on Hospitals under the chairmanship of Dr Ralph T B Todd, the Society's Second Vice-President.

This Committee is to be representative of every general voluntary hospital in the county. In a letter announcing this Committee, the Society's President, Dr Morley T Smith, stated that the duties of this Committee would be:

"1 To study the report and recommendations of the Hospital Survey for New York, as they apply to the organized care of the sick in Westchester County.

"2 To study and report on all local and general hospital problems that are of concern to the medical profession throughout the County."

Dr Smith stated further that "the field of activity charged to this Committee is obviously a very important one presenting a great opportunity for service both to the profession and to the public."

The Hospital Survey for New York recommended that a "permanent representative and authoritative planning group" be established in each of the metropolitan counties which could "review and pass upon all proposals for major capital expenditures in the interests of organized care of the sick, especially those for increasing the bed capacity of voluntary municipal and county hospitals." It is expected that the Medical Society's Committee may eventually be the nucleus of such a planning group for Westchester County.

Hospital News

Cross Infection in Children's Wards

WHAT GOOD DO WE DO "a cute little feeding case" when we "lean over his bed and laugh and talk and spray him with assorted droplets containing probably several varieties of streptococcus, pneumococcus, etc?" This rather disquieting picture was presented before the Children's Hospital Section of the American Hospital Association Convention at Atlantic City in September in a paper by Dr Philip S Barba and Dr John C Williams of the Germantown Dispensary and Hospital, of Philadelphia, now published in *Hospitals* (Chicago)

Or "how kind is the nurse to a colicky baby who picks him up after she has leaned on the infected side-bars of a crib containing a child with streptococcus mastoiditis?" Or, even if the nurse is careful, "frequently we have seen a nurse wash her hands and don a gown to help a resident or visiting physician go over a patient, while the doctor, unwashed and ungowned, sits on the edge of the child's bed and then passes on to the next case" These doctors confess that they have "had the unfortunate experience of having a newborn contract tuberculosis from a nurse, and of having an attractive child with a mild secondary degree burn contract scarlet from a solicitous pupil nurse who developed the disease a few hours after carefully feeding the child his supper"

Intensive Course for Nurses

Such unfortunate happenings lead these authorities to recommend complete physical examinations and tests of every attendant who might convey contagion to the little patients, and to urge a course of immunization treatments, carried as far as practicable. Some hospitals feel that the reactions are too severe to warrant complete immunization against diphtheria, scarlet fever, and typhoid. Most important, basically, is the education of the nurse in preventing infection. Say the authors of this paper

The nurse should receive an intensive course in hygiene before she is allowed to enter the wards

How can we expect these girls to know anything about infection until they have been taught? Even after years of experience we find doctors as well as graduate nurses making the most obvious slips in technique. Apparently familiarity does breed contempt, especially if we can find some one else to be the goat when we try to explain our serious accidents

We feel that practical teaching is the most important. Have them touch an agar plate, or cough on plates, or talk to a plate. Let it incubate, then show them what growth is possible from an apparently harmless contact. Such demonstrations may set up phobias in a few of the girls, but it will save a host of infections if the possibility of transmission is well planted, and then carefully cultivated through the following years

If a wave of cross infection should start in a ward the personnel should be carefully examined for carriers. Aseptic technique, if not already in use, should be instituted to a degree needed in operating room technique. Extra nurses should be put on duty if necessary

Certainly if we can afford to spend hundreds of dollars for antitoxin or for serum we can afford to spend the few dollars necessary to provide adequate nursing. Why should children die as the result of factors readily controlled by the use of proper hospital technique?

Little Patients May Exchange Germs

So much for cross-infection by the nurses. But there is equal danger that the little patients may infect each other, for the child who is admitted with this or that ailment may also be just coming down with something else, or just recovering, and may spread it broadcast. This side of the problem was presented before the Section on Public Health and Hygiene of the Illinois State Medical Society by Dr Maurice L. Blatt, of the Cook County Hospital in Chicago and St. Vincent's Orphanage

The precautions taken at these institutions are thoroughgoing. First, of course, the child passes through the examining room for a complete history and physical examination and such laboratory work as is vital, so that the child applying for admission with pneumonia, bronchitis, upper respiratory tract infection or any other ailment may be segregated, if found to

have chickenpox, measles, whooping cough, scabies or any other infectious disease

The next step is to inject twenty to thirty c.c. of its father's or mother's blood "No child is admitted to the general hospital, no matter what his disease, unless he is given whole blood from a parent Wassermann and Kahn tests are done on parental bloods before administered, except in emergency" Says Dr Blatt "It is our belief, based upon our experience with measles, chickenpox, and whooping-cough, that immune bodies exist in the blood of most adults, immune bodies not only to those diseases whose organisms are known, but to other diseases such as the common cold, and perhaps some types of streptococcic infection We believe that by so injecting our incoming patient we can produce a degree of passive immunity equal to the injection of one-half the same amount of normal human serum into the same individual Furthermore, we believe that in rheumatic infections, in the endocarditides, in choreas, in pneumonias or influenza, the giving of whole blood in this way is in no way harmful, does not produce shock, and seems to us to be beneficial"

A contagious disease card is made out for each child, showing dates of previous contagious diseases and immunizations In

this way, if infectious diseases start, one recognizes immediately which child needs protection

Fond Parents Fended Off

Visitors are discouraged Even the fond parents can view their offspring only through glass windows Masks are worn by the nurses As we learn

Masks are valuable in a Children's Hospital A number of infections of the respiratory tract decrease in those departments of the hospital in which masking of nurses and attendants is strictly enforced

Our experience with the impervious deflecting mask at St Vincent's Infant and Maternity Hospital has warranted its use for the past three years Nurses in the premature ward at the County Hospital are constantly masked—no one is allowed in the ward unmasked

The discomfort and inconvenience of the common gauze mask is in a large measure overcome by the form fitting cellophane mask.

As to specific immunization one cannot say too much As the general trend of active immunization of the populace outside of the hospital increases, to just that degree will the hospital cross-infection decrease As diphtheria immunization, scarlet fever immunization and whooping cough immunization increase in the general populace, through the efforts of the pediatrician and the public health official, to just that degree will the percentage of cross-infections in these diseases fall, and it is on the future of preventive inoculation that we pin our greatest hopes

Risks of Explosion in Anesthesia

IT IS UNFORTUNATE THAT many of the anesthetic agents in use at the present time are inflammable and are therefore liable to explode under certain conditions, says *The British Medical Journal* While anesthetic explosions are relatively infrequent they are very alarming for everybody concerned when they do occur Coste and Chaplin of the London County Council recently carried out some investigations to discover what conditions render these vapors explosive They found that a mixture of ethyl chloride and air is inflammable when the proportion of ethyl chloride in the mixture lies between five and twenty per cent, and in the case of ether vapor and air a concentration of two to eight per cent can be ignited

If ether vapor is mixed with nitrous oxide the risk of explosion is doubled, as any concentration of ether between 15 and sixteen per cent is inflammable, much the

same is true of oxygen and ether It was also found that the vapor produced by bubbling oxygen, with or without nitrous oxide, through ether in a Boyle's machine or Shipway's apparatus produced a very inflammable mixture, even if the gases were passed through the chloroform bottle as well it was still possible to explode the mixed vapors

On the other hand, the risks of explosion in the course of open ether anesthesia were found to be very slight Samples of air taken at a distance of two inches from the patient's mouth contained too small a percentage of ether to ignite, even after the anesthetic had been in progress for one hour and ten ounces of ether had been used

Both ethylene and acetylene have proved explosive when mixed with oxygen for the purposes of anesthesia, and cyclopropane, too, is a potential source of danger

This is, of course, only one side of the problem. Of even more importance to the anesthetist is the source of the spark which may explode the anesthetic mixture. A red-hot cautery or a diathermy electrode is an obvious danger, especially when used in or near the mouth. Less obvious are the risks attached to the use of electric light bulbs on esophagoscopes or bronchoscopes. If these bulbs are loose or if the insulation is faulty a spark may arise, at least two explosions appear to have been caused in this way. A hot dental needle has also been responsible for an explosion, though the temperature of the metal was below that required to produce red heat.

Lastly, there are the sparks produced by static electricity. Several writers have

drawn attention to the possibility of the frictional electrification of equipment used in operating theatres. Considerable static voltages were produced and regarded as creating a serious risk of anesthetic explosion, merely by the movement of blankets over metal operating tables.

The rubber wheels of trolleys, etc., often provide insulation enough to allow dangerous charges to accumulate. One way to prevent this accumulation is to earth the metallic parts of the equipment by a light chain trailing on the floor. Another method is to use electrically conducting rubber for tires, tubing, breathing bags, etc. Samples of such rubber have been made and its use should go far to eliminate the danger of explosions.

Newsy Notes

IT HAS BEEN FOUND THAT of 3,151 attending physicians in New York City on outpatient services only, but 109 or 3.5 per cent were paid in 1935, and of the 18,636 positions on hospital staffs in New York City the occupants were paid some salary in only 8.3 per cent of the cases.

A SURVEY SHOWS THAT few hospitals make any provision for the perpetuation of their property investment by creation of a depreciation reserve fund to cover normal wear and tear and obsolescence. When plant or equipment needs renewal, nothing has been laid by for it. In any other work this precaution is considered elementary.

DR HAVEN EMERSON SAYS in *Hospitals*: "The most important lesson which it appears to me has been learned from the Hospital Survey for New York is that the cost of care of the sick is too much for the sick alone to carry. The well should expect to pay for the care of the sick. The great benefits of voluntary collective thrift, and a reasonable regard for the expected and inevitable hazards of life combine to persuade each of us to set aside while in health and in our years of productive ability, those sums which will secure for us good care in illness."

"No single device of organization to facilitate individual investment in institu-

tional care of sickness promises so much as the pre-payment plan now so well established among the voluntary hospitals of many of our cities, and generally in Great Britain."

A BILL REQUIRING LICENSING of all New York State nurses, those fully qualified to care for acute cases, as well as practical nurses to care for convalescents or chronic cases in the home, was the subject of lively discussion at the meeting of the New York State Nurses' Association recently at Lake Placid.

Marion Sheehan, director of the division of public health nursing of the state department of health, outlined the proposed bill to the convention delegates and described its purposes.

The bill, she declared, will define what constitutes the practice of nursing and set up a system of penalties to be imposed upon those found practicing without a license so that "the full protection of the law can be assured the public."

Among liberal features suggested was one permitting all qualified out-of-state nurses to register in New York State upon presentation of credentials satisfactory to the state education department.

"WHEN WITHIN A SHORT PERIOD two patients made claims upon the hospital for

the loss of false teeth, we realized something had to be done to prevent such property from being thrown out unintentionally by nurses and maids. Our solution was to provide ointment jars (3 inches high, 3½ inches in diameter and costing 9 cents each), one of which was placed in every patient's medicine cabinet or bedside stand. On the outside of the jars was stenciled in letters ¾ inch high 'Dental Work Only'. This has proved an obvious reminder that artificial dentures should be placed in the special container. In nearly five years since these were installed, no complaints have been registered."—F. Stanley Howe, director of Orange Memorial Hospital, Orange, N. J., in *The Modern Hospital*.

THE THIRD ANNUAL DINNER of the visiting staff of physicians and dentists of the Queens General Hospital, Flushing-Hillcrest, was held at the North Hills Country Club, Douglaston, November 16.

Three hundred visiting staff members attended. Dr. Carl Boettiger, president of the medical board and director of medicine, and Dr. Marcus D. Koegel, medical superintendent of the hospital, spoke.

A CLINICAL SOCIETY has been formed at St. Joseph Hospital at Lawrence by hospital and local physicians, and will hold monthly meetings throughout the year.

PHYSICIANS OF THE HERKIMER Academy of Medicine have asked the Herkimer Memorial Hospital board to create a hospital staff of sixteen members. The hospital never had an official staff, say physicians, and therefore was never officially recognized by the American College of Surgeons. The purpose is to obtain recognition of the hospital nationally and to guarantee a high grade of medical ethics.

AN ALL TIME HIGH in the number of patients treated in New Rochelle Hospital was recently reached when the daily census of the hospital, which has a capacity of 147, advanced to 189 patients.

THE UNITED HOSPITAL CAMPAIGN Committee recently issued two statements pertaining to Bronx hospitals.

One was that Montefiore Hospital, Gun Hill Road, and Bainbridge Ave., is the best-equipped of all voluntary hospitals in the New York metropolitan area for the treatment of chronic diseases.

The other was that 'Bronx hospitals are not provided adequately with medical social service departments.'

"SUPERINTENDENTS WILL DO WELL to stand around their hospitals occasionally with their hands in their pockets and watch the wheels go around. Superintendents of the sex who have no pockets will have to do something else with their hands, but the point is—stand around once in a while with nothing particularly on your mind and see what the others are doing"—Will Ross in *Hospitals*.

YONKERS PROFESSIONAL HOSPITAL celebrated its fifth anniversary with a dinner dance at Arrowhead Inn, Riverdale, which was attended by 250 physicians, nurses and their guests, on October 19.

Dr. John A. Faiella, Deputy Public Health Commissioner and president of the hospital, was chairman of the dinner committee. He was assisted by Dr. Al Amandes Morrone.

In a brief message of greeting contained in the souvenir program, Dr. Faiella cited the rapid growth of Yonkers Professional from an institution of twenty-six beds and a personnel of six, to one of 123 beds and a personnel of sixty-eight, "an increase of over 500 per cent in the past five years."

THE JEWISH HOSPITAL of Brooklyn was given an oil painting of Dr. Adolph Bonner and a bronze plaque of Dr. John Linder on November 3 at the Leon Louria Auditorium in honor of their service as members of the medical staff.

DEPARTING PATIENTS OF THE Methodist Episcopal Hospital in Brooklyn carry away menus of the hospital meals as souvenirs. "I want my friends to see what good food they gave me," explained one patient.

Medicolegal

LORENZ J. BROSNAN, Esq

Counsel, Medical Society of the State of New York

Medical Societies—Power and Right to Enforce By-Laws

An interesting case involving the power which a medical society may exercise over the conduct of its members recently was decided by the highest Court of one of the States on the Pacific coast *

The action was brought against the K. County Medical Society, a constituent of the State Medical Society in that jurisdiction which in turn was one of the constituent societies of the American Medical Association. The purpose of the suit was an attempt to recover damages from the defendant Society, and the codefendants K. County Medical Service Corporation, and certain officers and members of the Society and of the Corporation, upon charges that they had induced Doctors S and M, of the County Society, to breach a contract entered into between them and the plaintiffs.

The action was disposed of in the lower Court, and the appeal was determined upon a record which took into consideration only the allegations made by the plaintiffs. The defendants addressed an application in the nature of a demurrer to the plaintiffs' charges in order to test the case upon the theory that insufficient facts to constitute a cause of action had been alleged, assuming the truth of all of the plaintiff's charges.

The fact situation, therefore, which will be summarized in some detail, is taken from the complaint, and may not conform in all respects to the facts that would have developed had the defendants in the case ever been called upon to give their version of what had transpired.

The K. County Medical Society embraced nearly all the physicians practicing in the locality, and according to the charges, the Society had created for its members a virtual monopoly of the medical profession, controlling fee schedules and dominating the professional practice of its members, and in various ways controlling their conduct by threats of discipline or expulsion.

It seems that two physicians, S and M, members of the Society, had about twelve years before organized what was called the

Associated Physicians Clinic, and had engaged in group medical contract practice with various large business firms. They had undertaken to furnish medical and surgical care and hospitalization to employees of such firms at one dollar per month per capita. The plaintiff, P, it seems, had entered into a contract with Drs S and M whereby he was employed as manager of their contract department. His duties were to secure new contracts, to collect fees, and generally manage the business end of the venture. P claimed that the contract was a profitable one for him and that it was intended to continue for an unlimited term.

The defendants at all times had been opposed to independent clinics of the type so conducted, and it was claimed were so opposed to such contract practice as "it tended to injure the monopoly enjoyed by the society and its members in the medical profession and practice, and tended to deprive members of the society of much of their exorbitant and excessive fee practice." It was claimed that about two years before the suit was started defendants began a concerted movement to destroy such contract practice, with the result that Drs S and M, subsequent to the action taken by the defendants, committed in furtherance of a conspiracy, abandoned their practice and in so doing were obliged to breach their contract with P.

It seems that the Society had organized its own group clinic under the corporate name of K. County Medical Service Corporation. The charges alleged that such clinic was identical to the Associated Physicians Clinic with which P was connected. It was also claimed that the defendants had induced an able and trusted employee who had worked for the Associated Physicians Clinic to desert the Clinic and work for the Society's corporation.

The Society had during its alleged campaign against independent clinics passed an amendment to its by-laws tightening up on the matter of discipline of members. The by-law in question, after stating various routine grounds of discipline, provided that a member "who shall engage in contract practice unless the same shall previously have been authorized by the Board of Trus-

* Porter v. Medical Society 58 Pac (2nd) 367

tees of the Society, or who as physician or surgeon shall serve on the staff of, or shall perform work in any institution or group or organization unless such services or work shall previously have been authorized by the Board of Trustees of this Society, or who as physician or surgeon shall serve on the staff of, or shall perform work in any institution or group or organization unless such services or work shall previously have been authorized by the Board of Trustees of this Society shall be liable to censure, suspension or expulsion"

Shortly after the passage of the said amended by-law, it seems that the Society threatened to expel Drs S and M unless they abandoned their contract practice including their contract with P and demanded that they should turn over to the Society and its subsidiary clinic all their books and records relating to their practice as the Associated Physicians Clinic. The said physicians at first refused to comply. Shortly a certain Dr C, who was a leading member of the Society, (named as an individual defendant in the action) filed written charges signed by some thirty other members against Drs S and M accusing them of unethical conduct in violation of the by-law referred to and seeking their expulsion from the Society.

Shortly after the charges were so filed, S and M abandoned their agreement with P and gave up their contract practice.

Both the lower Court and the Appellate ruled that the foregoing failed to state a cause of action against the defendants. In affirming the judgment of dismissal, the Appellate Court said in its opinion

The constitution, charter and by-laws of the medical society constitute a contract between the members of the society which the courts will enforce if not immoral or contrary to public policy or the law of the land. That is to say, Doctors S and M, under their contract with the medical society, were required to obey the by-laws of the society or by breach thereof

subject themselves to the penalty of suspension or expulsion from the society. It is not at all material how selfish or unselfish the objects of the medical society are if same are legitimate. It cannot be successfully contended that the medical society did not have the right to adopt the by-law in question. Whether such by-law or rule was just, reasonable or wise is a question of policy which concerns only the medical society and its members. The medical society, in the enforcement of its by-laws for the direct purpose of benefit to itself and to its members is not answerable for damage incidentally resulting to a third person. So long as one remains a member of the medical society, such member can be compelled under his contract with the society to obey the laws, rules and regulations of the society or suffer the penalty of fine, suspension or expulsion.

The weight of authority is to the effect that in pursuing its legitimate objects an association has the right to coerce a member by fine, suspension or expulsion, and the association will not, nor will its members, be liable in damages to those who may be directly or indirectly injured by such efforts. So long as a member remains in the association, he is subject to the coercive effect of a penalty exacted for breach of a by-law of the association. If he does not desire to abide by the obligations of his contract of membership, he may abandon his membership. No right of appellants, who were non-members, was invaded by the respondent medical society when it established its code of ethics and insisted upon compliance therewith through threat of expulsion of an offending member. We agree with counsel for respondents that, viewed as an association engaged in promoting the interests of its membership, the enforcement of solidarity by threat of expulsion of one of its own members creates no cause of action for the incidental damage resulting to an employee of that member who has a contract of employment "for an unlimited term."

It is interesting to note that in so ruling the Court cited a number of cases, as authorities for its decision, which dealt with the powers enjoyed by labor unions to control the actions of their members.

MISSISSIPPI VALLEY MEDICAL SOCIETY AWARD

The Mississippi Valley Medical Society offers a cash prize of \$100, a gold medal and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be ethical licensed physicians, residents of the United States, and graduates of approved medical schools. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society (September 28, 1938), the Society

reserving the exclusive right to first publish the essay in its official publication—the *Radiologic Review and Mississippi Valley Medical Journal*. All contributions shall not exceed 5000 words, be typewritten in English in manuscript form, submitted in five copies, and must be received not later than May 15, 1938. Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W C U Building, Quincy, Ill.

Across the Desk

A Medical Famine in the Great Open Spaces?

"Do you have any doctors around here?" asked a traveler in a remote wilderness region of the Ozarks

"Hell, no, we don't want no doctors," replied the bewhiskered native, shifting his tobacco from one corner of his mouth to the other

"What do you do when somebody is sick?" said the traveler

"We give him a good drink of whisky"

"Suppose that doesn't do him any good, what then?"

"Then we give him another drink"

"And what if that doesn't help him?"

"We naturally give him another"

"And if that doesn't make him better?"

"Stranger, if a man is so sick that three drinks of whisky don't do him no good, then nobody can't do nothing for him"

This simple and direct medical philosophy, which requires no long years of study in medical school, and no messing and fussing around with test-tubes in a laboratory, prevails in some areas where the population is too sparse to support regular physicians. But it has been seized upon by our eloquent socializers who would immediately have the government organize a rural medical service to care for these neglected denizens of what are sometimes styled the sticks

Scrutiny Shows Up the Facts

Every doctor is naturally in full sympathy with the belief that every sick person in the United States should have the benefit of medical care, but it also happens that every doctor is of a scientific turn of mind, so the level-headed men of the Bureau of Medical Economics of the A M A have taken the trouble to explore this situation with the same care that the surgeon takes to find the infection that perils the life of his patient

It turns out that there are 241 counties scattered through thirty states which had 2,000 or more persons for each physician in 1936. These are the counties, then, if any, that would need a relief corps of government doctors. The ratio of one doctor to 2,000 population was used because the Committee of Hygiene of the League of Nations

set this figure in 1931 as the minimum for efficient rural medical service. A little investigation, however, makes one wonder if these counties are so badly off, after all. The boasted British system, it seems, permits a physician to have 2,500 persons on his "panel," besides others for whom he cares as private patients, and in Sweden, with its special regulations for rural medical care, the average number of persons per physician for the entire country is 2,660. Indeed, it appears that "in no European country having any considerable rural population with systems of state medicine, compulsory insurance or special provisions for rural districts has this ratio of 2,000 persons per physician been reached for a majority of the rural sections"

Plenty of Doctors Within Reach

We must not forget, either, that every such county is surrounded by other counties, which may have plenty of doctors, so that in these days of telephones, automobiles and splendid roads, it may have an entirely adequate medical service. Take the thirteen counties in Florida with more than 2,000 people per physician. Neighboring counties within fifty miles have thirty-four hospitals with 2,633 beds, of which only 1,433 were occupied in 1935. Certainly no one can complain of a scarcity of medical facilities there. In Kansas the six counties with few resident doctors do not in any case border on each other, so that all have other well-supplied counties in easy reach, and, we find, the hospitals in the adjoining counties were less than half filled in 1935. To send more doctors into these counties might merely be taking the bread from the mouths of doctors already there, without bettering the local medical situation in the least.

People, too, who inhabit the back districts are often backward in their medical customs and beliefs. We are reminded by the Bureau of Medical Economics that an ignorant, illiterate, and socially backward community will prefer patent medicines, home remedies, witch doctors, quacks, or cultists even when its residents recognize that they are sick.

Sometimes they accept sickness as fate and do nothing about it—whole sections of the population had be to educated to the fact that they were suffering from hookworm disease before they saw any need of medical service. Ignorant mothers often summon untrained local midwives in preference to trained obstetricians, and doctors in the counties that were studied report that patients wait to call a qualified physician until they have exhausted the resources of nostrum and home-made medication.

America Leads the World in Medical Care

Secretaries of state medical societies are unanimous in reporting that no complaints as to lack of medical service and practically no requests for additional physicians have been received from these counties supposed to be suffering from a medical famine. Present indications are that these counties are getting all the medical care they demand. If doctors are scarce in "bush" regions, we must remember that a great general movement of the people from the country to the city has been in progress during the past fifty years, and it is only natural and inevitable that the doctors should move with the population.

Despite all this, however, there is no sign that rural health has been neglected, and there has been no time in recent decades when there were not more physicians per unit of population in the United States—and in both urban and rural districts—than in any other country on the globe. It is a well-known fact that many doctors who have moved from country locations to nearby cities have kept all their rural patients, and, thanks to the automobile and good roads, can take as good care of them as before, or even better. Sometimes the doctor's prestige and practice in the countryside are increased by his new city address and hospital connections.

Acid Test Tells

An acid test of medical efficiency is the death rate, and if these rural counties are suffering so frightfully for lack of medical care, then it should show up clearly in the mortality statistics. The interesting fact, however, as pointed out by the Bureau of Medical Economics, is that these counties have lower death rates than their states at large. In Alabama, for instance, "the

recorded rate is actually lower in the majority of these counties than in the state as a whole," and "if there is any lack of medical service in these counties, it is not reflected in the death rate." In Florida only two of the thirteen counties studied have a death rate higher than the state average, and in nine the rate is below the rural state average. State after state show the same thing. In Kansas the average death rate is 103, while the rates of the six counties suffering a dearth of doctors are 74, 38, 45, 49, 66, and 5 per 1000.

Many others might be cited. The simplest explanation seems to be that the old-time law of supply and demand is here working before our eyes—the doctors go where they are needed most, in city and town, where the incidence of morbidity and mortality is heaviest, and do not stay where they are least needed, in regions where the people live and work in the open air and sunshine, eat plain food, go to bed early, and retain their health and vigor.

A Story from Mexico

The experiment of providing state medicine for the rural population is being tried in Mexico, we learn from an interesting article in the *Virginia Medical Monthly*. In Mexico, it seems, ninety per cent of the population live in the country, while ninety per cent of the doctors are to be found in the cities, so the government is providing medical service for the rural population. Several different plans are in force in different parts of the country. As a large part of the population are of Indian or mixed blood, the doctors encounter some curious situations.

A young doctor who was sent to a village in southern Mexico danced with a betrothed Indian girl with flashing eyes and dazzling smile. A big row ensued, as the jealousy of her man was roused, and the engagement was broken off. In the emotional upset that followed, we are told, the girl tried to kill herself, but only fractured her femur and pelvis. Under government medical and surgical treatment the fractures healed, but she failed to walk. Treatment for her hysteria was of no avail.

Finally the family called in the village medicine man, who danced about the girl's bed, uttered his mystic incantations, and ended by making a bonfire of the young doctor's undershirt. He then told the girl

to rise and walk, which she did, completely cured. If the plan of the medical reformers in this country is to send our promising young M.D.'s out to compete with the local

quacks, cultists and voodoo performers of the wilder regions, perhaps it would be well to include in each kit a dozen spare under-shirts.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Some Fundamental Aspects of the Cancer Problem. Symposium Sponsored by the Section on Medical Sciences of the American Association for the Advancement of Science. Edited by Henry Baldwin Ward. Quarto of 248 pages, illustrated. New York, The Science Press, 1937. Cloth \$2.50.

Recent Advances in the Study of Rheumatism. By Frederic J. Poynton, M.D. and Bernard Schlesinger, M.D. Second edition. Octavo of 380 pages, illustrated. Philadelphia, P. Blakiston's Son & Co., Inc., 1937. Cloth, \$5.00.

Dextrose Therapy in Everyday Practice. A Survey of the Literature, 1900-1936 on the Experimental and Clinical Studies Applicable to Medicine and Surgery. By E. Martin, Sc.D. Octavo of 451 pages, illustrated. New York, Paul B. Hoeber, Inc., 1937. Cloth, \$3.00.

Maternal Deaths—The Ways to Prevention. By Iago Galdston, M.D. Octavo of 115 pages. New York, The Commonwealth Fund, 1937. Cloth, \$75.

Baby Epicure. Appetizing Dishes for Children and Invalids. By Elena Gildersleeve. Duodecimo of 141 pages. New York, E. P. Dutton & Company, Inc., 1937. Cloth, \$1.75.

To the kitchen-untrained male, this seems like a very nice cook book and he would enjoy being fed by the author.

The only drawback he sees is suggested by the title, "Epicure." Many of the recipes seem as if they required much time and skill.

WALTER D. LUDLUM

The Mind of Man. The Story of Man's Conquest of Mental Illness. By Walter Bromberg, M.D. Octavo of 323 pages, illustrated. New York, Harper & Brothers, 1937. Cloth, \$3.50.

The badge of genuine scholarship gleams from every page of this work by one of our

The Diagnosis of Nervous Diseases. By Sir James Purves-Stewart, K.C.M.G. Eighth edition. Octavo of 842 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$10.00.

Operative Obstetrics. A Guide to the Difficulties and Complications of Obstetric Practice. By J. M. Munro Kerr, M.D. Fourth edition. Quarto of 847 pages, illustrated. Baltimore, William Wood and Company, 1937. Cloth, \$12.00.

The Thinking Body. A Study of the Balancing Forces of Dynamic Man. By Mabel Elsworth Todd. Octavo of 314 pages, illustrated. New York, Paul B. Hoeber, Inc., 1937. Cloth, \$4.00.

The Abdominal Surgery of Children. By Sir Lancelot Barrington-Ward, F.R.C.S. Second edition. Octavo of 333 pages, illustrated. New York, Oxford University Press, 1937. Cloth, \$9.00.

Biological and Clinical Chemistry. By Matthew Steel, Ph.D. Octavo of 770 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$8.00.

REVIEWED

younger psychiatrists, and it is a credit to the medical profession that research material should be presented in such a distinguished style. Most of the reviews which have appeared in the literary journals have stressed the absorbingly original handling of the history of medicine and mental diseases, but the importance of the book to the profession is that this historical drama is deftly developed to explain the origins and meaning of modern psychiatric treatment and technique.

In this book, perhaps more than in any other like it, it is made clear to what extent medicine was originally psychiatry, and how in the course of history, physical medicine conquered almost all but the complex problems of the human being as a personality. Dr. Bromberg most clearly reveals how it is these personality problems which

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BOOKS

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are the object of modern psychiatric investigation and treatment. In this way, the physician has a superior opportunity to understand the significance of modern psychiatric technic, such as psychoanalysis, psychobiology, etc., in the light of the needs which they were developed to fulfill. In this sense, the book reflects the dynamic qualities of movement rather than the merely static descriptiveness of a purely historical work.

Dr Bromberg's treatment of the whole realm of faith healing, psychotherapy, and treatment of mental cases will appeal to every physician. For the practitioner it is a storehouse of vibrant information effectively conveyed, for the specialist it is an excellent example of the modern fusion of psychiatric technic

SAM PARKER

Legal Medicine and Toxicology By Thomas A. Gonzales, M.D., Morgan Vance, M.D. and Milton Helpert, M.D. Quarto of 754 pages, illustrated. New York, D. Appleton-Century Company, 1937. Cloth, \$10.00

It would be impossible to describe this book. It may best be understood by extracts from the foreword by Doctor Martland. He says "This book is one of the few authoritative works on legal medicine and toxicology in this country. It should become the hand book and daily guide for the coroner, the coroner's physician, the county physician, the medical examiner, the toxicologist and the pathologist. It will be of aid to the police schools and crime laboratories.

Finally the surgeon, the internist, especially the cardiologist, as well as the members of the legal profession, criminologists, and those who are interested in the occupational hazards and poisons of present-day industry should find a wealth of material and detailed instruction in this work."

The official standing of the authors as medical examiners of the City of New York and professors in three of the medical colleges of New York City as well as the Police Academy would be sufficient guarantee of the value of this book.

HENRY F. GRAHAM

Electrocardiography By Chauncey C. Maher, M.D. Second edition. Quarto of 254 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$4.00

The author states in the preface to the first edition of his work that "there is need for a treatise on electrocardiography for use by the general practitioner, the medical student and the specialist, exclusive of the cardiologist." His work clearly fulfills that need. It is not to be recommended as a

reference book on the entire subject of electrocardiography.

The author has arranged his material well, and has expounded his explanations clearly. He is to be complimented on having used the *Criteria for the Classification and Diagnosis of Heart Disease*.

The reviewer would take issue with him on one point in his chapter "The Electrocardiogram in Coronary Disease." He interprets curves as corroborative of the clinical diagnosis of acute coronary thrombosis involving the anterior or the posterior surface of the left ventricle as the case may be. In view of the fact that branches of both the right and the left coronary supply parts of both the right and left ventricles and because an infarction may involve parts of both ventricles if properly situated, it seems preferable to limit electrocardiographic localization of infarcts to either the anterior wall or the posterior wall of the heart.

E. P. MAYNARD

The Common Neuroses Their Treatment by Psychotherapy An Introduction to Psychological Treatment for Students and Practitioners. By T. A. Ross, M.D. Second edition. Octavo of 236 pages. Baltimore, William Wood & Company, 1937. Cloth, \$4.00

Seventeen years have elapsed since the appearance of the first edition of this book. In this interval, psychiatry has made marked strides in the treatment of the neuroses. However, the views presented by the author then are continued, with many new examples used to illustrate the principles involved. It is his contention that the majority of patients suffering from neurosis can be treated by the general practitioner. The book consequently is addressed to him with the view in mind that he should be equipped to treat such individuals. Because of his vast experience in treating mental patients, the author has been able to offer many helpful suggestions in the treatment of the neuroses. However, one may take issue with him that the majority of patients are not difficult to treat successfully.

Followers of Freud will find little solace in the book. In this edition the author has given less space to Freudian psychology, and has omitted a chapter on the Application of the Freudian Method.

JOSEPH L. ABRAMSON

The Normal Encephalogram By Leo M. Davidoff, M.D. and Cornelius G. Dyke, M.D. Octavo of 224 pages, illustrated. Philadelphia, Lea & Febiger, 1937. Cloth, \$5.50

The authors have met a pressing need in compiling this work. Depending on

whether or not fundamental brain anatomy is understood, nothing can be more confusing or more illuminating than an encephalographic survey. Through this text, the neurologist, internist and roentgenologist can find a wealth of aid, particularly desirable for those men to whom encephalography is an exceptional rather than a routine examination.

The text is profusely illustrated by actual roentgenograms, lucid sketches and diagrams, all clearly labeled. Chapter division is also highly commendable, rendering the text easily accessible for ready reference, something to which our foreign colleagues might well pay heed.

Since the work seems to so completely fulfill the requirements of its title, it is the sincere wish of the reviewer that the authors refrain from a second and enlarged edition long enough for this present one to become thoroughly familiar to those of us who need a text of this sort for information and reference.

GEORGE W. CRAMP

Biological Time By P. Lecomte du Noüy. With foreword by Alexis Carrel, M.D. Octavo of 180 pages. New York, The Macmillan Company, 1937. Cloth, \$2.00.

This is an interesting volume dealing with the familiar subject of time from a rather original point of view. The conception carries with it a phase of relativity. The problem is explained in the first part, its application to the healing of wounds and tissue culture is described in part II, and the last part is devoted to a discussion of time from the author's standpoint. The book contains a wealth of interesting information and should be of interest to those active in the field of biology and medicine.

MAX LEDERER

Physiology and Pathology of the Heart and Blood-Vessels By John Plesch, M.D. Octavo of 188 pages, illustrated. New York, Oxford University Press, 1937. Cloth, \$5.25.

The author of this volume looks at the circulation in the light of mechanics and hydraulics. It is a novel method for the consideration of problems dealing with cardiac decompensation, arterio-sclerosis, hypertension, etc., that have taxed the ingenuity of medical men for many years. It abounds in formulae that represent mathematically the dilatability of the blood vessels, the systoles of auricles and ventricles, the venous pressures of the lesser and greater circulations. It stresses the importance of the blood volume, the rate of blood flow, and the diastolic filling of the ventricles. It endeavors to explain a variety of cardiac ailments upon a mechanical basis. Especially interesting are the author's views on circulatory shock, congestion and

edema. Practical therapeutic suggestions are interspersed frequently. Circulatory shock is regarded as an example of blood volume deficiency, the loss of venous tone giving rise to insufficient diastolic filling. Relief is obtained by the application of heat, placing the patient in a horizontal position, stimulating the vaso-motor nerves, and administering glucose. Caffein, digitalis and camphor are not indicated.

In many respects the author's views run counter to long established theories. Where the author is skating upon thin ice, he resorts frequently to the phrase, "in the light of our present knowledge." The little volume contains much food for thought. It will have served a useful purpose if it will aid in the rationalization of the physiology and pathology of the heart and blood vessels.

SIMON FRUCHT

The Endocrines in Obstetrics and Gynecology By Raphael Kurzrok, M.D. Octavo of 488 pages, illustrated. Baltimore, Williams & Wilkins Company, 1937. Cloth, \$7.50.

A book by Kurzrok, whose contributions to the new endocrine physiology have been so important, compels attention. He has recorded the brilliant researches of Allen, Aschheim, Aschner, Collip, Corner, Doisy, Engel, Frank, Friedman, Hartman, Hisaw, Novak, Smith, and others too numerous to mention here—the whole story of the most brilliant period of laboratory investigation in medical history.

He has used his own ample clinical material for correlation of data and comparisons with the conclusions reached by experiments with laboratory animals.

Highly technical here and there in gonadal hormone chemistry with detailed descriptions of methods of hormone assay, it is a real text with particularly interesting chapters on hormonal sterilization, the climacteric, functional sterility and toxemia of pregnancy. It is a valuable work of reference for the advanced student, the illustrations are excellent.

CHARLES A. GORDON

Safely Through Childbirth. A Guide Book for the Expectant Mother By A. J. Rongy, M.D. Duodecimo of 192 pages, illustrated. New York, Emerson Books, Inc., 1937. Cloth, \$2.00.

This little volume is a guide book for the expectant mother. It is written in simple language so that the woman of ordinary intelligence may learn and understand the physiological processes which go on in her body during pregnancy, labor and the postnatal period. She is told what to expect, what to do, and what to avoid. It is an excellent book, and is worthy of being widely recommended to patients by the doctor.

WILLIAM SIDNEY SMITH

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CANCER OF THE RECTUM AND RECTOSIGMOID

Notes on Surgical Treatment

FRED W. RANKIN, M.D., Sc.D., *Lexington, Ky*

Cancer of the rectum and rectosigmoid, insidious in its development, symptomless in its earlier stages, but usually of moderate grade of intensity and slow to metastasize, presents a health problem of paramount importance when one considers the fact that more than ten per cent of cancers occur in this segment.

Perhaps the most common evidence of a cancer in the lower bowel is blood found either intermittently or persistently on the stool or in the stool. This indication of some disturbance, much too frequently taken to originate from hemorrhoids and erroneously diagnosed without further investigation, is present in eighty-five per cent of all cancers of the rectum at some time during the course of the disease. Blood in the stool or on the stool obviously may come from any portion of the gastrointestinal tract. Bright red blood in the stool or on the stool almost invariably comes from the distal half of the large bowel or the rectum, and while it is not pathognomonic of a malignant lesion of the lower gastrointestinal tract, and indeed is the initial symptom in but one-half of the cases, it more frequently than any other symptom except pain, causes the individual to appear for an examination, and pain is an infrequent symptom of early cancer.

Probably the earliest symptom of bowel cancer is irregularity of bowel habit characterized by diarrhea or ex-

cessively increasing constipation, or alternating periods of both. Tenesmus is present in direct ratio to the proximity of the growth to the spluncnteric muscle. Pain, unfortunately, is late in occurring and is present only when the nerves of surrounding structures have been invaded.

When the lesion is situated at the rectosigmoid, a frequent early symptom is obstruction. A review of the anatomical structure of this segment readily reveals the reason the sigmoid empties into the top of the rectum at an angle as it crosses from left to right and because of this angulation and the lack of mesentery, any superimposed growth partially or completely obstructs the passage, giving rise to either subacute or acute obstruction.

When careful digital and, or, proctoscopic examinations are indulged in, the diagnosis of cancer of the rectum or rectosigmoid can accurately be made in one hundred per cent of cases. Neither of these examinations is difficult nor do they require any great amount of special knowledge or skill. With the patient in the knee-chest position if he be instructed to strain against the examining finger, the rectal lesion can easily be felt with the index finger. Occasionally even a rectosigmoidal growth will be found to come down to where it may be felt. If not, a proctoscopic examination makes possible accurate diagnosis in every case.

Feeling as I do that a knowledge of the grading of a growth is an invaluable

and not only in the selection of the operative maneuver, but in estimating prognosis, I have for the past twelve years routinely done a biopsy on every cancer of the rectum. Contrary to some beliefs, I have seen no evidence that by so doing cancer cells were disseminated to surrounding tissues or organs.

If in the presence of clinical symptoms of cancer of the colon or rectosigmoid, proctoscopy reveals a normal bowel up to or beyond the rectosigmoid, x-ray investigation is urgently indicated. I emphasize the fact, however, that this be resorted to only after proctoscopy has failed to show the offending growth. True it is, that occasionally after indulging in all efforts at differential diagnosis, the lesion is found to be benign, but how much better it is to establish the benignancy of a growth than to casually assume this verdict without proper examination when actually the lesion is malignant! The fact alone that one in every ten persons past the age of forty is doomed to die of cancer should cause one to use every available means to rule out the possibility of the patient in question being this victim.

But of what avail is the improved technic of surgeons, roentgenologists, and radiologists if they are not given the opportunity to make an early diagnosis? Who is to blame for delay in diagnosis which is admitted to be the principal cause for failure to cure cancer? Perhaps, as some hold, the chief cause for inoperability of cancer of the rectum and rectosigmoid, as of cancer elsewhere in the body, is the patient's dilatoriness in consulting a physician. This is due in part to the idea of the layman that until he suffers pain or complete disability from his ailment he is not obliged to "go to the doctor." He is not familiar with the significance of changes in bowel habit, irritability of the colon, and other symptoms that usually precede bleeding, pain or obstruction, a fact which justifies us to indulge in constant repetition even to the point of being tiresome.

Equal in responsibility, it seems to me, is the failure of the consulted physician to make an adequate examination, thus causing further delay. This failure results often in the tragic discovery of a cancer at an operation scheduled to

be for hemorrhoids. Actually, somewhere between ten and twenty per cent of cancers of the rectum have within the period of their symptoms been operated upon under the diagnosis of hemorrhoids. Even the most cursory examination of the rectum for a low-lying cancer would prevent this, and proctoscopic examination would always indicate the proper location and diagnosis. These factors have been so often repeated that it seems incredible in our enlightened times that any physician should accept a patient's diagnosis of hemorrhoids without an examination, or treat a patient for hemorrhoids without a careful inspection of the lower part of the gastrointestinal canal. At the risk of being a bore, let me again repeat that any case of bleeding of the rectum should be looked upon as due to a malignancy until it is definitely proved that the lesion is a benign one.

Treatment

Once an accurate diagnosis of cancer of the rectum or rectosigmoid has been made, one may consider two types of offensive against it—surgery and irradiation, either singly or in combination. Unquestionably, there are certain types of cancer of the rectum which can be cured by radium, then too, it is of great value as a palliative procedure for inoperable and recurring lesions. In the latter instance, bleeding is frequently controlled, the tumor recedes and occasionally so-called inoperable tumors are rendered removable. Some growths can be made to disappear by the direct application of radium around the base and over the surface of the tumor. When it is remembered, however, that forty-six per cent of cancers of the rectum have metastasized to the lymphatics at the time of resection, and that if resection is not done we have no proof of the absence of metastases, it seems reasonable to conclude that radical extirpation offers the most satisfactory results in the vast majority of cases. Undoubtedly, there is a field for the combined use of the two and I am certain that as knowledge of radium increases, this field will be enlarged.

I mention only briefly the recently instituted procedure of destruction of can-

cers of the rectum by surgical diathermy Strauss and his coworkers have recently reported a series of cases treated by this method in which a satisfactory number lived for a long period of time and in many of which adequate palliation resulted, although the patient ultimately died of cancer. Certainly, local destructive measures have their place in the surgeon's armamentarium, but like all offensives directed against cancer, their limitations and indications should be rather sharply defined.

Any local destructive agent which gets rid of a cancer and saves the splintcric mechanism is commendable, provided its use is not extended beyond its limitation. Obviously, one cannot destroy cancers of the rectosigmoid with surgical diathermy because of the danger of breaking into the peritoneal cavity. Also, one cannot fail to take into account the fact that although rectal cancers metastasize slowly into the regional lymphatics, at resection the specimens of nearly one-half of the cases show glandular involvement to have already taken place.

Destruction of malignant growths by radium or surgical diathermy, or any other agent which is local in its application cannot hope to influence distant metastases and therefore should be limited to the role of palliation, or that of an adjunct. Unquestionably there are elderly individuals in a debilitated state and with growths which are locally inoperable who will be benefited by desiccation of the growth with or without colostomy, but for the vast majority of sufferers from cancer of the rectum I am still convinced that the radical extirpative maneuvers applying the principles of cancer surgery to the rectum just as to the breast, lip, or other parts of the body, still pertain.

Preoperative Preparation

Recently it has been my custom to extend the preoperative period of preparation on patients with cancer of the rectum and colon from three or four days to seven days, or longer. This rule holds only, of course, when there are no evidences of acute intestinal obstruction. During this time the patient is given a diet high in calories but low in residue

and is subjected to repeated irrigations of the bowel with hot saline. A preoperative blood transfusion has many times proved helpful in assisting the patient through a radical operation. When there is marked debility or evidence of anemia, a transfusion is routinely given preoperatively. A former practice of administering intraperitoneal vaccine composed of mixed streptococci and colon bacilli, has been abandoned after having been found to lack the value once attributed to it.

Selection of Operations

Statistical study has proved that the application of as radical procedures as possible to cancer in the rectum yields higher percentages of five year cures than less extensive measures. However, it is essential that a surgeon have at his command knowledge not only of the radical technic, but of several other types of maneuver if he is to maintain a desirable operability rate along with a reasonable hospital casualty list. The standards for such selection should at all times be flexible, and must be governed by the patient's general condition and the stage of the growth, its mobility, coexisting debilitating diseases, and other complications.

In operating on 576 patients for cancer of the rectum and rectosigmoid since January 1927, I have found the following four operations, given in order of their desirability, but not necessarily applicability, to be the ones of my choice.

- 1 Radical combined abdominoperineal resection in one stage

- 2 Radical combined perineoabdominal resection in two stages

- 3 Colostomy and posterior resection (Mummary)

- 4 Palliative procedures and local excision

In the three operations which have been most satisfactory in my hands, colostomy is, without question, always considered an essential step. Nor should it be an objectionable one! Once a patient has accustomed himself to a properly made colostomy, he can easily control it and thus wear it gracefully and without stigma. The objections offered to colostomy by both the profession and

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RELIEF OF PAIN BY PHYSICAL MEASURES

RICHARD KOVACS, M D, *New York City*

Pain is undoubtedly the commonest of all symptoms. From the patient's point of view it actually dominates the whole field of medicine and is usually the symptom which brings the patient to the physician. There is nothing that gains more prestige for a doctor than the ability to relieve pain. In a patient with a painful condition the good physician should be able to make a reasonably adequate diagnosis at the outset and then proceed immediately to make him comfortable.

It is axiomatic that treatment of any painful condition must be primarily directed towards removing or ameliorating its cause. Generally speaking, pain may originate in two ways:

1 The pain may have an obvious organic cause, such as inflammation or swelling and it is definitely localized in one spot or area. The sensation of such pain is conducted to the sensory cortex through well-recognized tracts the same as the sensation of heat or cold.

2 The pain may be diffused and unlocalized. Such pain is often associated with visceral disorders, in other cases it may be functional or psychogenic. In the latter case, the affected areas are unrelated to sensory nerve distribution, while in visceral conditions the pain is referred to certain parts of the skin and is associated with the sympathetic nervous system. The association of definite areas of the skin with the underlying viscera has an important bearing, not only from the diagnostic standpoint, but also regarding the application of physical measures. Thermal or other stimulation applied to certain areas will have a definite reflex effect in deeper structures.

Physical measures are being employed in a steadily increasing scope for treatment of painful conditions. Newer experimental and clinical studies have shown their place in the direct causal treatment of many of the physiological changes underlying pain. This has been notably so in inflammatory disorders and traumatism. The most important physical agents such as massage and simple heat are instantly available almost anywhere, physical measures offer the advantage

that their dosage can be fairly accurately controlled, and they can be usually directly applied to the seat of the disorder, when used for symptomatic treatment, there is no danger of habit forming by physical measures and there is very little likelihood of untoward effects due to idiosyncrasy.

Action of Physical Agents

Every physical agent when applied to the body exerts a primary physical action and this in turn brings about secondary physiological and clinical effects. On the basis of their primary action, physical measures have been classified as mechanical, thermal, electrical, and chemical. It is an interesting fact that measures of different physical nature may accomplish similar physiological effects. The work of Lewis¹ and others has cleared up this seeming contradiction. Lewis showed that so far as the skin is concerned, mechanical, electrical, thermal, and chemical stimuli—within physiological limits—all produce a similar response of the skin vessels. This response consists of a primary and local dilatation of the minute vessels of the skin, a widespread dilatation of the neighboring strong arterioles—brought about entirely through local nervous reflex—and locally, increased permeability of the vessel walls. The extent and the slow or quick development of this skin reaction and the additional effect on deeper structures by reflex and direct penetration can be accounted for the differences between various physical agents and enables their selection according to clinical aspects and individual equation.

Mechanical Measures

Rest is a therapeutic measure of primary importance in all painful conditions which are aggravated by movement. Nature points the way—often overshooting the mark—by producing a protective muscle spasm in most acute injuries. Placing an injured part at rest by posture or by light splinting relieves pain and to a

Read before the Annual Meeting of the Medical Society of the State of New York, Rochester, May 26, 1937

certain extent favors defense and repair. Experience must decide how long such rest should be maintained, for prolonged immobilization, on the other hand, may delay recovery through lack of adequate circulation and lead to secondary pain due to stasis and adhesions, or deformity. Throbbing pain in an extremity in which there is acute inflammation can be markedly relieved by elevation of the limb.

Massage is an indispensable agent for relieving pain either by lessening peripheral tension in the acutely traumatized or inflamed parts or by dispersing the products of inflammation by direct pressure in later stages of trauma. Superficial gentle stroking exerts a sedative effect in referred or deep-seated pain. The pathfinding studies of Lucas-Champonnière of Paris have shown that massage may be successfully employed for relief of pain and spasm even in the most acute stages of an injury. Exercise in conjunction or independent of massage is often introduced to free painful movements by degrees. The static wave current and static sparks are valuable electrokinetic measures in relieving pain due to local congestion and minor adhesions.

Thermal Measures

Heating the body within physiological toleration has two distinct effects. (1) It brings about a local hyperemia and consequently speeds up the rate of removal of local tissue products (toxins or results of inflammation), and (2) it acts as a sedative in irritative conditions of sensory and motor nerves. Thus heating is perhaps the most valuable measure in combating pain, both from a causal and symptomatic standpoint. Recent clinical and research work in the application of general heating (fever therapy) in dosage lethal to thermolabile organisms (the gonococcus and the spirochaeta pallida) proved it is to be an important factor in the causal therapy of painful conditions arising from such bacterial activity.

In gonorrheal arthritis stubbornly resisting all forms of therapy, it has been possible to give almost dramatic relief from pain with artificial hyperpyrexia.

Cold is a negative condition, a decrease of molecular vibrations of the tissues due to extraction of heat by an application be-

low normal temperature. Mild degrees of cold, like mild degrees of heating, are distinctly sedative. Cold applications often give prompt relief in localized inflammatory conditions. There is not much difference between the effects of the prolonged application of a hot water bottle and an ice bag and consequently there is little justification for much argumentation over their respective merits. Heat produces an immediate vasodilatation, whereas cold effects an initial vasoconstriction, both result in a secondary localized hyperemia and both effect a varying degree of "derivation" in the deeper circulation.

It is often a matter of individual sensory reaction in an inflammatory condition whether there is more relief from hot or from cold applications.

Thermal measures for the relief of pain are to a certain extent interchangeable, one can often make up for less intense effect in the depth by prolonged application on the surface. Generally speaking, in localized acute painful conditions mild forms of local heating and the avoidance of all pressure are most effective, hence the preference for radiant forms of heating—luminous heat or infrared—to heavy hot water bottles or to diathermy. When there is much surface tension due to swelling, moist forms of heating are preferable. In chronic deep-seated congestive conditions diathermy is more effective because the action extends deeper, in addition the close-fitting electrodes prevent surface cooling. Reports about specific pain relieving effects by short-wave diathermy in acute inflammatory conditions need further clinical corroboration and especially comparison with controls treated by simple radiant heating. No other demonstrable effect except that of less surface and more penetrating heating has been proven so far about short wave diathermy.

Mild general heating is of value in pain which is not localized, or which arises in deeper organs or affects several parts, especially joints. Full hot baths, electric light baths, hot air cabinets, general diathermy or autocondensation are helpful in generalized pain—rheumatic conditions, etc.—and give relief by increasing general metabolism, decongesting deeper organs, and relieving vascular

stasis. Hot sitz-baths are employed to relieve pelvic pain due to congestion

Counterirritant Measures

Irritating the skin by some physical agent for the purpose of relieving some other irritation is known as counterirritation. Crude methods of vesication, sinapism, and liniments have been employed empirically for ages to relieve pain. The observations of Lewis have helped to bring about a better understanding of the biophysics of counterirritation while modern physical methods offer many more plausible and more efficient counterirritants. The old-fashioned liniments still fill a distinct need for home use, and for this purpose are preferable to some of the widely advertised, more expensive, and potentially more dangerous electric contraptions—"violet ray" and "home diathermy" outfits.

The *monoterminal high-frequency* or *Oudin* current administered through a glass electrode from the high voltage terminal of a diathermy apparatus will exert either mild surface heating or mild counterirritation, according to the degree of sparking employed. There is also a gentle stroking effect, due to the moving of the glass tube over the skin. This treatment is almost a specific for the relief of pain in neuralgia of the skin nerves—intercostal, supraorbital, and occipital. Meralgia paraesthetica—a painful affection of the *n. femoris cutaneus* lateralis—is usually promptly relieved. The after-pain in many cases of recent traumatism—contusions, myositis and sprains—often responds to *Oudin* treatment, especially when preceded by mild heating.

Ultraviolet irradiation administered to the extent of a second or third degree inflammatory reaction over a painful area has been employed in treatment of neuralgia, myositis, and other rheumatic affections. Following such exposure with adhesive strapping, Eidnow² has claimed excellent results with one treatment of acute low back pain. The instinctive desire by patients for various degrees of sunburning in painful muscular and joint conditions is well-known. The clinical effects of such treatment can be explained partly by that of a mild protein "shock"

due to the absorption of the destroyed albumin and partly by the reflex stimulation from the irradiated zone.

Galvanism and ionization. Specific pain relieving effect is being attributed to the positive pole of the galvanic current on the basis of the physiological fact that there is a decrease of nerve irritability around the positive pole in a laboratory muscle—nerve preparation. In the human body the amount of current which may reach the nerves situated deeply in the tissues is extremely minute, hence its effect on the circulation, the promotion of resorption, and a certain amount of counterirritation explain the relief of pain more satisfactorily. This is corroborated by the observation that it seems to make no difference which pole is used over a painful area as long as treatments of sufficient duration and intensity are administered.

Newer work with ionization of vasodilating drugs—histamin and mecholyl—has demonstrated their efficiency for relief of pain and stiffness in rheumatoid arthritis and other rheumatoid conditions.³ The deposition of the drug in the deeper layers of the skin by the positive pole of the galvanic current and its slow absorption from there brings about a prolonged form of counterirritation in the area treated and also some systemic effects.

The difference in the action of these electrochemical and photochemical methods from the purely thermal methods is in degree, penetration, and duration, and needs suitable repetition in order to effect "bridging" or continued relief from pain between treatments. On the other hand more profound counterirritation may give longer periods of relief and may necessitate fewer treatments. Seasoned clinical experience is needed for selection of these measures and their combination with other forms of treatment.

Some Painful Conditions

In addition to the conditions already mentioned physical measures are effective for relieving pain in numerous other disorders. Among these are inflammations, acute and chronic, including rheumatic conditions, traumatism irritation of per-

ipheral nerves and of spinal roots, certain forms of referred pain, and circulatory disorders. The limited extent of this paper allows only a brief consideration of some of these conditions.

Pain from injuries. If the accurate diagnosis of the nature and extent of a recent injury does not warrant complete immobilization, the immediate employment of gentle stroking massage, applied principally to the periphery of the traumatized area will relieve pain by hastening the dissipation of swelling, the intermittent use of an ice bag may also be helpful. Subsequently an elastic bandage or strapping may be applied and the injured part elevated and kept at rest. British clinicians, notably Heald,⁴ praise the sedative value of a mild galvanic current immediately applied. Pain in the subacute and chronic stage responds to thermal measures, gentle massage, and exercise.

Pain from inflammatory disorders, including rheumatoid conditions. The value of appropriate thermal measures and posture in acute forms of this nature has been already stated. In chronic inflammatory conditions, pain due to pressure on terminal nerve endings can be relieved by deep heating, or various forms of counterirritation, or massage and electrical muscle stimulation. Pain due to congestion in deeper organs is partly relieved by stimulation from the surface and perhaps partly by the penetrating effect of thermal agents.

In chronic bursitis, myositis, fibrositis, and certain forms of neuritis, physical measures not only serve for symptomatic but also causal treatment. It is a too far-fetched application of the theory of focal infection to look for spectacular relief in those conditions by the elimination of suspected foci. Such lesions as a rule represent a low grade local inflammatory reaction with no bearing on any focal infection. Manipulative cults steal a march on the medical profession by the successful attack of such well-localized traumatic or rheumatic lesions by physical measures. It should behoove the scientific medical man to institute in these conditions at once appropriate physical therapy, combined with suitable constitutional treatment. The quest for a supposed focus may be carried on concurrently

The characteristic pain of true *neuritis*—which is at times of torturing intensity—demands, as a first line of attack, complete rest and relaxation. A fairly continuous application of gentle surface heating from radiant sources—avoiding any pressure—is eminently helpful in the acute stage which is best treated at the patient's home. In the subacute stage, skillfully applied diathermy will alleviate muscular spasm which is a definite factor in keeping up the pain. In chronic stages various forms of counterirritation may be indicated. In the neuralgias and other painful affections due to irritation of spinal roots or disease of the central nervous system (gastric crises, tabetic pains), both thermal and counter-irritant measures are helpful. In experienced hands physical measures will enable restriction of sedatives and narcotics to a minimum.

Pain in *peripheral vascular disease* may be due to either vasomotor disturbances causing a spasm such as Raynaud's disease, or to chronic inflammatory changes causing obstruction of blood vessels, such as arteriosclerosis or endarteritis. In vasospastic conditions, ionization with vasodilating drugs is especially indicated, in organic occlusion of blood vessels with involvement of the arteries and unimpaired capillary circulation, mild diathermy is helpful, in advanced cases elevation of the leg combined with most careful external heating kept at a constant temperature of 94 to 95°F or passive vascular exercise by pressure-suction apparatus promises relief.

In conclusion it is evident that in order to be effective and safe, physical measures must be applied with an appreciation of the underlying pathology and with a knowledge of the proper technic and the possible dangers involved. There are sins of omission—neglecting time-proven physical measures—and sins of commission—employing physical measures unskillfully or as mere placebos.

Summary

1 Physical measures play an important part in both causal and symptomatic treatment of painful conditions. Their principal advantages are that their

basic forms are easily available, they can be usually directly applied to the seat of disorder, and there is no danger of habit forming or idiosyncrasy

2 The principal physical agents for the relief of painful conditions are mechanical and thermal, counterirritant measures in the form of Oudin current, ultraviolet irradiation, galvanism, and ionization

have a small but definite scope of applicability

3 The painful conditions in which physical measures play an important part of treatment are traumatism, arthritic and rheumatoid conditions, chronic inflammatory conditions, neuritis, and peripheral vascular disease

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References

- 1 Lewis Th *The Bloodvessels of the Human Skin and their Response*, London Shaw & Co 1927
- 2 Eidinow, A *The Lancet*, page 1404, June 20, 1936

- 3 Kovacs, R and Kovacs, J *Arch Phys Therapy & Ray, Radium*, 15 593, 1934
- 4 Heald, C B *Injuries and Sport*, London, Oxford University Press, 1931

Discussion

DR PETER IRVING, *New York City*—Two thoughts were inspired in my mind by reading Dr Kovacs' clear presentation of his theme—thoughts rather widely diverging and yet practically related. The first is that substitution of physical measures for medicines in the relief of pain has a far greater value than is generally realized both by the public and indeed also by physicians. The second, purely practical, that it would be well for us as physicians to find a better way than has yet been worked out to utilize these safer methods of pain relief to the fullest degree.

I must make it clear that I am speaking not as an expert in physical therapy but as a practitioner of general medicine who quite some years ago found that results of application of physical measures were better if a physician specializing in this work gave the treatments. I am not qualified to compare the values of the different measures Dr Kovacs mentions because I have not his experience or judgment in their application.

However, from observation of results obtained by thoroughly skilled physiotherapists for my own patients and observation of the unfortunate effects of unwise use of salicylates, barbiturates, etc., I consider myself justified in enthusiastically endorsing the use of physical measures, wherever possible, instead of sedatives and analgesics so widely used today.

I doubt if many of us have given much thought to the possibility of minor addiction to phenobarbital or even salicylic acid, and that physical and personality deteriorations may result therefrom. Of course we are all aware of the toxic psychoses that at times follow overdosing. But that continued lesser use may do much damage is not so well-known. I happen to have seen one hopeless elderly hypochondriac whose nightly habit of one tablet of medinal prevented any recon-

structive work and one elderly aspirin habitue who is on her way to an ultimate toxic and degenerative psychosis. In both, the medicine, not at once recognizable as a factor, and indeed not the only factor, is the immediate handicap that makes useless the other usual remedial efforts. Both are arthritics, both had good reason to receive the medicines, both had no notion that these drugs were harming them. In both cases the early and wise use of physical measures might have made unnecessary the too long-continued medication.

My other notion that we have not found the best way to make more easily available physical measures for pain relief flows from the fact I mentioned that I had myself found it inexpedient to tack on in my practice a proper physiotherapeutic service run by myself. As I understand it two things are necessary in applying physical measures and both require time. The first is wise choice of the measures which can only come out of experience and study of the case, the second is skillful and leisurely application.

I wonder whether it will not in the future be decided, particularly with relation to physical measures for the relief of pain, that we shall have to develop intelligent group practice, into which physiotherapy shall quickly and expeditiously fit. We do it in hospitals, why not in private practice? Do not, please, understand me as a proponent of any "plan" for group practice but merely as believing that modern rapid developments in medical treatment seem to justify an attempt to give our patients what they need, not just at a cost they can meet but with conservation of their time.

Relief of pain by medicines is quick but has dangers. Relief by physical measures is safe and better but takes time. How make it most widely available? I leave this thought with you.

PNEUMONIA IN NEWBORN AND STILLBORN INFANTS

MARGARET WARWICK, M D, *Buffalo*

From the Millard Fillmore Hospital

Every pathologist, who performs autopsies on newborn infants, is often at a loss to explain a pneumonic process which he finds in the lungs of babies who were stillborn or who died during the first few days of life, without clinical signs of pneumonia. Investigation usually shows that their mothers also were free of evidence of bacterial infection of any kind. This pneumonia may be in one or both lungs and may be in small, isolated areas, or affect all of one or both lungs. The affected areas are dark red and firmer than the surrounding tissue and resemble areas of hemorrhage or atelectasis so that the diagnosis must be made by microscopic sections, a procedure too often neglected in newborn infants. The affected alveoli and often the bronchi also, are filled with neutrophiles. The alveoli may be atelectatic but more often have been open, if not distended. Usually the neutrophiles are grouped around the solid constituents of amniotic fluid, such as small masses of bile salts, or cornified epithelial cells, aspirated before or during birth. The exudate usually varies in distribution or extent with the amniotic fluid constituents.

At the Millard Fillmore Hospital, consecutive autopsies have been performed on 500 infants who were stillborn or who died during the first ten days of birth. But fifty-two of these bodies were so macerated that satisfactory sections of the lungs could not be made, which left 448 that were examined for pneumonia. Of these 448, ninety-three (21 per cent), more than a fifth, showed a pneumonic process in the lungs as is shown in Table I. The ages of the affected infants are shown in Table II, nineteen (20 per cent) were stillborn and twenty-six more (28 per cent) lived less than 24 hours, making a total of forty-five (48 per cent), practically half, who must have had the affection at the time of birth. Also of the entire series, seventy-

nine (85 per cent) died within the first three days of life. This pneumonia must have some relationship to the process of birth for it is difficult to think that so many infants, cared for in a modern hospital could have become infected with bacteria after birth and die of pneumonia within three days. Furthermore, very few of the infants dying between the third and the tenth days showed pneumonia.

In the absence of any clinical symptoms in these infants or their mothers, it is difficult to believe that bacteria could have caused these cases of pneumonia. When these lungs were stained by Rosenow's modification of Gram's stain, only twenty-seven (29 per cent) showed any bacteria to be present. In these twenty-seven were included every lung which showed any bacteria at all, even a rare group or chain, although so few bacteria could not have caused the pneumonia. It is possible that a few bacteria could have been introduced into the lungs during attempts at resuscitation. The bodies of some of these infants lay in the ice-box for several days before consent for the autopsies could be obtained, and it seems possible that some bacteria, particularly saprophytes, may have proliferated into many after death, without being the cause of the pneumonia. So it is possible that bacteria must have played an important role in many less than the twenty-seven where bacteria were demonstrated. Even if this were not so, we have proof that seventy-one per cent, or nearly three-fourths, of the cases of pneumonia showed no bacteria at all in the lungs. This suggests that the etiology of pneumonia in newborn infants must be something other than bacteria. This is borne out by Table III which shows the percentage of bacteria found in each age group and only five per cent of the nineteen stillborn infants with pneumonia showed bacteria in their lungs, and of the forty-five who

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TABLE I—INCIDENCE

Autopsies performed on newborn infants	500
Too macerated for microscopic examination	52
Infants examined for pneumonia	448
Infants showing pneumonia	93
Percentage of infants showing pneumonia	20.8

TABLE II—AGES OF INFANTS WITH PNEUMONIA

	Number	%
Stillborn	19	20.4
Under 1 day	26	27.9
1-2 days	22	23.6
2-3 days	12	13.1
3-4 days	7	7.5
4-5 days	1	1.1
5-6 days	1	1.1
6-7 days	2	2.1
8-9 days	2	2.1
9-10 days	1	1.1
Total	93	100

TABLE III—AGE OF INFANTS WITH PNEUMONIA SHOWING BACTERIA

	Total number	Showing bacteria	%
Stillborn	19	1	5.3
Less than 24 hours	26	2	7.7
24-36 hours	13	5	38.4
36-48 hours	10	7	70.0
2-3 days	11	5	45.4
3-4 days	7	3	42.8
4-5 days	1	0	0.0
5-6 days	1	0	0.0
6-7 days	2	1	50.0
8-9 days	2	2	100.0
9-10 days	1	1	100.0
Total	93	27	29.0

TABLE IV—TIME OF RUPTURE OF MEMBRANES IN INFANTS WITH PNEUMONIA

Time Before Birth	Number	%
Under 1 hour	47	50.5
1-10 hours	13	14.0
10-24 hours	8	9.4
Under 24 hours	68	73.9
2-3 days	3	3.2
14 days	1	1.1
Not known	21	22.6
Total	93	100

were stillborn or died within twenty-four hours, only seven per cent showed bacteria in their lungs. The percentage gradually rises to seventy in the infants dying within thirty-six to forty-eight hours after birth. This increase in bacteria with age suggests that the possibility of bacteria being introduced into the lungs increases with the age of the infant.

A septicemia in the infant as the cause of the pneumonia, may be ruled out by the fact that inflammatory lesions are not found in any organs but the lungs. It is difficult to under-

stand how bacteria could have been introduced into the lungs of infants dying before birth or shortly afterward. Johnson has suggested that premature rupture of the amniotic sac might allow the entrance of bacteria to the body of the child with aspiration into the lungs, but Table IV shows that in this series, sixty-eight (74 per cent) did not have a rupture of the amniotic sac until twenty-four hours or less before birth. It is impossible to believe that the membranes could rupture, bacteria enter the uterus, be aspirated into the baby's lungs, and set up a definite pneumonic process within twenty-four hours.

Since the neutrophilic infiltration is found in the lungs only, we must think of the etiologic factor as having been aspirated into the lungs, and the substance most frequently aspirated into the lungs of newborn infants, is amniotic fluid. This fluid normally contains hard, scale-like, rolled-up, cornified epithelial cells which have been shed from the surface of the infant into the amniotic sac. In addition to these, masses of bile salts from meconium which has been passed through a relaxed sphincter into the amniotic fluid, is also often present. It has been definitely proved that premature respirations may take place *in utero* by stimulation of the respiratory center from asphyxiation due to some disturbance in the circulation in either the mother or the child. Many an infant as premature as three months has breathed and sucked in a large amount of amniotic fluid as it died, as shown by the fact that we often find the lungs of a macerated, premature infant filled with bile salts and cornified epithelial cells. However, premature respirations usually take place during the process of birth. If the birth be long or conditions are such as to cause an asphyxia, large amounts of amniotic fluid will be sucked into the lungs. If death follows immediately afterward, only fluid and the solid constituents will be found in the lungs, but if the infant lives a while, the toxic bile salts and irritative cornified epithelial cells may cause an inflammation in the delicate tissues of the infants' lungs and an exudate of neutrophils be thrown around them. It is well-known that silver nitrate in an infant's eye may cause an exudation

of pus, irritating gas has caused a pneumonic process in adults, and oil in children's lungs has caused a pneumonia (lipoid pneumonia), so it is reasonable to suppose that bile salts that have been proved to be toxic to tissues in various parts of the body, and the sharp, stiff epithelial cells which may be physical irritants may cause a pneumonic process in the lungs of newborn infants.

This type of pneumonia is, evidently, not toxic as is a bacterial pneumonia but it may fill the alveoli of the lungs and prevent proper aeration. In other words, this exudate, which has been attracted by a chemical or physical irritant, causes a mechanical obstruction of the lungs so that air cannot enter. The serious effects of this will be largely determined by the extent of the exudate. Small, isolated areas may still leave enough lung tissue unaffected to aerate to support life, but lungs filled by the exudate will have little chance of recovering air, and thus may be the direct cause of death.

The aspiration of amniotic fluid is very common in newborn infants and Farber and Sweet found it in eighty-eight per cent of their series. If it is as common as this, one must explain why pneumonia in newborn infants is not more frequent even than the twenty-one per cent found in this series. The reaction to the amniotic fluid may be determined by several factors, the most important of which is the length of time that the child lives afterwards. If it dies shortly after the aspiration of the fluid no pneumonia will have chance to form. Also the amount of the toxic solid constituents, particularly the bile, of that the amniotic fluid may be determined factor. A fluid with a large amount of bile salts must be more toxic than one in which no meconium has been expelled. And last, but not least, the vitality of the child will be an important factor. It is possible that the large, strong infant may aspire some amniotic fluid either before or during birth, and be able to expel it. His respiratory efforts may be strong enough to aspirate sufficient air into the lungs to sustain life even if some alveoli remain solid. If the unaffected alveoli open up promptly and satisfactorily, the pneumonia areas may do little harm and either be replaced

by connective tissue or the leukocytes may liquify and be expelled with the solid particles, from the lung. Table V shows that the majority of the infants in this series were in poor condition at the time of birth. Only thirteen (14 per cent) were described as "good" while fifty-eight (60 per cent) were "fair" or "poor" and nineteen (20 per cent) were dead, hence, it is evident that, in this series at least, poor vitality was associated with the pneumonia. Some reason for the poor vitality of these infants is found in Table VI which shows that only twenty-four of the ninety-three had spontaneous deliveries and even these had complications, such as a long, hard delivery or the cord around the neck. The others all had abnormal deliveries.

In many of these cases, the pneumonic process might not have been the cause of death for Table VII shows that seventy-four (80 per cent) had other, grave pathological lesions which were sufficient to have caused death without the pneumonia. In other words we find the pneumonia occurring in infants which

TABLE V—CONDITION OF INFANT AT BIRTH

Condition	Number	%
Good	13	14.0
Fair	19	20.4
Poor	39	41.9
Dead	19	20.4
Not recorded	3	3.2
Total	93	100

TABLE VI—METHODS OF DELIVERY OF INFANTS WITH PNEUMONIA

	Number	%
Version and extraction	24	25.8
Spontaneous	24	25.8
Forceps	21	22.6
Cesarean section	10	10.7
Breech extraction	7	7.5
Not known	4	4.3
Extraction	3	3.2
Total	93	100

TABLE VII—CAUSES OF DEATH OF INFANTS WITH PNEUMONIA

	Number	%
Cerebral hemorrhage	28	30.1
Pneumonia alone	19	20.4
Prematurity	19	20.4
Fatal malformations	10	10.7
Hemorrhage into adrenals	6	6.4
Lacerated organs	4	4.3
Intercurrent disease	4	4.3
Maceration (death in utero)	3	3.2
Total	93	100

were handicapped by other lesions which must have greatly decreased their vitality during their short lives. The pneumonia, if extensive enough, may prevent proper distension of the lungs and cause death in this way, but such cases are in the minority—nineteen (20 per cent). More often it occurred in the infant handicapped by abnormal deliveries or other disease conditions.

Conclusions

Pneumonia in newborn or stillborn infants is a definite pathologic process which cannot be diagnosed with certainty until the autopsy, because it so resembles hemorrhage and atelectasis. It is the result of aspiration of toxic bile salts and irritative cornified epithelial cells which form the solid constituents of

amniotic fluid which produces a non-bacterial irritation. The leukocytic exudation fills the lungs and prevents proper aeration and the extent of the process determines its severity. It is usually found in infants who have had long and complicated deliveries and who are either dead or in poor condition at the time of birth, and who are usually the victims of other pathological lesions sufficient to have caused death in themselves. Only a few died with no other pathological lesions and even those had some birth complications. Prevention of this condition is possible only by improving the prenatal conditions of infants and by improving, as much as is possible, the conditions under which they arrive in this world.

MILLARD FILLMORE HOSPITAL

Discussion

DR DOUGLAS ARNOLD, *Buffalo*—Thinking deeply about this subject, this paper of Dr Warwick's is very important.

About fifty years ago Dr Ahlfeld reported experimental work in which he described rhythmic respiration in the fetus, i.e. before birth. This really described the respiratory mechanism as in fine adjustment and practicing for its later work. This rudimentary (intrauterine) respiration in the human fetus is extremely important. He also described the inspiration of amniotic fluid (vernix, cornified epithelium, bile salts) as far as the upper respiratory tract. This occurs normally. Abnormally this refuse is sucked lower and in larger amounts.

Most physicians do not realize the importance of the correlation of asphyxia, atelectasis, and pneumonia in the newborn with the casual relation, intrauterine stress, that is, cerebral trauma (cerebral hem-

orrhage and edema) resulting in prematurely activating the respiratory center with pathologic inspiration of amniotic sac contents, or causing depression or paresis of respiration resulting in asphyxia, atelectasis, pneumonia or death. Dr Warwick as well as Farber and Wilson have significantly pointed out the high incidence of abnormal deliveries and cerebral hemorrhage in these cases.

This paper very definitely puts it up to the obstetrician to prevent either premature stimulation or later paresis of the respiratory center in preventing the inspiration of amniotic sac contents and thus preventing asphyxia, pathologic atelectasis, pneumonia, and death.

The paper also points a moral: "There is a time in every man's life when it behooves him to hold his breath and keep his mouth shut."

REWARDS OF A MEDICAL CAREER

I believe that in the future, as in the past, medicine offers a young man a career which will challenge the very best that is in him. Although his income will probably never be large, it will be adequate. The same intangible things which appeal to us today will still reward him. He will have a respected place in society and will have the realization that he is contributing a worth-

while service to society. He will be given the opportunity to deal with and know people in a personal way which should give him lasting enjoyment. His work will be interesting as long as he lives. I shall be happy and proud to have my sons enter the medical profession.—*From The Bulletin of the Hennepin County Medical Society, Minneapolis*

CLINICAL OBSERVATIONS ON TONSILLECTOMIZED CASES

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From the Oto-laryngological Department of New York Post Graduate Medical School and Hospital of Columbia University

The present regimented era of fashionable tonsillectomy has conveyed clinically definite criteria. Perusal of the literature reveals unsurmountable statistics.

The inferences derived from such colossal figures very often do not explain the failures in the not uncommon cases. It is with this thought in mind that these cases not benefited from tonsillectomy were critically studied for other possible foci.

It is in keeping to express the essential features of the histopathology and the physiological role of the lymphoid tissue of the pharynx. The lymphoid tissue of the pharynx known as Waldeyer's ring consists of faucial and tubal tonsils on the side, the pharyngeal tonsil or better known adenoid above and the linguals below. Except for the linguals the others appear fully developed at birth. The crypts in the faucial tonsils have been described as long and bifurcated and often constricted at the opening into the pharynx. This histological arrangement of the crypts makes the faucial tonsils an easy prey to infection. Infections in the tonsils causes a hyperplasia of the crypts with its concomitant desquamated epithelial debris and inflammatory cells, etc. These usually occlude the opening of the crypt into the pharynx making the tonsil an incubator for the bacteria. Since drainage is impeded, the passage not only of bacteria but also their autolysate and soluble toxins is hastened into the blood stream.

The histological arrangement of the crypts of lingual tonsils are a little different. They are short and wide and their openings into the pharynx are funnel-shaped. This fortunate arrangement accounts for the clinical fact that the lingual tonsils are seldom infected and rarely act as foci of infection. The lingual tonsils usually develop in puberty as a compensatory reaction to removal of faucial tonsils and adenoids. When inflamed and enlarged the symptoms are not toxic.

They are usually local symptoms of unproductive cough and a feeling of "lump" in the throat, etc.

The folds in the pharyngeal tonsils (adenoids) may easily become impacted with debris, but drainage is adequate and they seldom if ever act as an incubator like the crypts in the faucial tonsils. The symptoms are usually local.

The tonsils play a definite role physiologically. The lymphoid masses of the tonsils are cytogenic. Lymphocytes are produced in the germinal centers. This is substantiated by histological findings. These lymphocytes are constantly migrating through the epithelium, phagocytizing the bacteria into the crypts, to be destroyed in the lymph nodes. This protection of immunity acts only in a healthy tonsil. This is normally found in young children up to the age of six and seven. This explains the clinical fact that healthy tonsils removed under the age of five very often aggravate the upper respiratory infections instead of diminishing them. This is not applicable to adenoids. They may be removed at any age. Their physiological role is still a moot question.

It is generally agreed that diseased tonsils should be removed. There are times when it is not easy to make such a diagnosis. The hypertrophic tonsil with its acute inflammation, inflamed pillars, and typical history of sore throats offers no difficulty whatever. It is the small submerged normal looking tonsil with no history of sore throat that offers at times embarrassment to the clinician. In these cases a detailed history is highly important. Any history of sore throat or a coryza beginning with a sore throat, or some disturbance in the tonsillar region, should be elicited. On examination, see if some pus can be expressed from crypts by pressure. Retract anterior pillar and look for fibrous adhesions. Enlarged cervical gland in the angle of jaw is highly suspicious of infected tonsils. Dental sepsis, tubercular, leucic and Hodgkin's

disease must all be eliminated to account for this cervical enlargement. Discoloration of pillars, pharyngeal and palatal mucosa from a purplish hue to a deep red inflammation points to infected tonsils. A culture or swab from tonsils is clinically unimportant, as normally the tonsillar region is profusely bathed with many micro-organisms of extreme virulence especially the streptococcus hemolyticus.

A critical review of the general classification for which tonsillectomy is indicated will undoubtedly usher in some thought which will account for some of the failures.

- 1 Upper respiratory infections
- 2 Lower respiratory infections
- 3 Systemic diseases
 - (a) Rheumatic group
 - (b) Cardiovascular group
 - (c) Genitourinary group
 - (d) Miscellaneous conditions
- 4 The subnormal child
- 5 General infectious diseases

1 Upper Respiratory Infections

The following conditions—repeated sore throats, recurrent tonsillitis, head colds, otitis media, sinusitis—are usually termed upper respiratory infections. There is no question that T & A operations have benefited these conditions in the vast majority of cases.

The cases that were not relieved by T & A were carefully studied and the failures in most instances detected.

(a) In many cases the operation was incomplete. Small tonsillar infected tags remained which continued to act as a source of irritation.

(b) Incomplete enucleation of adenoid vegetations.

(c) Marked hyperplasia of the lymphoid tissue of the pharynx compensatory to T & A, which rekindled the train of symptoms.

(d) Found in several cases, the posterior wall of Eustachian tube removed by an overzealous operator, causing stenosis with cicatrization. The otitis media continued with gradual loss of hearing.

(e) Many children before operation were normal and had healthy tonsils and after T & A suffered with far more upper respiratory infections than before. Cases which are quite frequent today, due to the indiscriminate procedures of removing tonsils in a wholesale fashion, cannot be carefully studied in all their details, for when

removed, the protective function of the healthy tonsil is lost, thus rendering the throat more sensitive to the pathogenic bacteria present.

(f) An unrecognized antrum associated with diseased tonsils often clears the antrum. If pathology in antrum is quite advanced, same will continue the train of symptoms.

(g) Tonsillectomized children are better as regards colds, than children with infected tonsils, but no better than children with normal healthy tonsils.

2 Lower Respiratory Diseases

The most important are bronchitis and laryngitis. No relation has been observed between tonsillectomized patients and laryngitis. Two cases of laryngitis cleared up later after tonsillectomy by doing a wide intranasal antrotomy. Laryngitis in these cases was due to a postnasal drip. The alteration of voice associated with tonsillectomy is I believe overstressed. This is applicable more to adults than to children. In some cases it is due from extreme cicatricial contraction with tightening of palate by too wide a dissection. Singers, speakers, etc., should use their voices early in convalescence while the throat still feels stiff and before contraction of the palatal muscles begins. With this in mind, tonsillectomy should improve the voice, if any.

Bronchitis is associated with tonsillectomized patients more often than the statistics given by Kaiser. He states that tonsillectomy does not improve these conditions, in fact, it makes it worse. In many of the cases which I have observed, bronchitis was due to hypertrophied lingual tonsils, a compensatory reaction to tonsillectomy. Coagulation of these improved the bronchitis immensely. In other cases, a hyperplasia of lateral lymphoid pharyngeal follicles, by irritation, was the seat of the bronchitis. This was controlled immediately by one dose of x-ray therapy. In a good number of cases, a postnasal drip usually from an antrum and ethmoid, aggravated the bronchitis. The bronchitis was controlled by suction and drainage of the involved sinus.

It was observed in several cases that an unrecognized allergic factor was the responsible agent for the bronchitis in these tonsillectomized cases.

3 Systemic Diseases

(a) *Rheumatic group*. The prodromal symptoms of the rheumatic syndrome, the beginning muscular pains, the early teno-

synovitis, myositis, and neuritis associated with sore throat, offer the best results from tonsillectomy. I have observed a number of cases where first attack of acute rheumatic fever occurred in tonsillectomized patients. When the acute rheumatic fever or acute arthritis has set in, the prognosis from tonsillectomy should be guarded. If degenerative changes have occurred in the joints, the results are nil. However, if the tonsils are diseased, they must come out.

There are many etiological factors for acute rheumatic fever, and thereby cannot expect a cure in every tonsillectomy. Saroff's examination of the tonsils and tissues of neck at necropsy showed that the rheumatic virus may enter the body through any part of the upper respiratory tract as well as through the tonsils.

I have observed two cases of subacute rheumatism following tonsillectomy clear up after removing an infected tooth. One case greatly improved following the removal of an empyema of the gall-bladder. Several cases improved remarkably following a radical operation on a diseased antrum.

(b) *Cardiovascular diseases* Good results have been observed in the early cases of cardiac embarrassment where the nature of the conditions was slight and transient. Once degenerative processes started in the myocardium or endocardium the benefit from tonsillectomy was slight if any at all.

(c) *Genitourinary Group* Certain acute diseases of the genitourinary tract have a direct relation to acute tonsillitis. I have observed one case of acute hemorrhagic nephritis, two cases of pyelitis and one case of albuminuria of unknown origin—all clear up following tonsillectomy.

(d) *Miscellaneous conditions* The tonsil plays an important part with the thyroid gland. I have seen an acute thyroiditis following a tonsillectomy, and two cases of

adolescent goiter melt away by a tonsillectomy. In thyrotoxicosis, if the condition of the patient permits it, tonsillectomy is strongly indicated. If the thyrotoxicosis is far-advanced, treat the thyroid gland, then later remove the tonsils. I have seen a number of acute exacerbations on an operated thyroid flare up due to embedded diseased tonsils.

The tonsils apparently play no part in the various forms of allergy. Examination of hundreds of allergic patients revealed that tonsillectomy was of no value whatever.

4 The Subnormal Child

The general picture of the subnormal health in children is typical loss of weight and appetite, poor color, fatigues easily and high nervousness and irritability. When this condition is associated with a sore throat, the benefits from T & A are excellent. Those that do not respond, a diseased antrum or a chronic intestinal toxemia is usually the reason.

5 General Infectious Diseases

My experience with this group of cases has been markedly limited. Bailey reports 6,000 cases of diphtheria but he has never seen a death from diphtheria in a case in which the tonsils and adenoids had been removed.

Kerezturni and Park state "tonsillectomy has certainly no marked effect on susceptibility to scarlet fever within six months after it is done." Tonsillectomized children have less complications in diphtheria and scarlet fever than children with tonsils.

There is no relation between tonsils and chicken pox, mumps, whooping cough, and measles.

1021 PARK AVE.

SLICKERS CAN BE OUTSLICKERED

"Beware of Swindlers" is the title of a very interesting article written by Dr. Frank J. Clancy, director, Bureau of Investigation, American Medical Association, and published in the October issue of the *Toledo Academy of Medicine Bulletin*.

Dr. Clancy outlined a number of the favorite tricks resorted to by the gyp artist and imposter and advises physicians how to protect themselves against racketeers. Boiled down his advice is as follows:

1 Don't cash checks for strangers

2 Don't cash checks or lend money to unknown physicians unless you are thoroughly satisfied they are bona fide physicians with a bank account and willing to keep their word.

3 Don't buy books, instruments, insurance, etc., from itinerant salesmen. Patronize local dealers.

4 When in doubt call your local Better Business Bureau, Chamber of Commerce, or similar agency.

5 If uncertain, telegraph the Bureau of Investigation, American Medical Association, for information and advice.

6 Always investigate before you invest.

CLINICAL ELECTROMYOGRAPHY

A Preliminary Study of Normal and Ischemic Muscles

BENJAMIN JABLONS, M D and PHILIP REICHERT, M D, *New York City*

That a change in electrical potential is a phenomenon concomitant with muscular contraction has been known since the work of Du Bois Raymond and Hermann which followed Oersted's invention of the galvanometer in 1820. This physiological fact has been elaborated into the electrocardiographic system of diagnosis by Einthoven, Lewis, McKenzie, and others.

The electrocardiograph has become a very valuable adjunct in the diagnosis of vascular disease of the heart. Much is known of the electrical variations in the cardiac musculature, but comparatively little analogous work has been done with skeletal muscles. Since ischemic areas in the cardiac muscles produced negative waves in the electrocardiogram, it seemed valuable to investigate the effect of artificially induced ischemia in the skeletal muscles and perhaps discover some correlation between such artificial ischemias and those produced in pathological conditions, such as arteriosclerosis and Buerger's disease.

Tracings were first made by the senior author with an amplified tube set devised by Wagner and with the Boulitte electrocardiographic apparatus in 1931, and later with the Nichols Chase Amplifying tube set in 1936, and with the Portographic apparatus of Sanborn and the Sanborn Cardiette in 1937.

Method

Electromyograms were made with a tube amplifying type as well as a string galvanometer. One plate of the electrocardiograph was fastened to the plantar surface of the foot on the outer aspect of the ankle, and the other plate was over the belly of the gastrocnemius muscle. The polarity was so arranged that contraction of the gastrocnemius would produce an upward deflection of the normal muscle, and the same plates and lead arrangement were thereafter used in all cases. It was

found that some practice and instruction were necessary so that the subject would contract the muscle regularly and evenly. That is so that successive contractions would be regularly spaced and of approximately the same amplitude. The patient is seated in a chair, absolutely at rest, with the foot resting squarely on the floor so that the heel is vertically beneath the knee, the leg being at right angles to the thigh. The patient raised the heel, keeping the ball of the foot in contact with the floor by contracting the gastrocnemius muscle of the leg being studied. The blood pressure cuff or tourniquet must be wrapped just above the knee so that varying degrees of ischemia can be produced without disturbing any of the set-up. The entire series of myograms are taken rapidly or slowly in order to minimize the effects of extraneous disturbing factors.

The curve looks not unlike the Greek letter Omega, and is monophasic in character, depending upon the location of the electrodes, i.e., polarity. The curve will either rise from a base line and return to the base line, or will drop from the base line and return to it. Its chief characteristic is that it is monophasic (the deflection is entirely in one direction, which we have called a positive direction) when the circulation through that muscle is intact. In the presence of disturbance of circulation, either caused by disease or mechanically through compression with a tourniquet, this curve assumes a diphasic character, i.e., deflection in two directions. In other words, the curve has a negative as well as a positive component. The diphasic character seems to be constant when ischemia of this skeletal muscle is present. The ischemia need not necessarily be of an extent sufficient to entirely obliterate circulation through the limb. Even in the presence of moderate ischemia, distortion of the curve occurs. This would suggest that in the presence of partial compression or increased irritability of the larger blood

Presented in part by the Senior Author in discussion before the American Heart Association, Kansas City, Mo., May 12, 1936

vessels, spasm of the smaller vessels occur which modify the normal character of the curve obtained

The present method of investigation is to take myograms of apparently healthy people, young adults without symptoms or signs of arteriosclerosis or peripheral vascular disease, and to produce by means of tourniquet, varying degrees of stasis in the circulation of the arm or leg

Fig 1 shows normal electromyograph obtained from the flexor muscles of the forearm in a normal boy sixteen years of age. Fig 2 shows the normal electromyograph obtained from the gastrocnemius muscle of a man forty years of age studied under varying degrees of ischemia. The rapidity of contraction seems to determine the angular or curvilinear character of the curve. Fig 3 shows the character of the various types of diphasic curves present in conditions where no evidence of organic obliteration of the blood vessels was present. Fig 4 shows the curve present in conditions associated with organic closure as indicated by history and oscilometric tracings and recordings. In older patients in whom there is sclerotic changes in the blood vessels of the walls as indicated by x-ray, but in whom there is no evidence of complete closure, the electromyogram is very often monophasic in character, but of exceedingly low voltage. It is needless to mention that the technic for recording this curve is essentially the same as that suggested for obtaining an electrocardiogram. It differs, however, in that the leads which constitute a complete circuit are placed at the required levels in order to obtain a record of the electric voltage sent up by the contracting muscles.

It is also possible to obtain a modified curve with the lead placed over both ankles, for instance in the case of peripheral vascular disease of the lower extremities. This would obviate the suggestion that this curve is produced by the mechanical riding of the lead on the skin of the leg. Incidentally, the same objection would hardly explain the presence of the diphasic variety of curve in peripheral vascular disease. We have found that compression of the limb with the blood pressure cuff inflated either close to or above the systolic pressure of

the subject will convert the monophasic into a diphasic curve. The value of this observation is apparent in the case history recorded below. We have also seen in this case the oscillogram produced by the recording oscillogram show an apparently normal amplitude and pulsation, which failed to give an adequate explanation of the symptoms complained of by the patient. In fact, the oscillogram in

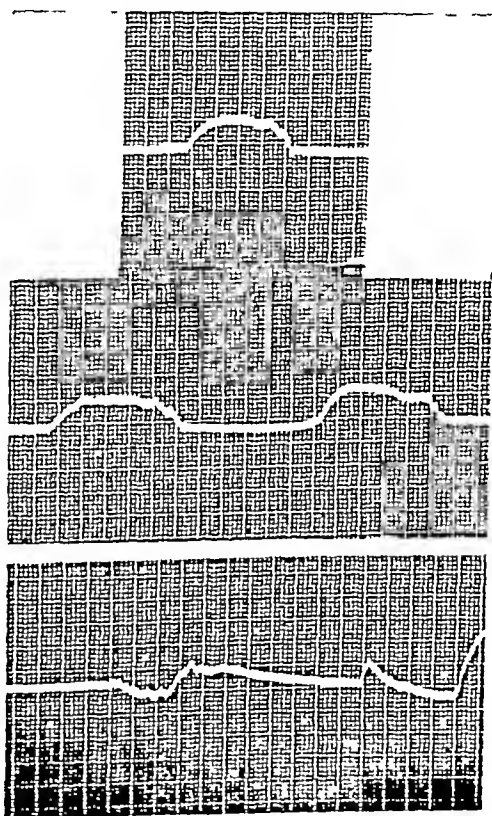


Fig 1

this case was as good or even better than that observed in the normal limb. The electromyogram showing a diphasic character, indicated the cause of the pains of which the patient complained. It is interesting to note at the same time that therapy administered which was to release the spasm of blood vessels was reflected in the change from this type of curve into the normal monophasic curve. Changes have regularly occurred in all cases. We must conclude that they are directly due to the injected material itself. This type of diagnostic test is proving to

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be of considerable value in diagnosing early cases of peripheral vascular diseases, cases in which the disease has not produced sufficient organic change to show complete closure of blood vessels and arrest of circulation. These are the conditions where early diagnosis is extremely important since neglect at this stage may expose the patient to chronic progressive lesions which can not be eventually controlled. In these cases of unilateral involvement, the unaffected limb may serve as a control. At times when it is used for control study, the presence of a distorted curve is a sign of beginning involvement which would not otherwise be suspected.

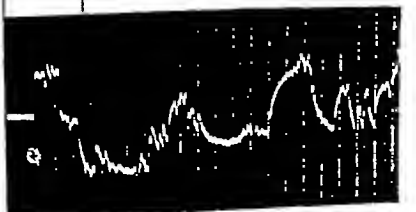
Discussion

It is rather curious that this type of investigation has apparently not found clinical application up to the present time, particularly in view of the fact that intermittent claudication has for a long time often been termed "angina cruris." The use of electrocardiography in "cardiac angina" is well-known and has been extensively described. Many cardiologists have emphasized that in many cases of angina it is not always possible to obtain a characteristic electrocardiographic tracing in cases of cardiac angina. Whether this will prove true in cases of "crural angina" we do not as yet know. It will require considerable study along this line to prove this point. The experimental production of the diphasic curve by subjecting the peripheral vascular system to increasing amounts of compression as shown in Fig. 2 would suggest that much of what is still obscure in the line of vascular and muscle physiology may be somewhat cleared up. We know, however, that studies carried out with compression which were not determined quantitatively have shown interesting phenomena with compression sufficient to obliterate the pulse. We have found that the temporary change in the muscle electric curve persisted for some period even after the compression has been released. This would lend support to the views advanced by Lewis and others who have shown that only with moderate degrees of compression can a reactive hyperemia occur. It would seem

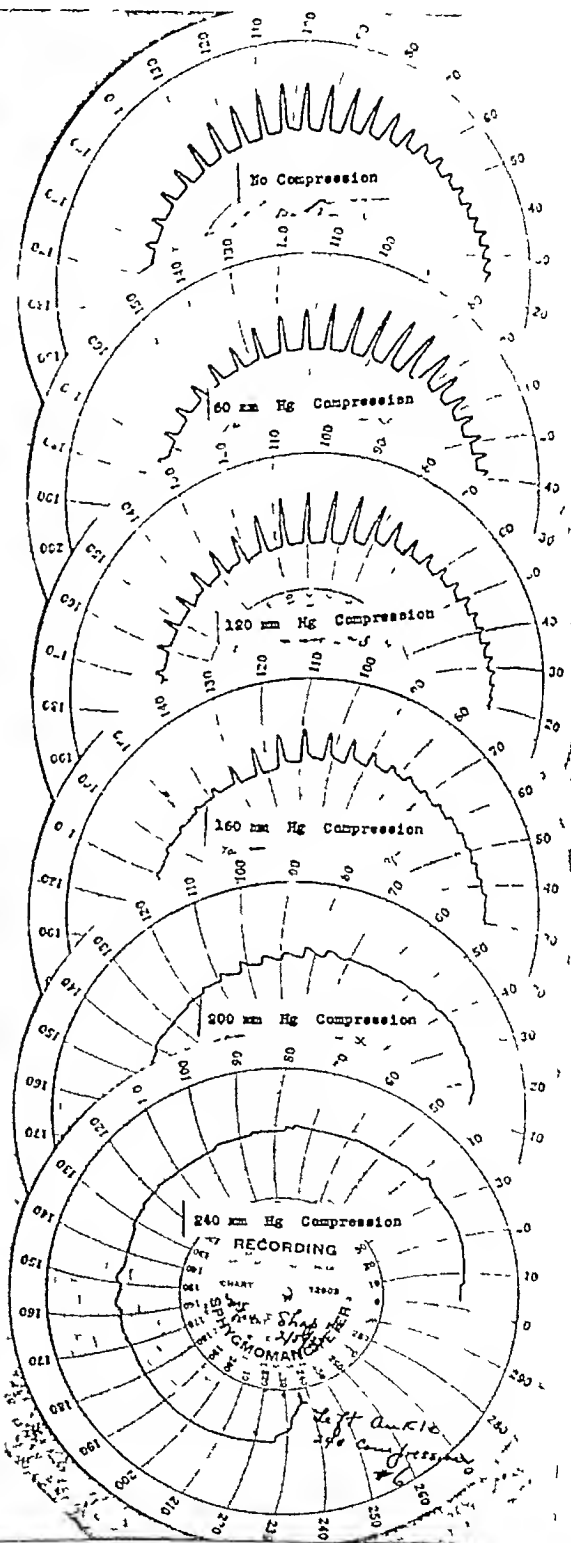
as if compression beyond these points was harmful rather than beneficial.

Fig. 1 is a tracing taken from the forearm muscles of a normal boy sixteen years of age. Tracing was made according to the method described above, and as can be seen from the Fig. 1A and 1B is of the monophasic type and positive in character. The blood pressure cuff was placed around the arm and inflated to a pressure corresponding to that equivalent to 120 mm of mercury as recorded on the Mercury manometer. Electromyogram showed the diphasic character seen in Fig. 1C.

Fig. 2 shows an attempt to study experimentally the effect of compression of varying degrees on the electromyographic curve. The method was similar to that described above with the leads over the gastrocnemius and the ankle of the respective limb studied. Fig. 2A shows a positive monophasic curve obtained without compression, the oscillogram is of a normal type. Fig. 2B shows a slight modification of the curve, although it still fails to show the diphasic character present in Fig. 1C obtained during compression. Fig. 2C shows electromyogram of contracting gastrocnemius at a compression of 120 mm mercury, the oscillogram, if anything, indicates a marked increase in amplitude up to six as compared with five and a half in Fig. 2A. At this point, although this degree of compression is still below the systolic pressure, there is a definite decrease in voltage and a change to the diphasic curve described above. This, despite the fact that the oscillogram would indicate no disturbance in the peripheral circulation. In Fig. 2D, the compression of 160 mm does not obliterate pulsation completely, although the amplitude is decreased to four as compared with six in the preceding curve. There is a tendency to increased predominance of the negative type of curve, although the diphasic character still persists. Fig. 2E represents a compression of 200 mm. Although this is well above the subject's normal systolic pressure, due to some compensatory mechanism, a pulsation begins at 124, is most marked between 110 and 70 and still evident although very faint down to 20. The diphasic char-



11



seconds and then was able to walk on. At that time he was smoking excessively which he had been doing for twelve years. Thought cramps were due to pain following application of Lugol's solution. In Spring of 1936 oscillometric examination showed disturbed circulation. Smoking was discontinued for a period of one month, and oscillometric curve showed temporary improvement and heart symptoms disappeared, although they occasionally recurred after indulgence in smoking. In July, he again found it difficult to walk, as a result of a strenuous emotional conflict. Went away for a six weeks' rest and symptoms gradually disappeared so that he was able to walk again. In the fall, he found that he was able to walk considerable distances (six to seven miles). During that period still had feeling of tautness of muscle in right foot. Oscillometer showed a good pulsation and symptoms disappeared completely, for two or three months. Has had no trouble walking approximately five or six miles without any difficulty or cramps. Fibrillary twitching appeared as well as a sensation of tightness in right leg. Tooth was extracted at that time and root got into maxillary sinus which neces-

sitated opening sinus. Sinus was drained and curetted and found to contain granulation and polypoid tissue. Following this, skin grew worse. At times, he still gets twitching in legs while driving. During the last two months this has become more marked. This sensation is present constantly in the right leg, and is mainly below the knees. When feet rest on floor, right leg feels very heavy. These sensations do not lessen with walking. When undergoing an unpleasant mental experience develops an uncomfortable sensation in the right leg as if sitting on a sharp-edged chair. Fig 3 shows apparently normal oscillometric curves in both ankles. The electromyogram of the affected leg is diphasic in character whereas the normal leg shows the normal positive monophasic curve.

CASE 2. E. W. male, aged thirty-one, Russian Hebrew whose occupation is a singer. History of having had frost bite in 1919. At the time both feet were frost bitten the right foot more than the left. Developed an ulcer at the time. It healed slowly and it has left a depressed area close to the nail of the right big toe which is surrounded by thickened skin. He

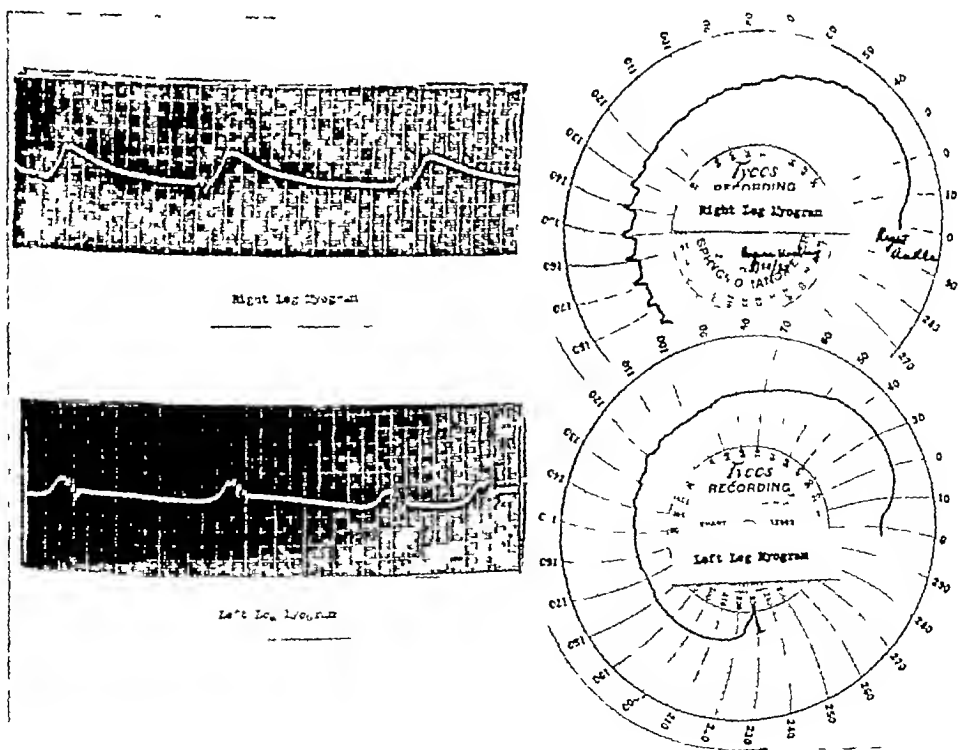


Fig 4

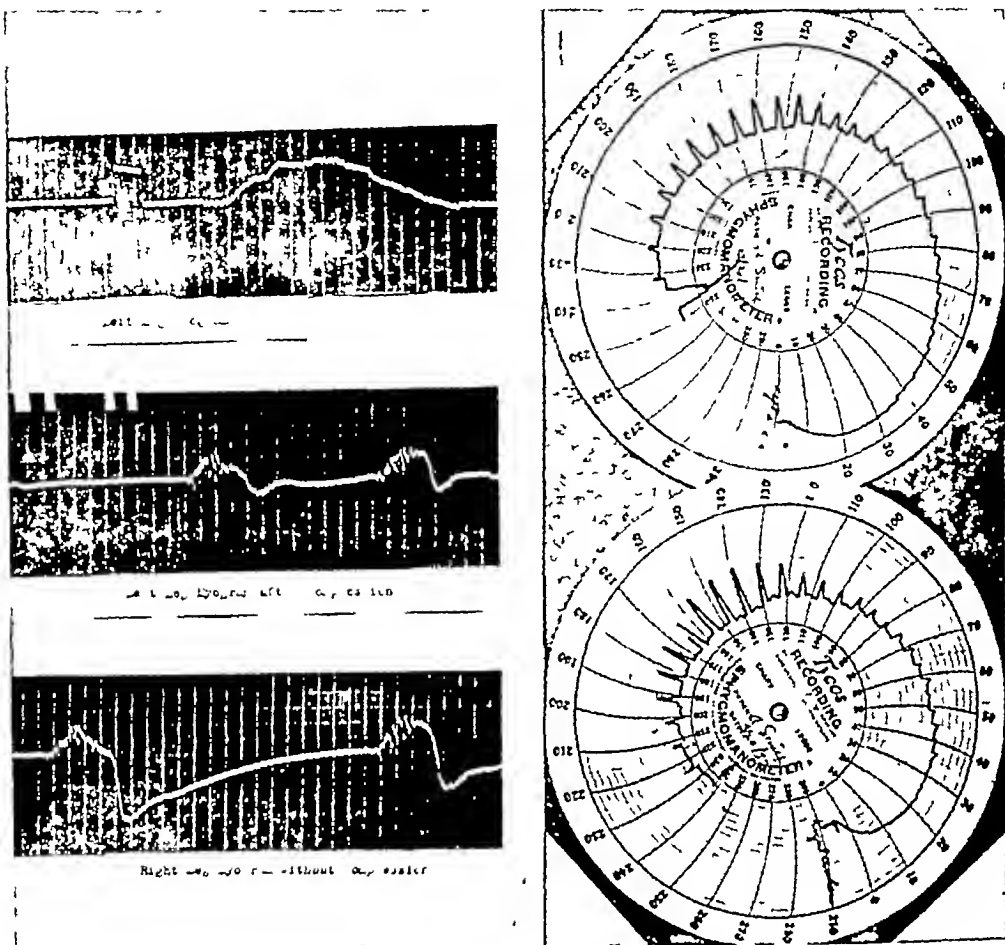


Fig 3

acter is definitely maintained, the curve being also predominately negative. In Fig 2E where the compression of 240 has completely obliterated the pulse, the diphasic character is present with a predominance of the negative type. At this point there are small accessory curves probably induced by changes in the skin circulation. Fig 3 illustrates a clinical application of these experimental findings.

Case Reports

CASE 1 A S, American lawyer, male, age thirty, under observation since January 1936 for allergic condition of the skin persisting for two years. First symptom which he noticed was curling of toenails which developed in the summers of 1927-28 when he was wearing very tight breeches. Since that time, circulation was

not particularly good. Was subject before that to attacks of ringworm which lasted for some time. Cramping sensation of feet (as if arches had broken down) in the fall of 1934 (with a very severe attack of ringworm lasting for several months, treated with Lugol's solution). About March 1936 developed sensation of cramp in extremities, leg and hands, similar to extreme muscular soreness. This feeling was present all the time in both legs, mainly on right aggravated by walking. Twitching of muscles occurred at varying intervals (feeling of bubbling under the skin). Cardiac symptoms became a little more marked and continued definitely at that time. The right leg seemed as if gripped in a vise occurring intermittently, aggravated by mental strain and effort, and physical overwork. Physical effort increased soreness, so that after a while sensation in legs, mostly in right became so painful that he had to stop, would stop for thirty

HUMAN FEMALE STERILITY

Etiological Factors

CHARLES P. SHELDON A.B., M.D., Albany

*From the Department of Gynecology and Obstetrics of the Albany Medical College
and the Albany Hospital*

Dysgenesis is a problem of major importance in American (white) families. It has been estimated that twelve per cent or more of matings prove to be barren, and that in the United States there are 2,000,000 childless couples in the child-bearing age¹⁻³

During the years 1930 to 1935 inclusive, there were 151 admissions to the gynecological service of the Albany Hospital for the purpose of investigating the probable cause or causes of infertility in the female partner of a sterile mating. These cases represent 1.8 per cent of all gynecological admissions during the period under investigation. There were six re-entries, one patient was admitted four times during the six-year interval. One hundred and twenty-eight were under the care of private physicians, as contrasted with twenty-three dispensary cases. Only one patient was colored.

This analysis in no way gives an index of female sterility in the community. A certain percentage of cases are investigated in doctors' offices and never reach the hospital, whereas others go to other hospitals. The great majority of couples never seem to do anything about their misfortune, which is borne out by the fact that 151 cases represent only 0.3 per cent of all admissions to the hospital during the six-year period. Many of those who do undertake an investigation have procrastinated, hoping that Nature will help solve their problem. The marital histories of these cases revealed that the majority had been married five or six years before they were admitted to the hospital for study. Five, however, had been married less than one year.

I desire to express my deep appreciation to Dr. Arthur W. Wright, Pathologist of the Albany Hospital, for much valuable assistance in the preparation of the pathological material.

Approximately one-half (59 of 129) of the cases in which the duration of marriage was known were between the ages of twenty-two and twenty-six inclusive at the time of marriage. The youngest was fifteen, and the oldest was thirty-three. Twenty-four per cent were over the age of twenty-five before marriage. These statistics reveal the influence of the recent economic depression which has contributed toward late marriages and delayed childbirth. Since fertility in the female reaches its peak in the middle of the third decade of life and rather rapidly diminishes thereafter, some of these women may have failed to bear children because procreation was postponed beyond the most favorable time.

One hundred and thirty-six had never been pregnant and were therefore, cases of primary sterility (Table I).

The past medical history was entirely negative in ninety-one cases. Some form of pelvic operation or other therapy had been undertaken in thirty-four instances before the current investigation (Table II).

Rubin⁴ points out the unfavorable influence of appendicitis upon fertility whereby peritoneal adhesions seal the fimbriated ends of the Fallopian tubes, this must be only an occasional factor.

Constitutional defects may have been important in thirteen cases (8.6 per cent) (Table III).

On admission to the hospital sixty-five of the patients stated that their health was normal. In the remainder, nervous symptoms were prominent and in some instances may have contributed to their infertility, but as a rule they were more likely the effect rather than the cause (Table IV).

The principal abnormality in the menstrual histories was irregular bleeding (Table V).

*Read at the Annual Meeting of the Medical Society of the State of New York,
Rochester, May 26, 1937*

noticed two years ago that it was difficult for him to walk without developing a cramp after several blocks. Today he has to stop six or seven times in traversing a wide avenue block. He has noticed a definite difference in temperature in his right leg. His right leg is colder, and he has also noticed recently that his right hand is somewhat discolored when it is allowed to hang down. The right hand is colder than the left. Left foot when in the pendent position turns bluish-red. It is cold, and on deep pressure over the calf muscle the patient complains of tenderness. Patient smokes approximately forty cigarettes a day. The oscillograms taken March 30, 1937 show only a faint pulsation between 140 and 110 (systolic pressure) on the right ankle, and on the left ankle shows pulsation present between 190 to approximately 70, there is an amplitude of about 1.75 mm in the right and 0.75 mm on the left. The electromyograph taken with the technic described herein shows a normal positive monophasic curve in the left leg and a characteristic diphasic curve of low voltage in the right (Fig 4).

Summary

1 A method is herewith presented by

which the electrocardiographic apparatus can serve as an index of normal skeletal muscle function by recording an electromyogram of a constant type in subjects in whom there is no muscle pathology.

2 Compression of the circulation in normal subjects converts the normal monophasic positive curve into a diphasic curve containing both positive and negative elements.

3 This diphasic—i.e., positive and negative curve—is present also in cases where organic or functional spasms of blood vessels interfere with the normal circulation of the muscle being investigated.

4 This method serves as a diagnostic criterion of occlusion of blood vessels in the extremities due to either spasm or disease which may not be sufficient to interfere with the pulsation of the major blood vessels, but which nevertheless is sufficiently intense to produce symptoms.

5 It therefore becomes one of the earliest diagnostic tests of beginning peripheral vascular disease.

140 W 58 St
4 E 88 St

GOLDEN OPPORTUNITY FOR RURAL NEW ENGLAND DOCTORS

Through the generosity of William Bingham 2d, a medical center has been created in Boston for the rural physicians of New England that they may pursue postgraduate study at no expense to themselves, reports the *Journal of the Connecticut State Medical Society*.

Mr Bingham's gift makes possible fellowships for a month's work in general medicine at the New England center, together with a stipend of \$250. So-called exchange doctors will be arranged for to

substitute for the absent doctors in their home towns.

Four-week courses were held in October and November and are planned for January, March, and May, 1938. Six fellowships are offered for each of these months. This postgraduate work is under the auspices of the Medical Department of the Boston Dispensary and Tufts College Medical School. All of the instructors are men of high standing and the various courses will be up-to-date and authoritative.

A MEDICAL PUZZLE DEPARTMENT

Detroit doctors who encounter puzzling problems have the privilege of asking advice or assistance from the Counsellor Service of their County Society. Dr C E Umphrey, president of the society, remarks in the *Detroit Medical News*:

The plan is a simple one. If we desire friendly, impartial advice, we are assured that this committee of eight of our fellow physicians stand ready at all times to lend a helping hand. It is only necessary that we write the

Executive Office asking for this service. The office will then arrange for two of our counselors to meet with you on a certain date at the Society headquarters. The meeting will be a friendly luncheon with no minutes kept.

Very often the man just beginning his professional life in our city may have matters grave, perplexing, baffling, that if talked over with an older man would be solved. Under the friendly tutelage, or perceptorship if you wish, one could avoid sorrow, and sometimes catastrophe.

etc., but having regular uterine hemorrhages

It is possible to determine whether a woman is ovulating by examining the endometrium histologically and by differential staining for glycogen just before an expected menstrual flow. Lack of secretory activity at this time indicates the absence of the corpus luteum, which results in a lack of progesterone, the hormone specifically concerned with premenstrual changes in the endometrium.

A review of forty-four cases of this series, in which the menstrual histories are recorded, reveals an endometrial picture consistent with the day of the cycle in thirty-nine, using Herrell's classification¹⁵. Of the remaining five, three had reached the sixteenth, nineteenth, and thirty-second days of irregular cycles without demonstrable evidence of secretory activity in the endometrial picture. One patient was supposed to be menstruating at the time of curettage, but the endometrium was of the late proliferative phase. The fifth case was that of an obese white woman, twenty years of age. She had been married a year and a half. Amenorrhea had been present for six months. Endometrial studies revealed no evidence of progesterone action. At laparotomy, the ovaries were found to contain multiple small cystic follicles. The tunica albuginea was thick, imperforate, and unscarred. This was, in other words, a typical case of sterility due to failure of ovulation in a patient with a primary endocrinopathic disturbance.

There were five cases of oligomenorrhea. In these the expected date of the next menstrual flow was unknown. There was no evidence of progesterone action in their histological sections.

There was no case in this series with a history of regularly recurring, normal menses that demonstrated an endometrial picture consistent with that of anovular menstruation. This probably is only rarely encountered in the human species¹⁶. However, failure of the ovarian mechanism is commonly seen in women with abnormal uterine cycles.

A study of twenty-four cases of so-called functional menorrhagia revealed progesterone action in fourteen. Of the remainder, there was a girl of twelve and

seven women approaching the menopause who gave histories of profuse, prolonged menstrual flow. None of these showed evidence of progesterone action, and in five instances the endometrial picture was that of cystic hyperplasia characteristic of ovarian failure.

In all cases of sterility, therefore, in which a history of menstrual irregularity can be elicited, careful endometrial studies should be carried out to determine if ovulation is occurring. Lack of secretory activity in the endometrium just before the onset of menstruation is the clue to the problem. The fact that it is often difficult to predict this time with any degree of certainty complicates the studies.

TABLE VI—PHYSICAL FINDINGS

Leukorrhea	9
Obesity	6
Anemia and poor health	5
Malnourishment and poor health	4
Pulmonary tuberculosis	2
Diabetes	1
Heart disease	1
Enlarged thyroid	1

TABLE VII—PELVIC EXAMINATION

Negative	65
Cervical erosion	20
Cervical stenosis	20
Eversion of cervical mucosa	8
Mucous plug in cervix	3
Laceration of cervix	1
Retroversion	6
Retroflexion	5
Endometriosis post culdesac	5
Infantile pelvic organs	5
Unruptured hymen	3
Leiomyoma of uterus	2
Bicornuate uterus	1
Pyometra	1
Vaginitis (<i>Trichomonas vaginalis</i>)	1
Adherent adnexa	1

TABLE VIII—TUBAL INSUFFLATION

Non patent	43
Patent	93
Were partially closed	8

TABLE IX

Fibrous ovaries with hard, white capsules	3
Pelvic peritonitis (tubercular in 2)	3
Salpingitis (tubercular in 2)	3
Uterine leiomyomata	3
Retroflexion	2
Previous bilateral salpingectomy	1
Dermoid cyst	1

TABLE I—PAST OBSTETRICAL HISTORY

Spontaneous abortion (one had had 3)	5
Induced abortion (one had had 2)	3
Miscarriage (one had had 2)	3
Extrauterine pregnancy	2
"One-child" sterility	2
Primary sterility	136

TABLE II—PAST SURGICAL HISTORY

Appendectomy	23
Curettage	8
Suspension of uterus	6
Salpingectomy	5
Unilateral (2 ectopic pregnancies)	4
Bilateral	1
Lysis of adhesions (once for endometriosis)	2
Myomectomy	1
Dilatation of cervix	1
Lipiodol injection	2

TABLE III—CONSTITUTIONAL DEFECTS

Thyroidectomy	5
X ray treatments for hyperthyroidism	1
Tuberculosis	3
Rheumatic heart disease and anemia	1
Anemia and hypotension	1
Nephritis	1
Diabetes	1

TABLE IV—GENERAL SYMPTOMATOLOGY

Dysmenorrhea	55
Nervousness	7
Dyspareunia	6
Pelvic pain	5
Migraine	4

TABLE V—MENSTRUAL HISTORY

Normal menses	80
Unknown	37
Irregular	17
Oligomenorrhea	5
Metrorrhagia	4
Menorrhagia	4
Interval bleeding	4

Physical findings were of significance in twenty-nine instances. There was a single case with palpable enlargement of the thyroid although five had had thyroidectomies performed in the past and one had been given roentgenotherapy for hyperthyroidism. Only six were considered to be obese. Thyroid therapy in this group of 151 cases would seem to have been of only limited usefulness (Table VI).

Forty-four patients had Wassermann tests but only one was recorded as positive.

It is wise to determine if the patient's health permanently contraindicates pregnancy before becoming too enthusiastic about the cure of sterility. On the other hand, the correction of poor health may overcome infertility and, at the same time, put the patient in such condition that she is physically able to continue the pregnancy.

Sixty-five cases presented nothing of note at pelvic examination. Thirty-six per cent demonstrated some form of local lesion about the cervix. Only five had infantile pelvic organs, which is in accord with the observation of other workers on sterility⁵ (Table VII).

A Rubin test, using air as the insufflating agent, was performed in 136 cases (Table VIII).

Nine of the forty-three nonpatent cases subsequently became pregnant—seven of whom were delivered of living children at term. One patient aborted and another had a tubo-ovarian pregnancy. This indicates the unreliability of insufflation as a means of testing tubal patency. A negative test should be repeated. Lipiodol injection should be carried out on all doubtful cases before expressing a definite opinion to the patient.

Eleven of the cases disclosed findings at laparotomy as shown in Table IX.

The three cases with fibrotic ovaries may have been sterile because of failure of ovulation. In recent years, this factor has been repeatedly stressed as a likely cause of sterility in many otherwise inexplicable cases⁶⁻⁹. Ovulation is said to be absent even though menstruation may be quite normal. This belief was strengthened by experimental studies with the *Macacus rhesus* monkey in which it has been possible to demonstrate anovular menstruation¹⁰⁻¹². Lack of ovulation is reflected in the endometrial picture by absence of secretory changes which are normally seen in the differentiative phase of the cycle. In other words, progestin action is entirely lacking.

Maser and Ziserman¹³ studied women complaining of functional sterility and found anovular cycles in 58.5 per cent. Anspach and Hoffman¹⁴ reported anovular menstruation in 21.4 per cent of women complaining of obesity, sterility,

Meaker and his coworkers¹⁷ have stressed the summation or totality of factors as the cause of human infertility. This study corroborates their convictions. A search should be made for every factor, male or female, which has a deleterious effect on the fertility of that particular mating. In the female local genital disorders play a prominent role, but constitutional defects are equally important. Fragmentary knowledge of endocrinopathic disorders has made this complex problem still more intricate until it is now necessary to subject the partners of sterile matings to the investigations of the urologist, endocrinologist, gynecologist, and internist in order to complete the study of each case and assure them the greatest possible likelihood of successful gestation.

Conclusions

1 Etiological factors in the female partner of 151 sterile matings, investigated at the Albany Hospital between 1930 and 1935 inclusive, have been reported.

2 These cases represent only 1.8 per cent of all gynecological admissions and 0.3 per cent of all admissions to the hospital during the six-year interval.

3 Ninety per cent were cases of primary sterility.

4 Approximately one-half of the patients were between the ages of twenty-

two and twenty-six at the time of marriage, twenty-four per cent were over the age of twenty-five.

5 Constitutional defects may have been important in 8.6 per cent.

6 The general symptomatology was characterized by a high incidence of nervous symptoms.

7 The chief abnormality in the menstrual histories was irregular bleeding.

8 There was only one positive out of forty-four Wassermann tests made.

9 Forty-three per cent had normal pelvic organs, thirty-six per cent demonstrated a local cervical lesion, only five cases had infantile pelvic organs.

10 Out of forty-three cases with non-patent Fallopian tubes, nine subsequently became pregnant. Air was used as the insufflating agent.

11 In women complaining of sterility with a history of regularly occurring, normal menses, some cause other than ovarian failure is usually the explanation for their inability to conceive.

12 In all cases of sterility where a history can be elicited of abnormal uterine bleeding, careful endometrial studies should be carried out to determine if the ovary is ovulating.

13 Prognosis is markedly influenced by the degree of care which is exercised in search for all factors which may have a deleterious effect on fertility.

ALBANY HOSPITAL

References

- 1 Meaker, S. R. *Practitioner*, 132 326, 1934.
- 2 Meaker, S. R. *Human Sterility*, p. 11, Baltimore, Williams and Wilkins Co., 1934.
- 3 Lotka, A. J. *Proc. Nat. Acad. Sc.*, 14 99, 1928.
- 4 Rubin, I. C. *Curtis' Obstetrics and Gynecology*, p. 187, Philadelphia, W. B. Saunders Co., 1934.
- 5 Rowe, A. W. Jr. *Obst. & Gyn. (Brit. Emp.)*, 42 975, 1935.
- 6 Novak, E. *Practitioner*, 132 313, 1934.
- 7 Novak, E. *J. A. M. A.*, 102 452, 1934.
- 8 Novak, E. *Surg., Gyn. & Obst.*, 60 330, 1935.
- 9 Jeffcoate, T. N. A. *Brit. M. J.*, 1 345, 1935.
- 10 Corner, G. W. *J. A. M. A.*, 89 1838, 1927.
- 11 Hartman, C. *Anat. Rec.*, 35 13, 1927.
- 12 Hartman, C. *Studies in the Reproduction of the Monkey Macacus (Pithecus) Rhesus, with Special Reference to Menstruation and Pregnancy, Contrib. to Embryol.*, vol. 23, 1932. Publ. Carnegie Inst. of Wash.
- 13 Mazer, C. and Ziserman, A. *J. Am. J. Surg.*, 18 332, 1932.
- 14 Anspach, B. M. and Hoffman, J. *Am. J. Obst. & Gyn.*, 28 473, 1934.
- 15 Herrell, W. E. and Broders, A. C. *Surg., Gyn. & Obst.*, 61 751, 1935.
- 16 Corner, G. W. See Reference 4.
- 17 Meaker, S. R. *J. A. M. A.*, 107 1847, 1936.

ONE OF THOSE "INTIMATE" MEETINGS

A disgusted county secretary in another state sent this report of a meeting to his state medical journal:

"The _____ County Medical Society met on the regular date, June 8, in front of Burns Drug Store with the president and secretary only attending. We were con-

servative in our remarks but considerably less so in our thinking about the absent members."

An Ohio medical editor who quotes this wonders if the secretary had sent notices to the members and invited a capable speaker.

ESOPHAGEAL PERFORATIONS

rior wall of the esophagus about two inches from the cricopharyngeus constriction. Here a fine probe was introduced and a tract followed running downwards and outwards for about one inch in length and ending blindly. A small hematoma was found in the extra esophageal tissues between the esophagus and trachea and opposite the esophageal puncture. There was also an air bubble present immediately surrounding the puncture in the mucous membrane. No visible perforation nor foreign body was discovered after a prolonged and careful search.

Conclusions

It becomes evident that such symptoms as subcutaneous emphysema, pain in the back, extreme shock and restlessness, and increasing dyspnea and cyanosis are due

to an esophageal perforation. But these symptoms *per se* are not sufficient to cause death within six hours. I have seen patients with large demonstrable perforations live as long as five to six days and even longer. Acute mediastinitis, the most frequent complication of esophageal perforations, does not cause death in six hours. Most likely the patient had a minute valve-like perforation which permitted a gradual and persistent one-way accumulation of air into the mediastinum with each act of swallowing thereby causing increasing pressure upon the heart and large pulmonary vessels giving rise to the aforementioned symptoms and terminating in death within six hours.

311 E. 17 St

TO SAFEGUARD NEW REMEDIES

The Food and Drug Administration, declaring that seventy-three persons were known to have died as a result of taking the drug preparation, "Elixir Sulfanilamide," has urged Congress to enact stronger drug-control legislation. Responding to a request from Senate and House for a report on the deaths, the administration recommended that Congress

1 License control of new drugs to make sure that they will not be generally distributed until experimental and clinical tests have shown them to be safe for use.

2 Prohibit drugs dangerous to health when administered in accordance with the manufacturer's directions for use.

3 Require drug labels to bear appropriate directions for use and warnings against probable misuse.

4 Prohibit secret remedies by requiring that labels disclose fully their composition.

The administration said that the entire amount of 240 gallons of "Elixir Sulfanilamide" manufactured and sold by the S E

Massengill Company, of Bristol, Tenn., had been accounted for by government representatives working in co-operation with the manufacturer and druggists and physicians who participated in its distribution.

Besides the seventy-three deaths cited, the administration said, twenty other persons who took the medicine died, but it had not been established that the drug was exclusively responsible for these fatalities. Describing sulfanilamide as a "valuable drug" and not responsible for the deaths, the report attributed the fatalities to diethylene glycol, which was used as a solvent in making the liquid "elixir."

"Citations are already in preparation for him to show cause why the cases should not be referred to the Federal courts for criminal prosecution," the report stated, adding that the company had paid fines in 1934 and 1937 for alleged violations of the food and drug act.

FIGHT INFERIOR MEDICINE

Doctors, the time for speculation is over. What we need now is *united action*. We are in the Right. We have no selfish, profiteering motives. We have at stake great Principles, tried and true. Our ordained responsibility is the protection of the people's health. We fight inferior

Medicine. We must stand one great, unified phalanx to defend Medicine from adulteration. We brook no battles, but if there is to be a war, let us be prepared for war, nay, **TO WIN THAT WAR!**—
President Henry E Perry, M.D., Michigan State Medical Society

Case Reports

CASE 1 Chicken bone in cervical esophagus R C, a robust male, thirty-eight years of age, came to the office of Dr Adolph Greenstein on December 22, 1932 complaining of having eaten chicken pie the day before when suddenly he felt a choking sensation and severe sticking pain in the throat. As Dr Greenstein could find nothing by mirror laryngoscopy, he at once realized that the bone must be located in the cervical esophagus. Accordingly, I performed an esophagoscopy under local anesthesia, using ten per cent cocaine to which a few drops of epinephrin solution were added. A short, adult esophagoscope and a bone located about one-half inch below the cricopharyngeus constriction. This was situated obliquely across the lumen and embedded into both lateral walls of the cervical esophagus. Because of its location and position, the bone had to be divided and milked from its bed before extraction was possible.

The patient felt greatly relieved immediately after the esophagoscopy but a few hours later subcutaneous emphysema appeared in the neck—which in itself is not a serious complication and frequently observed following manipulations of the pharynx and upper esophagus. His temperature fluctuated between 100 and 102° F, his pulse between eighty and ninety.

Swallowing improved from day to day and he seemed well on the road to recovery when suddenly, twelve hours before operation and seven days after esophagoscopy, stormy symptoms appeared with extensive swelling and induration of the tissues of the neck which necessitated transfer to the hospital and immediate operation. A large quantity of pus was found in the space between the vertebral column and the esophagus. Drainage was instituted and the patient sent to bed. He expired December 30.

Autopsy was performed and a purulent anterior and posterior mediastinitis was found due to a perforation in the posterolateral wall of the cervical esophagus.

Comment In this particular case the bone, close to one and a half inches in length and sharp on both ends, was found immediately beneath the mouth of the esophagus, across its lumen and embedded into both lateral walls of the esophagus—especially the left lateral. In removing it, the wounded walls were distinctly seen but no perforation was expected nor recognized. The wounded areas were thoroughly swabbed with ninety-five per cent alcohol and the patient instructed to take nothing

but sterile water for the next forty-eight hours. This is just another esophageal tragedy which is encountered occasionally by every ensophagoscopist.

CASE 2 Fish bone in the cervical esophagus N P, a high school principal, forty-eight years of age, presented himself on February 8, 1936 at 3 30 P M with a history of having swallowed a fish bone the evening before. His family physician who accompanied him told me that all day long he had difficult and painful swallowing. Before coming to my office he was examined by Dr A A Schwartz who informed me that he found definite edema of the arytenoid region and adjacent tissues and accumulation of secretion in the pyriform spaces. Mirror laryngoscopy at my office corroborated the above findings. As no foreign body was seen in these regions and as the patient had severe pain on swallowing and pointed to a spot in the lower anterior portion of the neck where pain was most agonizing and acute, I decided to admit him to the hospital at once and perform an esophagoscopy.

Accordingly, this was carried out about 4 30 P M under local anesthesia using a Seiffert type side-ways opening esophagoscope. The mouth of the esophagus was edematous and swollen and so were the arytenoid region and aryfolds. About two inches below the mouth of the esophagus, I saw and demonstrated a toothpick-like projection in the anterior wall. This was seized with alligator forceps but as it proved to be a piece of curled-up mucous membrane it was left alone. Not finding the foreign body, I removed the short esophagoscope and decided to explore the entire lumen of the gullet. The patient, however, became very excitable, screamed, coughed, vomited, and moved his bowels on the table. When he quieted down, I explored the entire esophagus with an adult Mosher esophagoscope but found no foreign body.

About a minute or two following the second esophagoscopy, I found subcutaneous emphysema in the neck and face followed by pain in the back and difficulty in breathing. Later on he became very restless and tossed from side to side. So much so that morphine and other narcotics couldn't control him. An injection of avertin by rectum put him to sleep. But a few hours later he developed stertorous breathing, an irregular pulse rate and marked cyanosis of the extremities. Exitus at 11 30, six to seven hours after the esophagoscopy.

Postmortem by the Medical Examiner the following afternoon revealed a small puncture in the mucous membrane of the ante-

PRIMARY MELANOBLASTOSIS OF THE MENINGES

ISAAC SHAPIRO, M D , F.A.C.P. and ELLIS KELLERT, M D , *Schenectady*

The rare occurrence of primary melanoblastosis of the meninges and its unusual symptoms of subarachnoid hemorrhage, led to the report of this case and a review of the literature

Mrs W D, age thirty-one, school teacher, was referred to me by Dr David Vrooman Her chief complaint was headache, at first limited to the right side of the head, but later became generalized

Past history and family history were irrelevant as far as pertaining to this case

Her present illness dated back to about six weeks prior to admission to the hospital During this period she complained of severe headaches, at times limited to her right occipital region and radiating to the right orbital region and other times the headache was throbbing and generalized She also complained of blurred vision Associated with her headaches, she had attacks of nausea and vomiting The family stated that she was apathetic and had periods of insomnia, alternating at times with periods of lethargy She was forgetful and walked about in a daze She attended to her school duties until three days before her admission to the hospital Suddenly she became overactive, restless, uncontrollable, and uncooperative. Upon examination at that time, she presented a rigid neck, a suggestive internal strabismus There were no other cranial nerve palsies The eyegrounds appeared normal All the reflexes were markedly diminished, but there was a definite bilateral Babinski A lumbar puncture was done and the three tubes contained nonclotting blood and the supernatant fluid was xanochromatic. The cell count was six and the Wassermann test was negative There was no evidence of any Block The remaining laboratory findings were normal X-ray taken of the skull showed no evidence of any pathology A diagnosis was made of subarachnoid hemorrhage, probably due to aneurism of a basilar vessel or tumor

Hospital course She was in the hospital for twenty-seven days At times she became perfectly normal and orientated and at other times, very restless, extremely overactive or very stuporous When she complained of severe headaches, and her pulse was slow, about fifty-two, lumbar punctures were done to release the pressure. Every lumbar

puncture showed either bloody fluids or xanthochromia Finally she became stuporous and went into a coma and expired We were fortunate in obtaining a postmortem examination

Pathologic Report

"There is received a brain which weighs 1575 grams It is symmetrical, the convolutions slightly flattened and the sulci effaced Clinging to the surfaces are small clots of blood which are most abundant over the right occipital lobe The base of the brain is blood stained, the vessels of the circle of Willis apparently normal The entire pia is deeply injected and along the main fissures shows many areas of opacity The cortical vessels are not remarkable and the gyri show no unusual change. The tip of the right occipital lobe is black as though the pia were deeply stained The mesial and superior surfaces are most involved and the black character fades into a brown pigmentation over the adjoining convolutions The cuneus and the gyreis bordering the occipital and paroccipital fissures show the greatest pigmentation

"On serial horizontal sectioning there is found black clot-like material filling the widened sulci of the right occipital lobe One sulcus measures 0.5 cm in width Everywhere the cortical gray matter appears brownish black in varying degree but most pronounced in the occipital, frontal and parietal lobes particularly their lower portions The white matter shows no trace of the pigment. The pia, where thickest, appears most pigmented The velum interpositum shows marked pigmentation, the choroid plexuses none The ventricles are not dilated, their lining surfaces are smooth and pale The third ventricle is filled with gelatinous blood stained material The basal nuclei appear normal The substantia nigra in the pons is normally abundant and distributed The pons, medulla and cerebellum appear normal

Microscopic Description

"Sections from various portions of the brain including the vertex and base show greatly thickened meninges infiltrated by tumor cells In the right occipital lobe the growth is abundant, very cellular and pig-

Read at the Annual Meeting of the Medical Society of the State of New York, Rochester, May 25, 1937

ta anterior. In rare cases, even the convexities of the brain are pigmented, but always in the sulci, not upon the gyri.

The forms of pia melanophore cells are manifold, and their sizes are variable. They contain various amounts of pigment of different colors. The pigment granules of blue-eyed individuals are lighter. A study of the relation of pigment to age shows that the pigmentation develops after birth, appearing first where the medulla oblongata continues into the spinal canal. During the following years, typical localization of the pigment develops. In older individuals, it seems that the pigment production ceases. The pigmentation of the iris is in direct proportion to pia melanosis, but the pigmentation of the skin is not. There is no disease in which an increase of the pia melanosis has been observed. It is these pigment cells that are important pathologically, because they may be the origin of melanotic tumors.

Comparative anatomical research shows that pia melanosis differs in man and in animals. The difference can be explained

by the bodily position and posture in man and animal. It cannot be stated whether pathological conditions of the brain have any effect upon the pigmentation of the leptomeninges. There is a certain relation of pia melanosis to blood supply, but it is not characteristic. The localization of pigment is not determined by vascular arrangement but by mechanical factors.

There are considerable pia chromatophore cells in places or sites where there is stagnation of the cerebrospinal fluid, especially in the recessus of the meninges, and also where the contact between the cerebrospinal fluid and pia is firm. A chromogenic substance in the spinal fluid might explain the whole picture of pia melanosis.

It was Virchow² who described the first case of melanosarcoma of the meninges. Since then Thorel, Grohl,³ Foote,⁴ Boit,⁵ and more recently Farnell and Globus,⁶ Winkelmann⁷ and Netherton⁸ have described primary melanotic tumors of the pia.

It is not unusual to find metastatic

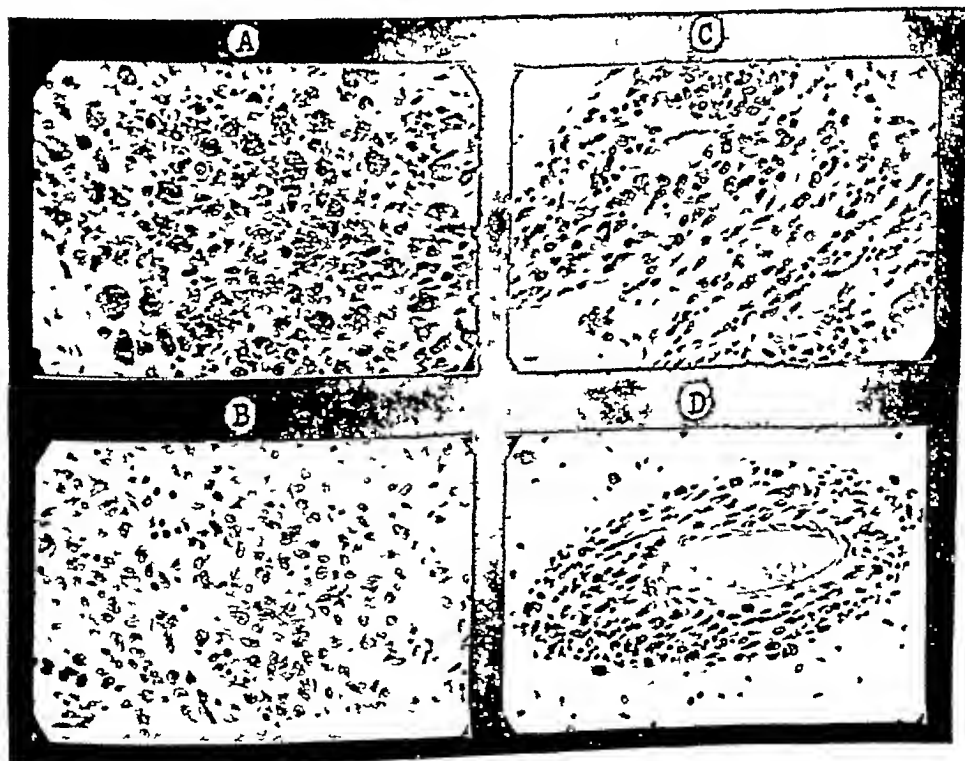


Fig. 3 (A) Tumor cells crowded with dark brown pigment granules. (B, C) Tumor detail. (D) Tumor growth about vessel in cortex. (Photomicrographs X-400)

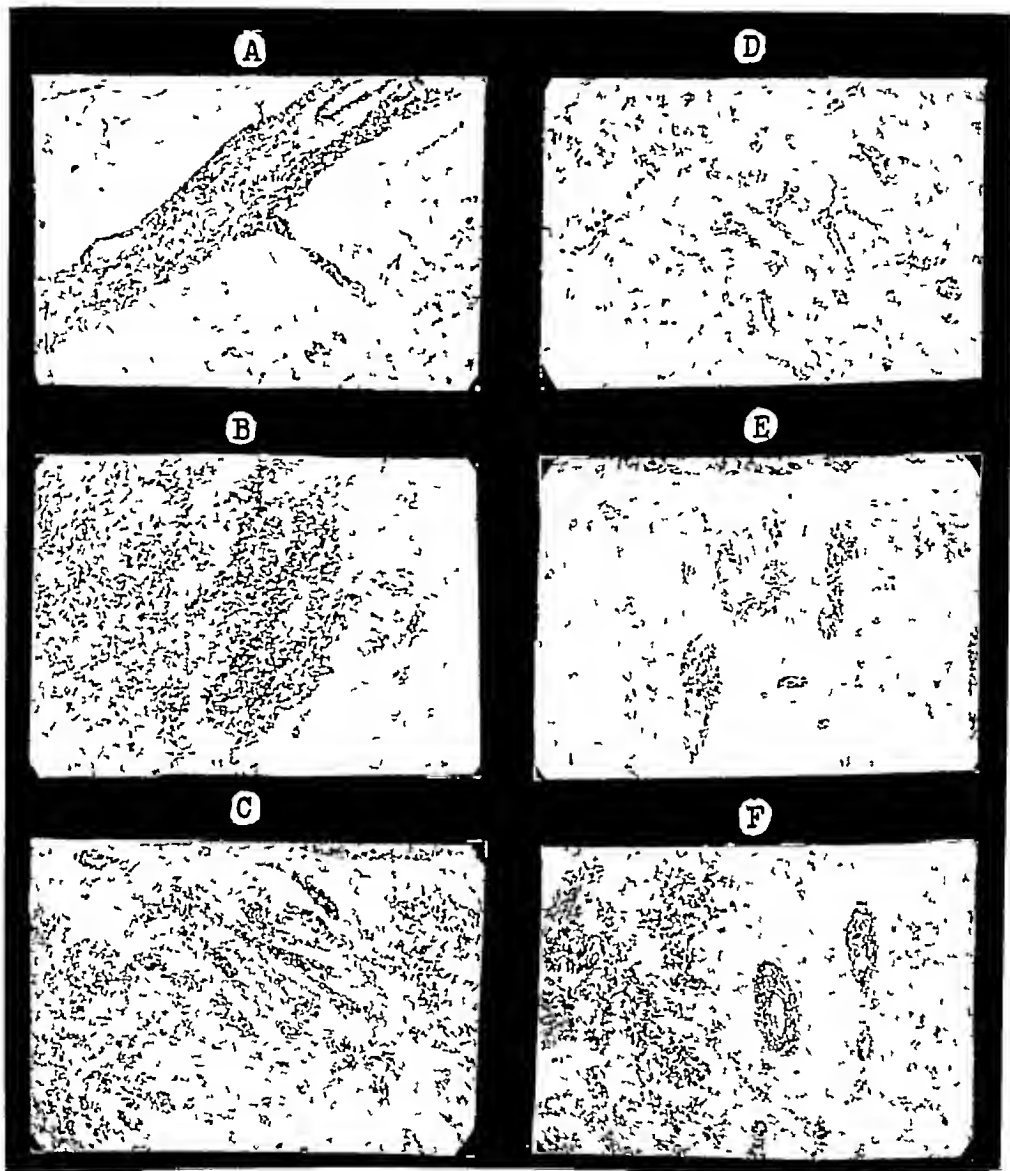


Fig 2 (A) Meningeal growth extending into cortex (B) Meningeal growth of occipital lobe invading cortex (C) Tumor growth in deeper layers of cortex following the vessels (D) Tumor in superficial layers of cortex (E-F) Tumor cells forming "cuff" about vessels (Photomicrographs X-100)

cerebellum covers the oblongata, they are absent around the median aperture of the fourth ventricle. Below this, pigment cells are regularly present. The borderline between pigmented and non-pigmented parts is very sharp, often resembling a V. In the region of the decussation of the pyramids and posterior the cells are more on the lateral aspect of the oblongata. In the spine, the most pronounced pigmentation is around the departure of the anterior and posterior

nerve roots. The pigmentation is especially marked on the cervical and lumbar bulbs of the spine, where the pigment cells have fusiform shape and possess two projections.

In the pons the localization of pigment is not uniform. It is absent in thirty per cent of the cases. Pigmented cells are found about the optic chiasm and is extended over the optic nerves. Marked pigmentation can also be found between the optic tract and the substantia perfora-

Preventive Medicine

"Cut-Out" Infected Wounds

CHARLES H. GOODRICH, M.D., Brooklyn
Presidential Address

This "cut-out" is metaphorical. What we stress today is the prevention of ordinary casual wound-infections and operative infections which now cause much temporary and permanent disability and a certain percentage of deaths. We have no discoveries to announce except that we do not prevent enough infections and that the general public takes it for granted that they know all about diagnosing and treating casual wounds until someone dies or is considerably or permanently disabled. Then, or at least late, they go to the physician who suggests "Why was I not consulted the wound's day and hour?" The reply "I did not know that you could do anything more than I did—I put iodine (or mercurochrome) on it *very* carefully and the wound was so small." That "I did not know" is the horsefly in the ointment. They read an irresponsible paragraph in a tabloid, a newspaper or magazine—and only half of that—and presume they are surgically equipped for any traumatic emergency. Many people know *some* principles of first aid—but we find their greatest interest in stopping bleeding—sometimes managed quite efficiently—or too efficiently.

During our campaign for preventive medicine it is well for us to recall the cardinal principles of wound treatment and pass them on to our people. To them we might also suggest that carpenters and masons build better houses, engineers are better at the steam-plant or on locomotives, and cooks are more efficient in the kitchen than physicians would be, and conversely that physicians trained in anatomy, physiology, chemistry, bacteriology, pathology, diagnosis, and medical and surgical therapeutics will do better work in preventing wound infections than said carpenters, masons, engineers, and cooks.

As we review first principles we can put them in order and be ready to instruct the increasing army of the health conscious,

with the expressed reminder that there is a distinction to be drawn between soiled wounds and infected wounds. Infection is a sequence of the soiling. The interval between reception and treatment is most important and the shorter it is the better. The essentials of wound treatment are

- 1 Cleansing and disinfection
- 2 Control of hemorrhage
- 3 Careful examination
- 4 Accurate restoration
- 5 Effective protection
- 6 Physiological rest

1 *Cleansing* the wound and a *generous area* thereabouts is indicated. Something that will eliminate dirt should be used, for example soap and water, or benzene especially if dirt is oily or greasy, then alcohol or ether also grease solvents and dehydrators of watery dirt. Then *not carefully* but freely, 3½ per cent iodine should be poured or "swum" into wound or applied with a swab. If wounds are extensive, such treatment can be made comparatively painless by the introduction of 2 per cent novocain pack after the method suggested by E. K. Tanner. (This is especially happy in its application to the large lacerated wounds associated with compound fractures.) In recent years some surgeons have limited the application of iodine to the skin and use copious irrigations of saline, boric acid, boro salicylic, or Dakin's Solutions in the subcutaneous defect. We admit that this method, which we used enthusiastically thirty-five years ago, afforded good results. Also we wore rubber boots in the operating room instead of the tennis shoes of today.

2 Absolute control of bleeding within the wound is necessary for prompt primary healing. Blood is the ideal culture medium and in any form aids infection's rampages.

3 Careful scrutiny of depths of cleansed wound is necessary to ascertain if there exists foreign body or injury to deeper tissues (tendons, bones, joints, serous cavities, viscera). In case of such findings, special treatment is necessary.

4 The wound defect is closed by sterile sutures or clips, or rarely, in small skin wounds, by sterile adhesive strips.

nodules in the brain secondary to a primary lesion elsewhere, but one rarely sees secondary involvement or extension of the tumor to the meninges. In this case and others quoted the lesion seems to be limited to the soft membranes with slight or no involvement of the adjacent brain substance.

It is interesting to observe how this tumor encircles the whole brain, being more marked in the sulci and at the base. The extension of this tumor throughout the leptomeninges is possible, if one accepts the following theories:

First, that the tumor arises in the soft membranes because of some glandular disturbance.

Second, that the tumor is metastatic from some other source not recognized.

Third, that the tumor arises from a group of melanophore cells, and extends throughout the subarachnoid space.

Much has been written in recent literature in regard to the role played by the pituitary, especially the pars intermedia in the formation and production of melanin. One would expect therefore a disturbance of the melanin production throughout the body.

The types of cells and its extension throughout the meninges and within the cerebrum is characteristic of neoplastic disease and, since there was no other source found, we must accept the primary formation of this tumor within

the leptomeninges, knowing as we do of the presence of melanin within the soft membranes.

Many pathologists feel that the melanin is a mesodermal pigment—almost analogous to the nevi of the skin. There is still considerable confusion as to whether the meninges are entirely ectodermal in origin or mesodermal or both.

Summary

The case presented is that of a school teacher with all the characteristic symptoms of subarachnoid hemorrhage. Upon postmortem examination a primary melanoblastosis of the leptomeninges was found. The tumor had invaded a pial vessel in the region of the right occiput and produced the subarachnoid hemorrhage. The literature is reviewed and there is considerable discussion about melanosis of the pia mater and its frequency and occurrence in the normal brain.

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References

- 1 Baader, Otto *Ztschr. Zellforsch.*, 22 735, 1934
- 2 Virchow, R. *Virchow's Arch. F. path. Anat.* 16 180, 1859
- 3 Grahl, F. *Anat. u. z. allg. Path.*, 39 66, 1906
- 4 Foot, N. C. *Am. J. Path.* 7 619, 1931
- 5 Boit, Hans. *Frankfurt. Ztschr. f. Path.*, 1 248, 1907
- 6 Farnell, F. J. and Globus, J. H. *Arch. Neurol. & Psychiat.* 25 803, 1931
- 7 Winkelman, Gotten, and Silverstein. *Ibid.*, 35 919, 1936
- 8 Netherton, E. W. *Arch. Dermatology & Syphil.* 603, 1936

Discussion

DR VICTOR C. JACOBSEN, *Troy*—The difference in opinions regarding the origin of melanin-bearing cells is due to the fact that these cells have been found in almost every part of the body, either incidentally or as the primary source of neoplasms. This natural dissemination of chromatophores has been given far too much significance in explaining their origin. Are not nerves and their end-organs just as widely distributed?

Dr Shapiro's patient illustrates the meningeal origin of melanotic tumors and pathways of spread, directly into the brain and via the cerebrospinal fluid. The proximity of the tumor to the brain is a circumstance favorable to the idea of a neurogenic origin of the tumor cells. It is not necessary to demonstrate nerve filaments among the cells to suggest their probable neural source for nerve fibers are

the product of the more mature neuroblasts. The term "chromatophore" signifies only that a cell carries melanin, while a "chromoblast" or "melanoblast" not only carries the pigment but also makes it. Perhaps cells other than those derived from neuroectoderm can make melanin but until histopathologists are more careful in distinguishing between the genesis and the phagocytosis of melanin the present confusion will persist. Phagocytosis is a property of cells from all three germinal layers, but the formation of melanin is probably a characteristic of only one layer—the ectoderm.

The ability of the tumor cells in this case to spread in the subarachnoid space suggests that sooner or later a correct diagnosis will be made by finding the cells in the spinal fluid, just as in the case of medulloblastoma for instance.

PREVENTIVE MEDICINE

Number 241

(The skin test to prevent anaphylactic shock should always precede the injection of Tetanus Antitoxin)

Gunshot flesh wounds when single or discrete merit all of the attentions given to punctured wounds including antitoxin even if bullet has passed in and out of tissues. Wounds of ingress and egress should both be treated. In addition special attention should be given to possible injury to large blood vessels, nerve trunks, and tendons. When bullet wound is of head, neck or trunk the earliest possible diagnosis and treatment by a physician and surgeon in a surgically equipped room—preferably in Hospital—is so generally deemed urgently advisable that little exhortation of public is needed. We have seen such wounds two and three days old upon admission to hospital where gangsters, foreign secret societies, and would-be suicides were involved.

In gunshot wounds of head, neck or trunk the greatest care must be taken by us to determine whether or not there is (1) Injury to a major blood vessel, (2) Injury to an important nerve trunk, (3) Penetration of a body cavity (including spinal canal) (4) Perforation of a viscus (including spinal cord), or (5) Gunshot fractures

Incised wounds the "clean cuts" of the day nineties, if superficial, are easily disinfected, examined, and cared for with assurance by the correct application of our six cardinal principles. If the incisions sever muscles, tendons, or nerves or penetrate a body cavity we are again practicing major surgery—preferably in a hospital operating room.

Contused and (or) lacerated wounds offer special opportunities for service. Their variety in design, concavity, convexity, and extent seems unlimited. From the bursting bruise with opening so small that it does not provide for the outflow of subcutaneous bleeding and so requires incision to control hemorrhage, to the long and broad tearing of tissues due to falling against a sharp projection or being dragged after such a projection has taken firm hold in flesh. Contused and lacerated wounds are often coexistent from the same injury. Most are apt to be "dirty" macroscopically or microscopically or both. All of the six cardinal principles heretofore mentioned must be applied, usually plus anti-

toxins. In addition tissues (especially skin) are frequently so evidently damaged by compression, laceration or shredding as to assure their necrosis or gangrene. This calls for "debridement" or cutting away of tissues so damaged in order to disinfect neighboring or underlying structures and (mainly) to do away with food for the riotous debauches and development of bacteria rubbed into them by the mechanism of injury. Proposed about thirty years ago, this "debridement" was *proven* during the World War. Often accurate restoration by suture is thereafter difficult or impossible. If difficult we must remember that stitch tension can strangle and kill tissue and we may recreate the conditions we seek to avoid. If impossible, sterile drains should be used where sutures cannot be placed. If a large concavity or exposed surface must remain a light fluffy packing (surface-dressing of absorbent gauze should be applied. This dressing should be of sterile vaseline gauze or a wet antiseptic gauze to minimize tearing away new granulating tissue when it is removed. Over all in most of these cases a copious continuous wet antiseptic dressing is usually in order. Complete disinfection of such contused and (or) lacerated wounds is always doubtful however meticulous the care at the original dressing or operation.

One word of caution regarding phenol and its derivatives. Distal portions of injured extremities should never be completely enveloped in dressings saturated with carbolic, Lysol, creolin, or cresol solutions, etc., especially in older patients and certainly not for more than a few hours. Important degrees of death of soft tissues have thereby been caused and may result in any case. To complete the reference to contused and lacerated wounds it is hardly necessary to mention that some of the most serious are associated with compound fractures where the fragments of bone as well as the traumatizing agent are responsible for soft tissue injuries. "Debridement" of bone is often indicated to a limited degree and prophylactic antitoxins are here always in order (tetanus and perhaps gas-gangrene or antistreptococcus). In crushing wounds as well as much soiled contused and lacerated wounds the serum for the gas gangrene is not efficient as a preventive measure but does

5 The surgical field thus cleansed and "disinfected" should immediately be isolated from the rest of the world by a dry sterile gauze dressing of generous thickness, sterile cotton pad, and a firm but not tight bandage. This dressing may be left in place from one to ten days according to local and general symptoms and objective findings. Overfrequent dressings are meddlesome and sometimes harmful. When much tissue damage is evident and reactive tumefaction anticipated, a cold wet antiseptic dressing may replace the dry one, such as Thiersch's borosalicylic, aluminum acetate, mild phenol or Lysol solutions, or acriflavine, Metaplien or some other modern well-advertised and approved affair.

6 Physiological rest for days or weeks is the sixth great principle, and whatever is needed to bring this about may be used. Ordinary bandages may be supportive enough in minor instances, but light splints, starch or plaster bandages, or adhesive plaster are resources of value.

There they stand—six simple principles, all in the physicians' primer—all ready for beneficent use on call.

- 1 Cleansing and disinfection
- 2 Control of bleeding
- 3 Intelligent examination of cleansed bloodless wound
- 4 Accurate aseptic closure (in layers if more than one are severed)
- 5 Adequate protection for seven to fifteen days or more
- 6 Physiological rest for as long as necessary to promote healing

How many laymen can perform these duties with assurance of success? Is not the examination and diagnosis of unlimited importance? "But" they say "some wounds are so small." "Right" say we "So are the leaks in the pipes that carry carbon monoxide to the motoring victim's lungs. So are the bites of the 'yellow fever' mosquito and the anopheles family. The size of the 'infection-atrium' or gateway does not proportionately enlarge or minimize the danger of infection! 'Infection-atrium' was indelibly impressed upon us students by Surgeon Robert F. Weir at Columbia's College of Physicians & Surgeons. Over and over again he repeated it on scores of occasions. 'Infection-atrium,' until the time-unguarded gate providing a break in the protective wall of an ancient metropolis. Thus the small size of the wound should not be regarded as assuring freedom from infection. We might as reasonably disregard the

potentialities of the spermatozoa because of its size. Some spermatozoa die ineffective. Some small wounds heal without care. Count all accomplishments of both and our respect for small things grows.

While we speak of small wounds we will start to modify or embellish our six cardinal principles in accordance with the types of wounds.

Punctured wounds, and especially those produced by the penetration of skin or mucous membrane by pins, needles, tacks, thorns, wires, nails, slivers of wood or metal, rake-teeth, and similar objects deserve special attentions. Such more or less pointed objects often carry through the skin and into connective tissue spaces or muscles minute fragments of dirt, clothing, grease, or other infected material. When the puncturing missile is withdrawn through stretched skin the elastic fibers in the skin contract, the wound closes or nearly and the bulk of infecting material is left inside provided luxuriously with culture media and animal heat, so that a splendid spree is promised for all. Here the pyogenic staphylococci and streptococci most commonly revel and less frequently but commonly disport the anerobic bacilli of tetanus and gas-gangrene. These bacilli which flourish only in the absence of oxygen call for a special consideration of punctured wounds. Some surgeons urge invariable laying open the wound by incision or excising it, investigating its depth for foreign material, always disinfecting as in other wounds. Peroxide of hydrogen should be injected or swabbed into such wounds because of the probably mortal effect of nascent oxygen upon Bacilli of tetanus and gas gangrene. In a series of 123 cases of Tetanus reviewed by us in 1898 three were caused by rose-thorns, one by a sewing needle, eight by wood splinters, one by a pick, one by a pitchfork, twenty by nails.

In addition to some special form of treatment for punctured wounds prophylactic tetanus antitoxin should be used in all punctured wounds and all other dirty wounds of depth. This is pre-eminently important where geographic area (as most sea coasts and all of our Long Island) is known to be crowded with Tetanus Bacilli, or when wound is received in some place where dead or effete animal matter is widely distributed as in battlefields, barnyards, horse stalls, garbage dumps etc.

PREVENTIVE MEDICINE

December 15, 1937]

balanced in kind especially for bed-patients. We wonder if bed-patients should ever have the prevailing "full diet" except when they are profoundly septic. Then of course, they must be carefully and studiously overfed.

How is the heart-action? Is stimulation needed to bring it up or down to normal? Are you in doubt? How about an electrocardiogram? An effective "engine" is a real ally in the fight for wound repair. What about blood pressure? Watchful observation and regulation will assist in balancing circulatory forces. Well-balanced circulation may at times determine the success of wound repair.

Is there acute anemia from hemorrhage or a previous anemia increased by trauma? Ideal transfusion is the surest reinforcement.

Is there gastrointestinal fermentation or putrefaction? Are alkalis indicated? Or dilute acids?

How does colon behave? Be sure of adequate evacuation daily without depletion. Have we exposed this patient to whatever available laboratory measures are needed whether biochemical, bacteriological, or roentgenological?

All these matters and more have to do with the prevention of wound infection, or efficient early treatment which is realistic prevention.

Much of the routine thought suggested may be unnecessary in the care of so-called "trivial wounds." Yet how are we to determine "trivial wounds" until the final result is known? A well-known otolaryngologist pricked his thumb through a sterile rubber glove with an unused sterile (?) tonsil-snare wire *before* using it. A vicious streptococcus infection followed—pus was obtained from an incision in tactile cushion of thumb in thirty-six hours and during the following weeks sixteen incisions with drainage were made in hand and forearm until the heroic patient during a dressing remarked "with all those tubes it looks like a battle ship!" "Trivial wounds" indeed! And yet there are many wounds which apparently uninfected, heal "perprimam" sans attention. Assume that this happens in thirty or forty per cent of all wounds—a liberal assumption—is that any reason for failing to abolish infection in as nearly 100 per cent of wounds as is humanly pos-

sible, perhaps ninety to ninety-five per cent? Ethically, has any person, whose relations to home and community are normal or better, any right to take a thirty per cent chance in the treatment of wounds when he could avail himself of ninety per cent?

Uncommon types of wound infection such as anthrax, glanders, tularemia, actinomycosis, hydrophobia and rat-bite fever must be deemed important because of their comparative rarity and the special knowledge concerning etiology and prevention to be kept in mind ready for use.

A prize-fighter displaced the teeth of his syphilitic opponent thereby wounding his hand. The victor became a victim! Syphilitic wound infection is uncommon but very tragic! Perhaps most common among physicians! The current war on syphilis and the free use of iodine in wounds especially of the hands are preventive measures par-excellence. In the above instance if a careful history had been taken of the other fighter this might have helped—if he had told the truth! How often can this be done? Stamp out syphilis and fill wounds with iodine! This will answer in due time.

Tuberculosis enters neglected small gateways sometimes especially during childhood and youth. Parental attention to the "scratches" and "bruises," often disregarded, may spell prevention in capitals. Cleansing, a penetrating antiseptic (preferably iodine) and an occlusive dressing are the least we can do in justice.

A current commentator on our national foreign policy has remarked "We are afraid to defend Liberty lest liberty be lost. And out of the fear of war we prepare ourselves to accept the worst things that war can bring" (Dorothy Thompson, *N Y Herald-Tribune*, Sept. 9).

Reapplied to our scientific problem this reasoning might read "Are we afraid to treat wounds because then they might not heal kindly?" And while we fear wound infection should we prepare ourselves to accept the worst things that wounds can bring? If not, meticulous prevention of wound infections is as rational as it is effective—a wise policy throughout the world.

All praise to the many surgeons who through the years have systematized, simplified, and rationalized the preventive treatment of wound infection!

lessen severity of disease. Also if discovered early the serum is often of value therapeutically. Where gas-gangrene is feared frequent smears and cultures of crushing wounds beginning eight hours after injury will show presence of bacillus *Welchii* before clinical signs are apparent (Callender). At times the discovery of bacillus *Welchii* is difficult. A recent method provides for the making of stab cultures from wound which, if they "take," develop gas bubbles in twenty to forty minutes.

In considering wounds made at a planned clean surgical operation, we report that a recent review of literature from numerous United States clinics records an average of ten per cent infected wounds in so-called "clean" operations. In this day of rigorous preoperative preparation of the surgical field and highly developed technic of closure and postoperative care this high incidence in various clinics is surprising. It should readily be reduced one-half or one-third of this figure. Here the main additions to our six cardinal principles (and always important when these are being applied) are the thorough five to ten minutes scrubbing of hands and forearms, and the use of sterile rubber gloves on the part of the surgeon and all assistants. Sterile instruments are always surgical necessities. Gentle handling of tissues even if more time is used, for we thus minimize opportunities for infection. The dangers from prolonged anesthesia are minor compared with those of rough handling. "Relentless stretching of wounds by retractors," "inadequate protection of wound edges," careless hemostasis, "unsuitable ligatures of sutures" in material or size should be avoided and the scalpel which severs skin should never be used in deeper layers.

Crowds in operating rooms especially visitors not properly equipped may cause infection. Meleney and Stevens once found that one-third of operating room personnel were hemolytic streptococcus carriers. Cultures of operating room air and equipment should be taken at regular intervals, and unsuspected plumbing connections between tap water and sterile water pipes have been demonstrated (Methodist Episcopal Hospital, Brooklyn).

The operative field should be carefully shaved and then prepared as was the wound and its field under "cardinal principles."

Many substitutes for iodine are suggested as skin disinfectants. We prefer iodine (3½ per cent) because along with its use we have had less than average minimal wound infections. We also like the brand of catgut and sutures we use for the same reason (and others) although some surgeons do not like the "smell" thereof. We like our chauffeur for his results regardless of the fact that some folks wonder if he is "white, chinese or a colored gem'men." Why should we abandon iodine because of "smell" or color any more than we release our catgut for odor or our chauffeur because of color? Others may find results from varying skin disinfectants as good as iodine and be as content as are we. God bless 'em and good luck! There are occasions when the skin in the particular individual or region seems extraordinarily delicate or in certain plastics where we desire as colorless a field as is possible. Then we clear the color, not the bactericidal effects, with ninety-five per cent alcohol.

When our wound has been protectively dressed, forces innate in the person under our care proceed to the duties of repair. The completeness of this accomplishment depends upon physiology, which is "the science of the working of the healthy human body." How many subjects are "healthy" after receiving wounds in accidents, in battle, or in operating-rooms? It is our business to find the delinquent spots in the complex mechanism, and fortify them as best we may in order to *promote tissue repair and resistance to infection*. For our local success in banishing infection cannot safely be assumed to be absolute or invariable. Rather it is occasional, and otherwise approximate in degree. Therefore security in repair and more complete resistance to infection demands our attention to all vital functions and especially to prevent dehydration and malnutrition which may have existed before, or hastily supervened the wound event.

Fluids may be administered by mouth, by proctoclysis, hypodermoclysis, or intravenously. Sterile tap-water, saline, sodium bicarbonate or glucose solutions may be used according to indications. Major wounds of almost all sorts need fluid fortification.

Nutrition should be more than normally adequate in calories and vitamin value, and yet food should be simple and well-

completely ignorant in child up-bringing. He was their first child and they had blundered ever since the day of his birth. They did the usual and the expected they "spoiled" him—a correct and descriptive term.

Maybe I might have had no trouble with Georgie if he had been a mental patient only. But there were other complaints also and he looked pale and underweight and his posture was bad.

So, after a preliminary talk which yielded nothing, as the boy would not answer, the parents asked him to undress himself and as he refused, they proceeded to undress him. It was difficult. He kicked and fought them all he could. When it came to dress again he opposed them even more vehemently—and with more success.

He was told that now he can go home. But he was enraged and revengeful and would make no concessions.

Therefore, I asked the parents to leave the office for about an hour. This was something unprecedented for them and they did it only out of respect for me. They went out into the street and I called in another patient who happened to be a man of seventy-five with a white beard, whom I asked whether he would mind Georgie's presence. He said good-humoredly, "Not at all" and I began to examine the old man.

As we paid no attention to the boy, he stopped crying, dressed himself completely and very well, and wanted his parents. I told him they had gone out for a walk. Meanwhile, as I was through with the other patient, I began to talk to Georgie. This time, *in the parent's absence*, we soon became friends and, when they returned, they were greatly surprised to hear him laugh and play ball with me in the most enthusiastic manner, which did not keep him from starting to cry as soon as he saw them.

These parents had thought that the child was *mentally abnormal* and so had the teacher in school, where Georgie was a

nuisance. Indeed, *that could have become a fact*. He would not play with anyone during recess. He often disturbed the class by talking loud to himself, with utter disregard for anyone else.

He was extraordinarily "stubborn." There is nothing intrinsically wrong with stubbornness. It may be a quality. It depends to what use it is put.

But Georgie, a child with normal intelligence and even with an IQ somewhat above the normal, with no organic defect, although suffering from general physical debility which, by the way, was remediable, really was *on the verge of some mental waywardness and unsteadiness*.

The second time I saw Georgie he behaved in an entirely different way. And, without going into details, I wish to assure my readers that he gradually changed.

However, the chief treatment was not administered to him, but to his parents. They were shown how grave their errors were and told how to modify their conduct toward their little boy, which they did.

There was no need of much teaching. As soon as they were convinced about the right road to follow, they made it their business to reform their relations with the child completely and fundamentally.

Any medical thinker should be able to perform the same "miracle."

However, in spite of my experience with children, there are cases, although happily rare, where I fail. My best friends among them are those who had come before as healthy visitors accompanying their sick parents, which happens quite often. Then a lasting friendship is established and the ground for confidence is laid for the time of need. One of them, three years old, when told not to run into the street where he can be killed by a car said "That's nothin', the doctor'll fix me." Meaning the author. Another boy of five also asked his mother seriously to send for me in an emergency when the plumbing was out of order.

611 W 158 St

LAY VIEW OF STATE MEDICINE

A lay reader of a New York newspaper is stirred by reports of coming health insurance bills in Washington to "write to the editor," and say

"I believe in medical and dental care for the masses, but I do not believe that those who have observed the health rules and have reached the higher income brackets

should be taxed to pay the hospital and doctor bills of the alcoholic, the syphilitic and those who give no thought to their health until they are ready for hospitalization.

"Since efficiency is so clearly related to health, the more efficient will have to pay the higher tax while deriving none of the benefits."

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M.D., DR.PH., New York City

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Stubbornness

I usually get along with children who come as patients

Even if they are ill-prepared and frightened, either from previous bad handling or because they have been threatened and scared by their foolish parents, they mostly go home smiling and happy. No matter how fiercely uncooperative they are at the beginning, they soon become reconciled. There have been many cases where our relations were so cordial that the children did not care to leave the office and they sent the parents home.

What are my methods? I do not know myself. I have none. I am just chummy with the children.

I talk to them. I play with them. I show them something interesting.

I give them toys—"for keeps." But I never give them anything when they are "bad." Of course, in home-upbringing bribing, even preventive bribing, is a mistake and no one should resort to it. But in the doctor's office, where there can be no question of observing the real principles of proper upbringing, and where there is no time to lose, we must be permitted to deviate from our own rules. By the way, I avoid giving them mouth-toys like whistles which may spread infection of some sort by promiscuous use. And I never hand them candy or other foodstuff in order not to interfere with the parents' feeding plans.

I familiarize them with the stethoscope by letting them touch it or by showing them how it does not hurt the mother when it is applied to her chest. Of course, the tongue depressor is the first gift they get. And they often "need" one or two more.

They are free to roam around and ask questions. They frequently want to know where I sleep and whether and when I eat. All that goes for all ages, from a few months to six or seven years. Later they may be treated as adults.

I never lie to them. I always keep my promise. I tell the older ones in advance when I'll have to hurt them and appeal to their bigness and heroism.

I do not tolerate the parents' camouflage—"this is not a doctor, but an uncle." For some children their uncles may be worse than any doctor and I must reject the comparison. Why not admit that we are doc-

tors, but claim that we are good and prove it to them? Besides, the child sees the bluff. Unless he is an idiot we cannot fool him.

I rarely have any difficulty in examining a child. But if I do meet with opposition I am quiet and determined and do my work—regardless. I never become excited or lose my temper or my smile or the gentlest sweetest voice of which I am capable, adopted from the beginning. The child becomes finally convinced that my intentions are good and sees that I do not hurt him. If the only way to break his resistance is by hurting the child, I prefer to give up or postpone the examination.

Not only during my examination do I avoid violent motions, but all through the session in which the child is present I am careful not to be brusque. Would I try to catch a cat by running fast toward it? No, I would only scare it away. This behavior is particularly required when dealing with the smaller children those under four.

The proper tact in the relations between doctor and child-patient is not only important for facilitating a physical examination. It often goes a long way both to improve the child's mind and to educate the parents—and so it may help to prevent or cure troublesome mental states. It belongs to good psychology and correct preventive psychiatry. It will even repay from a practical point of view. The child will prefer the physician who treats him nicely and will refuse to visit another one.

If it is necessary to handle children rightly in the cases of physical ailments, it is even more important to do so when the complaint is mental when we deal with a problem child, a behavior difficulty, a maladjustment or an unusual family situation. Our first approach may not only help us win the child over for cooperation and form the basis for a cure or may even be the beginning of the cure.

Still, I cannot say that my experience has helped me in my first meeting, or rather clash, with Georgie, seven—at least not until that encounter was almost over. He was brought to me by his father and mother, pleasant and intelligent people, but

Three years ago, Dr Conant, the President of Harvard University, called attention to the dangers to our government from "social leadership" which would wreck our democratic society, because of ignorance, or because it blandly and innocently would "send to the scrap heap institutions, traditions and even principles which, if they are not absolutely fundamental, are integral parts of the whole fabric of our form of civilization"—to accomplish the establishment of their pet schemes.

The law and tradition among us heretofore has been, that Congress shall provide money and determine the scope of its expenditure, and *no one else*. This is one of the fundamentals of our government. Anesthetized, with fears allayed, our citizenry seems strangely apathetic to what is happening to our government.

"Citius venit periculum, cum contemnuntur"

Proof of the Pudding

The best argument for or against any system is how it works. No amount of theoretical "shoulds" can gainsay an actual "doesn't." Judged by the strict rule of results, the principle of free choice and free competition among physicians has conclusively demonstrated its superiority to the project-doctor system in the United States Works Progress Administration for New York City.

Prior to March 1937, the WPA in Greater New York employed its own physicians for workmen injured in its service. At that time, at the urging of organized medicine, it switched to the panel system in force for workmen's compensation in this state. Results were immediate and striking.

At the end of three months, John F Overend, the State Compensation Officer for the WPA, found that the operating costs of his department had dropped almost eighteen thousand dollars a month. The net saving to the Federal Government, allowing for the heavier burden upon the Federal hospitals as a result of

the panel system, was over nine thousand dollars monthly.

"A matter that is probably of more importance than the economics involved is the fact that injured employees are receiving better medical treatment than heretofore. The average panel physician is more skillful and experienced, he manifests a greater interest and care in his patients, the injured employee has more confidence in his doctor and hence follows instructions, thereby promoting his recovery. In all respects the panel system has proved itself more satisfactory than the project-doctor system."

The passage of time has confirmed Mr Overend's conclusions. After six months, Mr Brehon Somervell of the Works Progress Administration in New York City also reported that better treatment was being rendered under the panel system at lower cost. The workers are highly satisfied with the new arrangement. Medical abuses are at a minimum.

Part of the credit for these splendid results must undoubtedly go to the medical and administrative heads of the WPA for their intelligent cooperation with organized medicine. Both of the executives mentioned, as well as Dr Philip MacGuire, the Medical Director, have a genuine understanding of the factors involved in good medical service and an unusual ability to work in harness with unofficial bodies.

Above all, however, the results testify to the superiority of independent, competitive medical practice over a bureaucratic monopoly.

An Example for Us

Canada points the way to some badly needed reforms in the regulation of quasi-medical broadcasts. Under the new rules promulgated by the Canadian Broadcasting Corporation, the advertisement of foods, cosmetics, and patent medicines can be stripped of fraud and exaggeration if enforcement agencies show proper vigilance.

Among the new regulations, which are

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EDITORIALS

Misuse of Public Money

In the November 13 issue of *The New York Medical Week* editorial attention was called to an Associated Press comment that the Home Loan Bank Board had contributed \$20,000 to support a co-operative medical clinic in Washington, to provide medical care for its employees and their families with no salary limit on the membership, and financed partly by government funds. *The New York Medical Week* challenged this misuse of public money.

In the New York *Herald-Tribune* of December 1, we find a news item from Washington quoting Senator Pat McCarran of Nevada. The article states that he called on officials of the Home Owners' Loan Corporation "to explain on what authority they have contributed \$40,000 of government funds to an experiment in collective medicine." We reproduce in full this news item from the *Herald-Tribune* Bureau in Washington in our "Current Comment" column. Here it suffices to state that Senator McCarran is reported to have said that he understood that the employees of several other departments were contemplating setting up similar systems to that of the HOLC. Senator McCarran warned, "Employees of these departments should realize that they place themselves in grave danger

when they exceed their authority and when they dispense government funds without legal authorization."

It is a sad commentary on these times, when the burden of taxation is almost unbearable on those who still have the will and the capacity to earn and save, that totally unauthorized expenditures of public moneys should go on without general public protest and criminal prosecution. There was a time not so long ago when no agencies of the government deliberately misused public money and diverted it from the purposes for which Congress appropriated it. In the sane state of the public mind then, such a procedure would have been unthinkable. In the "jog-trotting" of the present day, however, the old order seems passing and public morality and probity seems abating. Medicine never makes complaint against government money—local, state or Federal—expended for medical purposes where organized medicine sees real need, but where "socializers"—defeated in their efforts to receive through regular channels money appropriations for their schemes, are balked, then deliberately take money specifically allocated for other purposes and apply it to the development of pet schemes, then there is presented a situation that needs more than protest.

the exercise tolerance has been increased. A number who had been totally incapacitated by the disease, have resumed their former occupations or have become able to find gainful employment in other less strenuous fields.

Their patients have been seen by other physicians and these observations have been corroborated. The subjects themselves are well-satisfied with the results obtained. These are the outstanding clinical factors in the latest report of this work. Scientifically, several questions remain to be answered concerning the actual reasons for the beneficial effect achieved by the surgery. A clinical improvement is noted in most instances on the eighth or tenth postoperative day, and this cannot be ascribed to the creation of a new blood supply from the grafts implanted. The opening of intercoronary communications or the severance of nerve fibers during the removal of the epicardium may be the factors responsible for the relief of the patient's symptoms.

In any event, a contribution of such moment must be given serious consideration even at this early stage in its development. Based as it is upon sound experimental studies,³ its clinical application should be thoroughly investigated. The effectiveness of the operation can be determined only by further study. The time to operate, the selection of the patient as determined by age and stage of the coronary disease are questions which await an answer in the future.

Enuresis Treated with Ephedrine

The treatment of enuresis has always presented a problem to the physician since no one remedy has been found which will successfully ameliorate the condition in all sufferers. It occurs mostly in children and is not associated with any evident pathology of the urinary system.

It persists usually throughout school life and into the late teens and then spontaneously ceases in the early twenties.

In a study of thirty-eight consecutive unselected cases of enuresis, Brookfield¹ found that the type of enuresis alluded to above responds favorably to the administration of ephedrine internally. The method of treatment that he advocates is to give a one-half grain tablet of ephedrine alkaloid at bedtime and to increase this dose every third or fourth night. In some instances as much as five grains is taken by the patient. Where a favorable response to this form of therapy occurs, the enuresis at first becomes less frequent and then disappears entirely as the dose is increased.

He has found that many of his patients have tolerated amounts of ephedrine greatly in excess of those generally considered to be maximal. From this he feels that there exists a disturbance of the normal balance between the sympathetic and parasympathetic systems with a predominance of parasympathetic excitation. To overcome this hypertonicity, a comparatively large amount of ephedrine can be administered and utilized by the body before side reactions become evident.

Brookfield states that ephedrine therapy for enuresis should be employed in the majority of the younger patients. His report of cure in ten cases and marked improvement in fourteen others merits consideration by the practicing physician when confronted with a case of enuresis which does not respond to the forms of medication usually employed. Judicious use of the drug, and careful observation for the appearance of constitutional reactions are required. Since the enuresis is at most an annoyance and a source of unpleasantness to the patient which in time will cease of itself even though not treated, the use of ephedrine should not at present be a routine measure but should be tried only when other means have failed.

³ Beck, C. S. and Tichy, V. L. *Am Heart J*, 10: 849, 1935.

¹ Brookfield, R. W. *Lancet*, 2: 623, 1937.

remarkable for their simplicity and explicitness, several provisions stand out. No therapeutic recommendations may be made without the approval of the Department of National Health. Proprietary formulas must be submitted with the scripts advertising them. False or misleading statements are taboo.

Unfortunately, Canadians, like their American neighbors, are still exposed to the danger of misrepresentations emanating from this side of the border. So far broadcasting companies in the United States have shown little determination to put an end to exaggerated, misleading claims for foods, drugs, and cosmetics.

Broadcasts advertising laxatives violate sound physiological principles as well as good taste. The exaggerated claims made for cold "cures" and headache remedies encourage self-medication in many conditions requiring early medical care. Diathermy machines for lay use are advertised in misleading terms which minimize their danger and grossly overstate potential benefits.

In the face of these and many other evils, it is foolish to pretend that radio advertising is less venal or less in need of regulation in the United States than in Canada. There is plenty of foolish censorship to conform to provincial morality and sectional prejudices, but a consistent, intelligent policy to guarantee honesty in advertising is sadly lacking.

While some stations voluntarily maintain high standards and eschew any medical advertisements smelling of quackery, others sell time to any advertiser who can pay their rates without regard for the public good. Such stations can be curbed only by law, for as long as there is a safe profit in the dissemination of misstatements, they will lend their facilities to it.

The President's Address at the Fourth District Branch Meeting

Dr Charles Goodrich continues his campaign for preventive medicine and at

the meeting of the Fourth District Branch at Glens Falls he took up the question of prevention in reference to casual wound infections which may cause temporary or permanent disability, and from which a certain percentage of deaths occur.

To physicians he brings nothing new, but it would be well if the general public could have this address available for repeated rereadings. Preventive medicine would be much enhanced by public appreciation of what Dr Goodrich here presents. We carry the address in full in another column and we commend it to the attention of our readers (page 2101).

Surgery of Coronary Sclerosis

A considerable amount of favorable comment was aroused when in 1935 Beck¹ first proposed an operative technique whereby a new blood supply was furnished to the cardiac musculature. Since then, twenty-five patients have been operated upon and a sufficient time has elapsed to enable an early evaluation of the clinical results.

One of the significant points is the lowering of the mortality due to the surgery per se from fifty per cent in the earlier cases to 15.4 per cent in the last thirteen cases operated upon by Beck and his associates. In their most recent publication² they analyze the results obtained in thirteen patients who have been under observation for five months or longer postoperatively. In three, the results were striking—pain has completely disappeared, tolerance for exercise has been increased, and drug therapy has been discontinued. In nine, the results are "such as one might expect to obtain, considering the nature of the disease that is being treated." Pain, while present, is diminished considerably, medication is resorted to less frequently, and

¹ Beck C S *Ann Surg* 102:801, 1935
² Feil F and Beck C S *JAMA* 109:1781, 1937

"MANY ABORTIONS ARE UNDERTAKEN on the impulse of the moment, when an unexpected pregnancy clouds the immediate future. A friendly word of encouragement and warning, a discussion of the many risks, will often serve as a check until, after a few weeks of mental readjustment, the pregnancy is gladly accepted. Such a word must often come from the physician, but it is as valid from any other friend"—Dr Howard C Taylor, Jr asks 'What About Abortions?' in the November issue of *California and Western Medicine* from which we have quoted the above statement.

"WHEN WARS ARE DECLARED AND WAGED, the man with blood lust, the killer, stalks the page. There is no masquerade.

"During floods much of the hidden life buried in the mud of river bottoms is sloshed upon shore and bank, and as the waters recede queer forms of life, with dull eyes unused to daylight lie dying, dead, and decaying. There is no masquerade.

"And so with depressions—as they recede, the little man, the boy scouts in shoes too big who have been catapulted by chaotic events into prominence and prominent positions shout and spout and spend money earned by others who would rearrange the whole social order—they are on a grand unlimited jamboree, they await not the new order, they drag it in.

"With that borderline group of pink revolutionaries, the sweet male directors of funds and foundations, graduates of third rate cow colleges, east and west, and tenth rate minds pushed out of first rate universities—with this ilk we have a quarrel and we call the turn.

"Certain foundation and fund directors, and hangers-on, finding themselves in fair

position sustained and bolstered by sweet old lady-like types of both sexes—in that situation, they have position long denied them, they have opportunity to meddle.

"We don't believe in looking for trouble, but we would be less brave, if we kept silent, than a Foundation or a Fund Director who, making his living from largesse dispensed from money made by business, in slippery manner repays the hand that feeds him by seeking to socialize business"—Some sharp words by Dave Sugar in the *Detroit Medical News* which perhaps might be applied to an analagous situation in our own field.

A GREAT MANY FOLKS ARE FORGETTING that there are vitamins in strawberries and cream as well as in spinach and cod-liver oil. They are forgetting that it is pleasant to do most of the things that will make us strong and well. How long has it been since we were told that the banana was really not fit to eat? Why, there are millions of people living in the tropics who practically subsist upon the banana. Indeed it is the only fruit that will even fairly well serve as an exclusive article of diet. It is now known that bananas, provided they are neither green nor rotten, can be fed to even young babies. In fact, in a certain disease of children—celiac disease—the best medicine or diet that has been devised is an exclusive banana diet. The best health rule I know is the one that advises us to forget at least nine-tenths of the other health rules and just live naturally"—A happy reminder by Thurman B. Rice, M.D., Professor of Bacteriology and Public Health, Indiana University School of Medicine, to be found in full in *California and Western Medicine* of recent date.

MARY PUTNAM JACOBİ FELLOWSHIP

The Women's Medical Association of the City of New York offers the Mary Putnam Jacobı Fellowship, of \$1000 for one year, available for postgraduate work in the medical sciences.

The fellowship is open to any woman graduate of an approved Medical School. Each candidate must be endorsed by the head of the department in which her previous work has been done. The recipient of the fellowship must give full time to the study of her problem and this study should be made preferably abroad.

The recipient of the fellowship, if not resident in the United States, should make the study preferably in the United States.

Applications for 1938-39 should be filed with the chairman of the committee on or before April 1, 1938, and must be accompanied by statements as to health, educational qualifications, and proposed problem for investigation.

ANNIE S. DANIEL, M.D., Chairman of the Mary Putnam Jacobı Fellowship Committee, New York Infirmary, 321 E 15 St., New York City.

CURRENT COMMENT

FROM THE HERALD TRIBUNE BUREAU we learn that in Washington, under date of November 30 "Senator Pat McCarran, Democrat, of Nevada, today called on officials of the Home Owner's Loan Corporation 'to explain on what authority they have contributed \$40,000 of government funds to an experiment in collective medicine'."

"The reference was to the contribution by the HOLC and the Federal Home Loan Bank Board of \$20,000 for the operation of Group Health Association, Inc., giving medical care to employees of the HOLC and the FHLBB and their affiliated agencies. The GHA has been promised a further contribution of \$20,000 next year. A clinic has been in operation for several weeks.

"Senator McCarran in his statement said he had called on the HOLC officials for an explanation because 'there seems to be considerable doubt as to the legality of it.' The HOLC, he pointed out, was set up to lend money to private citizens on their homes or to guarantee loans already made.

"It was never contemplated by Congress,' the Nevada Senator wrote, 'that any money appropriated for the HOLC would be donated to any one or to any organization for any purpose. It certainly was not contemplated that any money would be donated for an experiment in collective state-subsidized medicine.

"The Comptroller General, whose duty it is to pass on all expenditures of government funds, should investigate this particular expenditure at once."

"Senator McCarran said that he understood the employees of several other departments were contemplating setting up a similar system to that of the HOLC.

"Employees of these departments should realize that they place themselves in grave danger when they exceed their authority and when they dispense government funds without legal authorization,' the letter continued. If Congress considers it wise to make experiments in socialized medicine, or in socialized anything else, Congress is quite competent to order such experiments. In the present case the officials of the HOLC were hired and are being paid by the government to run the affairs of that agency. They were not hired because of their social views or theories in collectivism."—*The New York Herald Tribune*, December 1

"AS NEVER BEFORE PHYSICIANS SHOULD be alert to economic changes and be informed of medical legislation and of the health programs and activities of lay organizations.

"Physicians busy with professional duties may readily get out of touch with fast moving changes in public opinion. The sympathetic public approved of plans to have taxes pay for the care of the tuberculous in clinics and institutions. Something is being done with public approval about crippled children. The public now demands something be done about syphilis. The public looks to the physician for leadership in these campaigns and if not found there will go elsewhere."—A warning from the *Pittsburgh Medical Bulletin* of recent date.

"IN AN ADDRESS TO A MEETING at Leeds,

Lord Horder said that inevitably the physician's work in the future will be more and more educational and less and less curative. More and more he will deal with physiology and psychology and less and less with pathology. He will spend his time keeping the fit fit rather than in trying to make the unfit fit. And we must make it worth his while to do this work. This reorientation of his education and his work is overdue, and it will remain overdue until reorientation takes place in the attitude of the health authorities toward him and his sphere of usefulness. And we must not think that his education is finished for all time when he becomes qualified. It is a duty we owe to every doctor to get him back now and again to the stimulating and informing atmosphere of the wards and the laboratories and, no less helpful, to the atmosphere created by his colleagues and teachers."—From a report in the *J.A.M.A.* of November 27 by its regular London correspondent.

"THE PRACTICE OF MEDICINE is the physician's business. Every successful man puts a certain amount of money back into his business and he keeps up with new advances or he is passed by his competitor. Every physician does have the time and money to spend in the improvement of himself in the practice of medicine. There is only one good excuse and that is inertia.

"—*The Sedgwick County (Kan.) Medical Bulletin* reminds the doctor of the necessity of "Holding One's Own."

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Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Audi Aleteram Partem

1251 Pacific St
Brooklyn

To the Editor

In the NEW YORK STATE JOURNAL OF MEDICINE, of November 1, 1937, and under the caption "Don't Despair of the Human Race," there appears a criticism of the views of Doctor Alexis Carrel, as expressed by him in a recent address. The writer ventures to disagree with the editorial, as follows

Far from looking upon man, only from a mountain peak, Doctor Carrel has also studied man in his most intimate parts and therefore from the closest point of view. He has observed and studied man in all of his states, in all of his actions. He has mixed with all grades of men as a fellow man, and has studied man, with the insight and guarded judgment, of a trained observer. He has studied man as an individual, as race, species, and as a universal. His study has been the very opposite of a lonely mountain view. The writer of "Don't Despair of the Human Race," sets up a straw man.

The editor says "we are trying to lift the whole people to higher levels." If one may be permitted to judge of intent, by results, this statement is incorrect. Those who are leading the people, are reducing the mass to lower levels, to the level of serfs, the levels of unthinking slaves, to the levels of centuries and centuries ago. That they have been able to do this to the degree that they have, is evidence of the correctness of Carrel's statements.

The editor further says "we are putting democracy to the test." This is absolutely incorrect. The fact is we have cast off democracy, and have returned to aristocracy—not an aristocracy by inheritance, but by political appointment from those who have unlawfully seized power, which they would not have been able to have done, had not man already degenerated.

The editor adduces the great number of pupils attending schools, as proof of advancement. Carrel has emphasized this same large attendance at schools, but Carrel points out the equally true but unfortunately concomitant fact, that moral

standards—"spirituality"—are no longer cultivated nor esteemed by the great mass. The editor makes the error of considering school buildings, and passing a great amount of variable material—pupils—through the school mill, as constituting or insuring culture. Carrel has emphasized the superficial mind of the mass today.

Carrel has emphasized the present production of increasing numbers of, otherwise healthy, morons, perverts, and criminals.

The editor ascribes to Dr. Carrel, a "philosophy of despair." On the contrary, Carrel incites to effort, to study, to the attainment of knowledge, to hope.

The editor says "The civilization of da Vinci and Lord Bacon is gone forever." Does he mean by this, that we will never again attain to the relative progress in manners, art, science, and statecraft, that obtained in the fifteenth, sixteenth, and seventeenth centuries? If such be so, then truly the editor's would be the philosophy of despair.

Yours truly,
W H STEERS, M D

November 15, 1937

A Help to the Mute

22 W 74 St,
New York City

To the Editor

It is my very sincere hope that the publication of this letter in some medical journal will help many mute invalids who, like myself, can no longer write or typewrite, but are still able to use the muscles which render winking possible. As for myself, being unable to tolerate light, I live in a darkened room with my eyes almost constantly shut. I am unable to open them voluntarily if they remain shut for a very few seconds. However, if some extraneous force opens them, I can very easily dictate my thoughts by certain winkings which I shall explain further on in my letter. Hoping to be of service to other mute individuals, I am dictating this compte rendu.

The fundamental basis of my system is the correspondence between the letters of the alphabet and the ordinal numbers one may attach to them. For each consecutive letter

I give the number representing its order in the alphabet. At first I used to indicate these numbers by means of the fingers, but the condition of my arms soon prevented me from continuing that method. Such numbers can most easily be evinced, however, by adding the numbers expressed by means of these winking.

Every simple winking of both eyes indicates 10, the left eye stands for 5, each winking of the right eye for 1. The letters I, N, R and S are somewhat lengthy to indicate by this general method. That is why I have particular signs for them.

I—the 9th letter in the alphabet is expressed by a contraction of the eyelids, or a prolonged tight winking of both eyes.

R—the 18th letter of the alphabet, is the same as two successive I's.

N—is a prolonged winking of the right eye.

S—is a prolonged winking of the left eye.

1—A	10—J	19—S
2—B	11—K	20—T
3—C	12—L	21—U
4—D	13—M	22—V
5—E	14—N	23—W
6—F	15—O	24—X
7—G	16—P	25—Y
8—H	17—Q	26—Z
9—I	18—R	

Kindly be good enough to read the letter I have written in 1933 to Professor C J Keyser, and which the editors thought it best to publish as a preface to my essay *Ecstasy* which I am sending under separate cover.

Very respectfully yours,

MAURICE SCLAKY

November 23, 1937

SERUM IN PNEUMONIA

That the physicians of the State may have concrete examples of different phases of anti-pneumococcus serum treatment of pneumococcus pneumonia, there will appear here case reports selected from the large number received by the State Department of Health on the use of anti-pneumococcus serum produced and distributed by it.

In order that physicians practicing in New York City or those using effective serum from other sources may also be represented, we hope that physicians who may have had particularly significant experiences with serum will submit short reports to the Pneumonia Editor, New York State Journal of Medicine, 33 W 42 Street, New York City—Editor

Case 8

Report from the records of the Lourdes Hospital, Binghamton

"A twenty-nine year old male adult with no history of previous illness had an onset of chilly sensations, followed by fever on March 3, 1937. On the following day he developed a cough productive of blood-tinged sputum. The patient was admitted to the Lourdes Hospital two days following onset of the disease (April 2) at which time he had signs of consolidation over the left lower lobe, confirmed by chest plate. The patient's temperature was 105°, pulse 120, and respiration 30. The sputum was typed immediately and a Type I pneumococcus was found.

"Serum therapy with Type I antipneumococcus serum was started and the patient received forty c c (50,000 units) intravenously on the day of admission. During the next five hours the temperature dropped to 102°. This remission was temporary, however, and by the morning of the third day of the disease, the temperature had regained its previous level where it was maintained in spite of two additional doses of 50,000 units each of Type I serum administered on that day.

"On the fourth day, because of lack of

response to serum therapy, the sputum was again typed and this time a Type VII pneumococcus was found. That evening two doses, each of 20,000 units of Type VII antipneumococcus serum, were administered. By noon of the following day, the temperature had dropped by crisis to 100.2° with dramatic improvement in the patient's condition. The temperature rapidly returned to normal where it subsequently remained.

"The patient's convalescence was uneventful, the chest being negative to physical examination on the eleventh day of the disease."

This case illustrates several important points. The patient was treated as a medical emergency, and sputum typing, skin testing, and serum administrations were carried out on the day of admission to the hospital. Also, serum was given in adequate dosage over a short period of time. During the first ten hours following the typing, the patient received 100,000 units of Type I serum and following a lack of response to this treatment, an additional 50,000 units was given five hours later. However, in spite of this the patient's condition remained unchanged.

When a patient with Type I pneumococci in his sputum does not respond to the early administration of as much as 150,000 units of Type I serum, it must be assumed for the purposes of treatment, that the patient has something more than uncomplicated Type I pneumococcus pneumonia. The common conditions that may be present in such a case are

- 1 Overwhelming infection with bacteremia
- 2 Error in original sputum typing
- 3 Localization of a focus, such as empyema, endocarditis, thrombophlebitis, meningitis
- 4 Mixed infection, either with another type of pneumococcus or with a hemolytic streptococcus, or other micro-organism.

Under such circumstances it is necessary that a very careful search for the complicating factors be made in order that the patient receive proper treatment. Such a search should include a careful physical examination, repeated blood cultures and a retyping and plate culture of the sputum.

In this case, the retyping of the sputum demonstrated another type of pneumococcus (Type VII) for which serum was also

available. It is impossible to say on the basis of the existing evidence in this instance whether the original typing was erroneous or whether the patient had an infection by the Type VII pneumococcus superimposed on a Type I infection, but the rarity of Type I pneumococcus as a contaminant would make one feel that it was probably the latter. However that may be, the therapeutic indications were clear. Type VII antipneumococcus serum was given and the patient had an immediate crisis. It should be emphasized that in the event that different types of pneumococci are found in definite specimens of sputum of the same patient, further sputum examinations should be made. These examinations should be correlated with previous findings and with blood culture data.

In this particular case, it might be argued that the crisis may have been a spontaneous one, not associated with the serum treatment. Whether or not this was so, it was obviously good therapeutic judgment to repeat the typing and to institute serum therapy for the second type as soon as it was accurately identified.

"GOODA MAN, GOODA MAN, GOD BLESSA"

The materializing influence of the machine age has at any rate not laid its cold hand on the profession of medicine. Countless instances like the one recorded below are occurring all the time, but this one happened to have an eloquent witness to tell us about it. The doctor was Warren Hildreth, of New York City, who died at his summer home at Southampton in October, and the narrator was an old friend, Rev. Jesse Halsey, of Cincinnati. The story appears in the *Southampton Press*. Said Dr. Halsey:

One summer night some six years ago Dr. Hildreth and I sat talking in his study. It was past midnight. The telephone rang. He answered. "Yes"—he would come.

I went with him, he driving his own car. It was away out beyond Jamaica that we went and to a very humble home—the wife of an Italian fruit-vendor needed his help. He the great physician with his demanding practice, went. I asked him, why? It was his job, he said. He had had this woman under his care while he was an interne years before. She needed him now again—desperately. And he was there. Fifth Avenue could wait.

At length he called an ambulance and brought

his patient back to Sloane and back to life ere morning. At breakfast time he came in tired—but happy. The fight was won.

I had driven his car back home, thinking many thoughts, that early morning. But before I left the little house in the suburb I had heard the little grandmother say a dozen times, "Gooda man, gooda man, God blessa." And the young doctor who was there doing his best, before the great doctor arrived, came out to the car and said, "You're lucky, sir, to be his friend. You should have seen him, he never shamed me before my patients. You'd have thought he was my assistant. He's a great man, sir!"

Yes, "God" and "Great" and great because good. Humble, strong, gentle, manly and with highly developed technical skill—all at the disposal of those in need! He gave himself.

Now he has taken with him, as is meet, his wisdom and his skill. But he has left us a goodly heritage and we rejoice in his tireless industry, in his great achievement and in the high place he holds in the respect and affection of many, many men and women and children—little and big.

We sorrow with his family, yet we rejoice in the love and pride which they feel in him. We thank God for the personal qualities that endeared him to us all, his belief in the pure, the true, the good, his patience, his courage, his willingness to serve.

Doctor "Well, madam, what is your ailment?"

Old Lady "Pains in my arms, doctor

I can hardly lift them over my head, and it's the same with my legs."—*Four Mich. State Med. Soc.*

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

New Years bring new problems and we wonder what the coming years have in store. Let us be prepared!

There was a time when organized medicine was on an undisturbed plane, when doctors were placed on pedestals and looked up to as gifts from God to suffering humanity. But today there are many forces working against this noble profession, either through ignorance or for political reasons, endangering the welfare of the public as well as the profession.

Have the laity of this generation forgotten the great plagues which once existed: yellow fever, smallpox, malaria and diphtheria? Have they forgotten the great men who gave untiringly of their time, knowledge, experience, and in fact offered their lives to wipe out those great scourges?

Do they realize that the standard of men accepted into this profession is ever being raised, that qualifications of medical students are higher, that the selection is more careful, that the cost of medical training is increasing, that medicine unceasingly marches on?

Do not tie the hands of these men by permitting the government to control their practice. Let that high standard of ethics, the Hippocratic Oath, continue to govern this great body as it has in the past. Give them the right to crusade against tuberculosis, cancer, pneumonia, syphilis, and all other diseases free from government antagonism now and forever.

The Legislature will convene in January and I would suggest that each County Auxiliary Chairman of Program plan to devote one meeting to the study of bills pertaining to medical legislation which will come before that body, that all members become properly informed on the views of organized medicine on such bills, and that those views be brought convincingly before the public. However, each County Auxiliary must at all times proceed under the guidance of its Advisory Council.

I have recently returned from the A.M.A. Auxiliary Executive Board meeting held in Chicago and feel more than ever the great privilege it is to be a member of such an organization, such high type women, so sincere in their efforts. And I

would like here to mention a few abstracts from the reports of State Auxiliary Presidents given at that meeting:

Alabama reported a scholarship fund for worthy medical students.

Colorado also reported a benevolent fund.

In Florida each County Auxiliary sets aside a fund sufficient to take care of delegates' expenses. The study of the Handbook is also stressed.

The Oregon State Auxiliary sent 500 letters to Parent Teachers Associations throughout the State, suggesting approved material for programs. 125 requests were received to date. 140 speakers from the Medical Societies are available to clubs.

South Dakota, over twenty years old, regretted to report that an osteopath was put on the State Board before the doctors knew about it.

The State of Utah reported one hundred per cent organization and a copy of *Hygeia* in every school in the state.

The Texas Auxiliary is establishing a State Library, collecting old medical books and medical pictures. Texas also reported that the sum of \$50,000 was willed by one doctor to aid this project.

Wisconsin has Hygeia Day. Every County Auxiliary is asked to do something on that day to raise funds to place *Hygeia* in the schools. In one week 101,000 people visited this Auxiliary's Hall of Health Exhibit.

Pennsylvania reported 2640 members and the sum of \$4570 added to its benevolent fund this year. The fund is being used to assist thirty-one needy doctor's widows. This State Auxiliary also gave \$250 to Mrs. Keck, National President, to use at her discretion in carrying on her work. Part of this sum she will use to have the national archives bound.

Every State reported increases in membership.

And while just in the second year of our existence, New York reports progress in every way.

Jefferson County was organized on November 11. A dinner preceded the meeting. Thirty-five women were present.

including Mrs John J Buettner, State Chairman of Organization and myself. We wish to extend to Mrs Harlow Farmer, first president, and her officers, chairmen and members, a hearty welcome, and we wish to congratulate Mrs Walter Fox Smith and her excellent committee for their stimulus and aid in organizing.

Best wishes also go forth to Mrs S P Jones of Mattituck who was elected president of the Woman's Auxiliary to the Suffolk County Medical Society at the annual meeting and luncheon held on November 17 at the Riverside Inn, Smithtown.

Mrs Luther H Kice, State Chairman of Legislation, addressed the group. Being a doctor's wife, doctor's daughter, and

doctor's mother has given Mrs Kice a wealth of experience in medical work.

I cannot urge too greatly the value of the National News Letter to County Presidents, and suggest that, if she has not already done so, she should send in her subscription of our State Chairman of Press and Publicity, Mrs Milton B Bergmann, 959 Bushwick Parkway, Brooklyn. Outside of the National Convention, this is your strongest tie with the A M A Auxiliary. To know the activities of your sister auxiliaries is an untold help and inspiration.

Let us all plan to attend the State Convention to be held in New York City May 9-12.

MRS FRANCIS R IRVING
President

1938 A M A MEETING—SAN FRANCISCO

When San Francisco was selected as the host city for the 1938 Annual Session of The American Medical Association, the profession of this Golden Gate Metropolis promptly initiated plans for the comfort, pleasure and entertainment of all who come to that national meeting. A local executive committee on arrangements composed of five members with Dr Howard Morrow as General Chairman and Dr Frederick C Warnshuis as General Secretary, and eighteen sub-committees have been busy since July in developing plans and local arrangement details. Their objectives are the biggest, best, and most memorable annual session in the history of the American Medical Association.

Atlantic City, Kansas City, Cleveland, Detroit, with their known facilities and attractions have been host cities in recent years, and have justified their selection as meeting places. However, and without disparagement, none of them possess the background, the setting, the resources, the history and romance, or the facilities that are

found in San Francisco and in the great state of California—the Golden Bear Empire of the Pacific Coast. To reveal these, to extend California's and San Francisco's noted hospitality, and to cause those who plan to attend the 1938 session to experience ten days of profit and pleasure midst the environs of the annual meeting city, is the goal toward which the local profession is pointing.

The Local Committee on Arrangements cordially invites the profession of the country to be San Francisco's guests this coming June. Decide now to attend the 1938 American Medical Association Meeting and plan accordingly. During the coming months an insight to some of the feature functions will be disclosed, but the final details and program of events will not be revealed until you arrive. You will long regret it if you fail to attend the coming national meeting. Talk it over tonight with the good wife and your professional associates, and join the party of your state members that is coming to San Francisco.

'FEW ARE CONVERTED AFTER THE FIRST 20 MINUTES'

That is as true of medical papers as it is of sermons, remarks President Joseph R Wiseman of the Onondaga Medical Society, in its *Bulletin*. And he gives a few more helpful hints for speakers at medical meetings, thus:

You may better adhere to your allotted time if you put your ideas on paper and then stick to what you have written without too many extra interpolations. Unless you have acquired the art, and it can be acquired, of expressing

yourself clearly and easily without the aid of the written page, your delivery will prove to be much more effective if read from a prepared paper.

The interest of the audience varies inversely with the amount of attention which the speaker pays to his manner of reading or speaking. Papers which are read in a monotone, with no change in pitch, and with no attempt to emphasize the important words or phrases, do not go over very well. A pause is one of the most effective methods of emphasis and often creates as good an impression as loudly spoken words.

Public Health News

Public Health Notes

J ROSSLYN EARP, L R C P, D r P H
New York State Department of Health

Attendance at County Meetings

In his address to the American Public Health Association Dr Charles H Goodrich stressed the importance of health officers attending the meetings of their county medical societies. A perusal of the reports of district state health officers encourages belief that at least some of them really do attend. When Dr Julius Hess spoke recently to the Albany County Society, the district health officer not only attended himself with his medical staff but he also telephoned to the health officers of the three large cities in his district and they too were duly present. Schenectady sent health officer, deputy health officer, and school medical inspector.

In another district Dr Hess's address to the Onondaga County Medical Society was made the occasion for launching a program of nursing care for all premature infants. Physicians cooperate by reporting the name of every infant who weighs less than 5½ pounds at birth. The city health department and the county public health nursing service contribute the nursing care

Periodic Medical Examinations

In the same speech in which he urged health officers to attend the medical society meetings, Dr Goodrich warmly advocated the periodic medical examination as a method of preventive medicine which deserves the interest of every practitioner. Here is a subject worthy of discussion at the county meetings.

The periodic examination has not been

without its critics. Some have complained that it makes hypochondriacs. If so, the blame must be placed not so much on the method as on the manner of its accomplishment. A discussion of this point might draw attention to a need for more psychology in the medical curriculum.

Others who wish to discredit the examination relate cases of patients who have died from heart disease within a year of taking the routine tests. Obviously this might happen after a perfectly adequate examination. The blame in this case lies with us writers who try to educate the public. We ought not to advocate examinations as a sort of insurance against every bodily ill. It is enough that some diseases may sometimes be caught in an early curable stage. And as our knowledge and technic advance more ills will be disclosed at even earlier stages.

A few years ago we were teaching the public the symptoms of "early" tuberculosis. Now we teach that "early" tuberculosis has no characteristic symptoms. It all depends on what we call "early" and what we mean by "symptoms." And that brings up the question of whether any periodic health examination is complete without a chest x-ray. And there are cognate questions such as how much time should the examination take? What laboratory tests should be made routinely? Where should reference to specialists be required?

There seem to me to be several aspects of this subject which would be worth talking over whenever health officers and practicing physicians meet together.

Thirty women physicians in Russia have completed their studies in parachute flying at the Moscow regional parachute school for the purpose of taking first-aid to patients in places where airplanes cannot land.

For the first time in many years a decline in the number of newly matriculated students of medicine at Vienna University is plainly observable, says a report in the *A. A. Journal*. It is declared to be "an

obvious consequence of the bad prospect presented by the medical profession in Austria. Private practice is being rapidly and steadily ruined by socialized medicine."

Arkansas reports an invasion of fake instrument salesmen, who call on doctors with meager stocks of samples, take orders at bargain prices, ask a deposit, and are never seen again. The physician finds too late that the company is mythical.

Medical News

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ON NOVEMBER 22 THE Albany County Bar Association were hosts to the County Medical Society. Max D Steuer, of New York City, spoke on "Medicine and the Law."

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THE MEDICAL SOCIETY OF THE County of Cayuga and the Cayuga County Bar Association met for their second annual joint meeting November 18th.

Mr Miller, Instructor at the Syracuse College of Law, discussed the application and effect of Section 352 of the Civil Practice Act, which provides that physicians

and nurses shall not disclose information acquired in attending a patient.

Erie County

THE FIVE-YEAR FIGHT of the Medical Society of the County of Erie to obtain compensation for Buffalo physicians for treatment of patients on the welfare rolls has entered a new phase following approval of the so-called "O'Gorman plan" at the society's November meeting by a vote of 271 to 63.

As a result of approval of the plan, which calls for an allotment of funds to the society by the city on the basis of so much a month for each family or each member of a family on the relief roster, the society's committee on economics, headed by Dr Joseph C O'Gorman, sponsor of the plan, will approach city officials with the view of obtaining funds to carry out the proposal.

Under the plan, its proponents say, the potential rate of pay for indigent cases may range from twenty-two to thirty-five cents an individual a month. Some of the detailed provisions of the O'Gorman plan are:

- 1 The Medical society proposes to furnish medical care in the home to the indigents of Buffalo based on subsequently agreed monthly flat rate per family or per individual on welfare.

- 2 The administration of the care will be under the sole direction of the Medical society and will embrace free choice of physicians and assignment by the society where no choice is made.

- 3 All details pertaining to the administration of the plan will be directed from the office of the Medical society in Hotel Statler.

- 4 Any physician who is licensed to practice in the state of New York and who is registered with the county clerk's office of Erie county may register with the Medical society to serve under this plan.

- 5 The agreed monthly budget, less cost of administration, will be allocated by the society to the physicians on a basis of services rendered.

- 6 Drugs, medicines and supplies prescribed will be furnished by a separate agreement approved and financed by the Buffalo Board of Public Welfare.

- 7 This plan applies only to medical care in the home and is not intended to replace existing hospital or clinic facilities.

Dr O'Gorman explained that it is not the plan to have the medical society actually handle city funds, but for it to determine the amount due a physician and present his bill to the Welfare department for payment.

from the funds budgeted for the medical care of the indigent.

Most of the sixty-three negative votes were cast by members of the society from Erie county outside of Buffalo, proponents of the plan declared.

These members they explained fear that adoption of the "O Gorman plan" in Buffalo may result in a reduction in the fees now being paid physicians of the county outside of Buffalo for treating indigent patients.

The present compensation outside of Buffalo is \$1 an office call and \$2 a home call, forty per cent of which is returned to the county by the state.

Candidates were nominated at the session for the annual election Dec. 20. Dr. Harry C. Guess, first vice president was nominated to succeed Dr. John T. Donovan in the presidency. Dr. Carlton E. Wertz now second vice president, was nominated for first vice president.

Nominated for second vice-president were: Dr. Stephen A. Graczyk, Dr. Herbert E. Wells and Dr. Harvey P. Hoffman.

Dr. Louise W. Beamis, secretary, and Dr. Caryl A. Koch, treasurer, were nominated to succeed themselves.

SOCIALIZED AND SUBSIDIZED medicine were discussed by Dr. Irvin Abell of Louisville Ky., president-elect of the American Medical Association, and Dr. Morris Fishbein of Chicago, editor of the *Journal of the American Medical Association*, before the Buffalo Academy of Medicine on Nov. 17.

Dr. Abell spoke at a clinical session in the afternoon and Dr. Fishbein was the speaker at dinner in the evening, both in Hotel Statler.

Dr. Abell, who is also clinical professor of surgery in the University of Louisville School of Medicine, considered the "Responsibility of the Profession." Dr. Fishbein's subject was "Social Security and the Physician."

Three other medical authorities spoke at the afternoon clinical session.

Dr. Rudolf Schindler, associate professor of medicine in the University of Chicago school of medicine, "Diagnosis of Lesions of the Stomach by Gastroscopy."

Dr. Robert Louis Levi, professor of clinical medicine in the Columbia University College of Physicians and Surgeons, "Drugs in the Treatment of Diseases of the Heart."

Dr. Richard Bartley Cattell of the Lahey clinic, Boston, Mass., "Diagnosis and Management of Surgical Diseases of the Colon and Rectum."

CAROLINE LICHTENBERG, thought to

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Dr. SIDNEY FRANCIS BLANCHET, a practicing physician at Saranac Lake for more than twenty-five years, died on Nov. 12 at the Columbia Medical center in New York City, where he had been a patient since Easter.

Greene County

Dr. ALTON B. DALEY was elected president of the Greene County Medical Society at the annual meeting at Walters Hotel, Cairo.

Other officers were named as follows:

Dr. George L. Branch, vice president, Dr. William M. Rapp, secretary, Dr. Mahlon H. Atkinson, treasurer, Dr. Percy G. Waller, chairman of the Legislative committee, Dr. William A. Petry, chairman of the Public Relations committee, Dr. Kenneth Bott, delegate to the State Society, Dr. Edwin G. Mulbury, alternate to the State Society.

Dr. Henry Tebbutt was guest speaker.

Herkimer County

ANOTHER STEP in the formation of a medical staff at Herkimer Memorial hospital was taken by the Herkimer Academy of Medicine at a meeting at the home of Dr. F. M. Neuendorf, on Nov. 16.

The physicians passed a resolution recommending that the present officers of the academy be retained as officers of the new staff.

Officers of the academy are: President, Dr. James W. Graves, vice president, Dr. John E. Canfield, secretary, Dr. Howard C. Murra, treasurer, Dr. F. H. Moore.

Kings County

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(a) Address "Vitamin Requirement and the Clinic," George P. Cowdell, Ph.D., New Haven, Conn. (b) Address "Diagnosis of Diseases of the Liver," Richard Bauer, M.D., Vienna, Austria. (c) Presentation of Portrait of Dr. Glenworth R.

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second vice-president, Alfred M. Hellman, M.D., secretary, B. Wallace Hamilton, M.D., assistant secretary, Francis N. Kimball, M.D., treasurer, Kirby Dwight, M.D., assistant treasurer, George Baehr, M.D., Censors (for two years) Vincent Fanoni, M.D., Maximilian A. Ramirez, M.D., Howard C. Taylor, Jr., M.D., chairman, Committee on Legislation Samuel B. Burk, M.D., chairman, Committee on Civic Policy, Edward C. Brenner, M.D., chairman, Committee on Economics, Joseph A. Devlin, M.D., chairman, Committee on Membership, Harold E. B. Pardee, M.D., trustee (for five years), Adolph G. De Sanctis, M.D.

A report of the election in the New York *Post* says

The first organized attempt by rank-and-filers within the New York County Medical Society to wrest the four important committee chairmanships from the regulars went down to defeat at the annual election meeting at the Academy of Medicine last night.

The Joint Committee of Physicians Organizations, the rank-and-file group, was far from discouraged by the 2 to 1 defeat, however.

The rank-and-filers saw in their vote—out of a total of about 750 cast—a mandate to continue their program.

They are fighting for pay for part-time doctors working in city clinics and hospitals, pay for internes, prevailing rate of fees from the Emergency Relief Bureau and affirmation of the policy that "the health of the people is the direct concern of government."

The defeated candidates included Drs. Harry S. Mackler, Israel E. Kirsh, Louis Finger and Lillian DeMuth, who sought the chairmanships of the committees on legislation, civic policy, economics and membership.

There was no opposition to the regular slate of executive officers.

DR. HARRISON S. MARTLAND, Professor of Forensic Medicine, New York University College of Medicine, will speak at the New York Academy of Medicine at 8 15 P.M., Dec. 23, on "Dr. Watson and Mr. Sherlock Holmes."

DR. EUGENE M. LANDIS, Assistant Professor of Medicine, University of Pennsylvania, will speak at the New York Academy of Medicine at 4 30 P.M. Dec. 17, on "Recent Advances in the Diagnosis and Treatment of Peripheral Vascular Diseases."

THE 1938 WILLIAM H. NICHOLS Medal of the New York section of the American Chemical Society has been awarded to Dr. Phoebus A. T. Levene of the Rockefeller Institute for Medical Research.

DR. GEORGE B. WALLACE, pharmacologist and senior member of the faculty of the New York University College of Medicine,

was honored by the presentation to the college on Nov. 15 of an oil portrait of himself at exercises commemorating his thirty-six years of teaching in the institution. More than 100 persons attended the ceremony in the Student Lounge of the College of Medicine.

Niagara County

DR. RUSSELL T. CECIL, professor of medicine at Cornell University, spoke on "Recent Progress in the Arthritis Problem" at a meeting of the Medical Society of the County of Niagara on Nov. 9. Dr. Nelson G. Russell and Dr. Maxwell Lockie led the discussion. A subscription dinner was given at the Hotel Niagara preceding the meeting.

THE ANNUAL MEETING was held at the Niagara Hotel, on Dec. 14. Drs. David J. Kaliski and Frederic Elliott of the Workmen's Compensation Committee, were the guest speakers—*Reported by Forrest W. Barry, M.D., Sec.*

Onondaga County

DR. DAVID F. GILLETTE was nominated for the presidency of the Syracuse Academy of Medicine at the November meeting. Speakers and leaders of discussions which followed were Dr. Wardner Ayer, Dr. H. Walden Retan, Dr. Paul Lowry, Dr. E. J. Goldman and Dr. Leo E. Gibson.

Other nominees were Vice-president, Dr. P. K. Menzies and Dr. Brooks W. McCuen, secretary, Dr. Floyd Parker and Dr. George S. Reed, treasurer, Dr. Ellery G. Allen and Dr. Clifford E. McElwain, council, Dr. Brewster Doust, Dr. Mortimer G. Brown and Dr. Carl E. Muench, trustees (three to be elected), Dr. F. C. Ruhson, Dr. D. S. Childs, Dr. Gerald C. Cooney and Dr. Leo E. Gibson.

Orange County

DR. FRANK D. MYERS was elected president of the Orange County Health Association at the annual meeting in the parish house of the Goshen Presbyterian Church on Nov. 10. He succeeds the Rev. Forrest P. Hunter, president for the past five years.

DR. ROBERT E. PLUNKETT, superintendent of state tuberculosis hospitals, spoke on the public's responsibilities in tuberculosis control. He was introduced by Dr. D. R. Gordon, superintendent of Odell Sanatorium.

Queens County

DR. JOHN L. KANTOR, of Montefiore Hospital, spoke at the Queens County So-

Butler Gift of Mrs Glentworth R. Butler Presentation speech by Dr Robert L Dickinson Unveiling by Dr Butler's grandson, Glentworth Butler Hewitt.

DEVELOPMENTS IN TREATMENT for the hard of hearing were discussed at a meeting held under the auspices of the section of laryngology, rhinology and otology of the Medical Society of Kings County at the society's headquarters, on Nov 10 About 150 physicians attended the meeting

Addresses were made by Dr John W Durkee, senior surgeon at the Brooklyn Eye and Ear Hospital, whose subject was "The Hard of Hearing Patient and His Physician," State Senator Jacob H Livingston, who told of "Current Events in the Work for the Hard of Hearing," and Joseph J Endres, chief of the Bureau for Physically Handicapped Children of the State Department of Education Senator Livingston is chairman of a State Legislative commission which is investigating facilities for treatment of the deaf and the hard of hearing, and is chairman of the Senate Committee on Public Relief and Welfare In his address he told of the work of the commission which he heads

Estelle E Samuelson, secretary of the New York League for the Hard of Hearing, answered questions pertaining to the work of her organization

A MEETING OF THE Medical Society of Bay Ridge was held at the Shore Road Academy on Nov 9 Dr Pedro Platou presided The subject of the evening was a paper on "The Endocrine of the Menopause" by Raphael Kurzrok, M D The discussion was opened by Charles Howard Bernberg, M D, and George Hamilton Davis, M D, F A C S, and then continued by members of the society About sixty physicians were present

A BROOKLYN UNIT of the League for the Advancement of Socialized Medicine and Dentistry was organized by 75 physicians and dentists, who met at 62 Hanson Place on Nov 23

Addresses favoring socialization of the professions were made by Dr Jones Selverstone, a dentist, and Dr Joseph Slavitz, a physician Dr Herman Ausubel, former president of the Kings County Dental Society, was chairman

THE FOLLOWING MEETINGS of local Medical Societies were scheduled for early December

Dec 6—Monday East New York Temple Auditorium, 251 Rochester Ave, 9 00 pm 1 "Bleeding in Pregnancy," Harry

Aranow, M D, Manhattan 2 "Sterility Its Causes, Investigation and Treatment" (a color motion picture presentation), S L Siegler, M D, Brooklyn

Dec 9—Thursday South Brooklyn Y M C A, 9th St and 6th Ave, 9 00 pm "The Relief of Symptoms in Pulmonary Disease," Burgess Gordon, M D, Philadelphia "Back Injuries in Industrial Cases," Leopold Brahdy, M D, Manhattan

Dec 13—Monday Williamsburg Medical Leon Louria Auditorium, Jewish Hospital, St Marks and Classon Aves, 9 00 pm "The Menopause and Its Modern Treatment," Samuel H Geist, M D, Manhattan

Nassau County

A CONFERENCE WAS HELD on Nov 19 at the Hempstead town hall because of a sudden rise in mad-dog bites and cases of rabies in pets in Nassau county, particularly in the towns of North Hempstead and Oyster Bay Dr Dickinson presided at the session, which was attended by Dr William H Runcie, health officer of the town of Hempstead, Dr Charles A Steurer, health officer of the town of North Hempstead, Dr Raymond E Lease, health officer of the town of Oyster Bay and health officers from eighteen villages

The report of two cases of rabies in North Hempstead and one in Oyster Bay was read at the meeting Although no rabies cases have been reported in the town of Hempstead it was agreed to include the entire county in the certification because of the danger of infected animals traveling about the county

Dr Dickinson will submit a recommendation to the state health commissioner urging that the state law pertaining to rabies epidemics be applied to Nassau county

When the existence of rabies is officially recognized by the state authorities all dogs must be muzzled or leashed while on the public highways or they will be subject to immediate seizure

Dog catchers are authorized under the state law to destroy immediately all dogs picked up if they show any evidence of rabies Municipalities where the dogs are picked up must pay the dog catcher \$4 for each animal destroyed Dogs not destroyed may be redeemed by their owners for \$2

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President-elect, Howard Fox, M D, first vice-president, Walter P Anderton, M D,

Hospital News

Confusion Over Secrecy of Hospital Records

AN ENTERTAINING FEATURE OF the convention of the Hospital Association of New York State last spring was a clever skit, or playlet, in three scenes, picturing the attempt of a shyster lawyer to get his hands on the hospital record of a patient whose case was to come up in court. He was foiled by the strategy of the record librarian, record room clerk, and hospital's attorney, and their legal maneuvers in the play were meant to show the assembled hospital representatives how to handle such tricksters. The legal crook was played by Mr. Leighton M. Arrow-smith, Superintendent of St. John's Hospital of Brooklyn, who wrote the piece. At one point in the play the record librarian remarked to the record clerk:

"You've got *lots* to learn. The Hospital Record Room is the natural prey of all kinds of crooks. We *hold secrets* that would be worth a mint of money in the wrong hands. Many a blackmail suit has started from a patient's history. I'd hate to think that some slicker put one over on me. But, believe me, I'm on my guard every minute. You've just got to be tough in this job, Alice, and I mean real tough."

Legal Atmosphere Is Foggy

And it isn't as if the hospital can always be sure of the support of the law, either, it seems, for the legal situation on this point is decidedly foggy. Before the presentation of the skit by the Arrowsmith players a valuable paper on the "Legal Status of Hospital Patients' Records" was read by Dr. A. R. Bowles, Assistant Director of the Grasslands Hospital at Valhalla. He hoped, he said, that his remarks would "add stimulus to the current movement to induce all hospitals in the state to adopt and to enforce uniform regulations concerning the usages of their medical records."

He began by asking "What is the legal status of hospital medical records in this state?" and replied "Frankly, I don't know, and I am not sure that anyone knows." He proceeded

"First, let me explain the basis of the bold statement I have just made

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ciety Building on Nov 19 on "Disorders of the Colon"

Rensselaer County

INTERESTING PAPERS WERE READ at the meeting of the Rensselaer County Medical Society on Nov 9, one on "Bell's Palsy" by Dr James C Donnelly, and the other on "Diagnosis and Management of Pneumonia" by Dr Edwin A Locke former physician-in-chief of the Boston, Mass, City Hospital

Officers were nominated, to be voted upon at the December meeting

DR M J KEOUGH HAS BEEN appointed health commissioner of Troy

Richmond County

THE STORY OF THE Mayo Brothers Clinic in Rochester, Minn, was told to the members of the Richmond County Medical Society on Nov 10 at the Staten Island Club, St Mark's place, St George, by Dr Jolin J Goller and Dr Lynn Halbert

Dr Goller and Dr Halbert recently went to Rochester for post-graduate work in surgery

Dr Goller, who is on the staff of St Vincent's Hospital, described the early history of the Mayo brothers and their father, Dr William Worell Mayo, who started their clinic in 1863

Dr Halbert, who is on the Staten Island Hospital staff, described the new technics in gastric resection taught at the Mayo Clinic. He used motion pictures and x-ray films to illustrate his lecture

Rockland County

"THE RELATIONSHIP OF SPECIALTIES TO GENERAL MEDICINE" was the subject of a course of lectures delivered to members of the Rockland County Medical Society, Friday afternoons in November, at the Summit Park Sanatorium, Pomona.

Steuben County

A DINNER MEETING OF THE Steuben County Medical Society was held in Bath on Nov 11. The speaker was Dr James Cole

Tompkins County

CORNELL HAS TIGHTENED its health regulations for all students, participating in organized athletics, by putting into effect a rigid set of rules proposed by Dr F F Smuley, medical adviser. The rules, for

athletes competing in varsity, freshmen, or intramural sports, have been adopted by the Board of Athletic Policy

Major features of the rules provide that no student may participate in any form of athletics without first being certified as physically qualified by the medical adviser of the university, team physician, or one of the assistant medical advisers

They also provide for a team physician to care for all injuries received in varsity or freshmen athletics and outline the procedure for taking care of injuries in intramural athletics

No bills for medical service or supplies of any kind will be paid by Cornell's Department of physical education and athletics unless authorized by the director, medical adviser, or team physician

A record of all injuries in all departments will be kept by the team physician and a summary of his records will be submitted annually to the medical adviser and director of physical education and athletics

Warren County

THE GLENS FALLS ACADEMY of Medicine met on Nov 19 in the auditorium of the Crandall Library to hear Dr Louis Hamman of Baltimore, Md, speak on "The Spontaneous Interstitial Emphysema of the Lungs". Dr Hamman is associate professor of clinical medicine at Johns Hopkins Hospital, Baltimore. Members of the Academy entertained the guest speaker at dinner

Westchester County

ADDRESSES BY TWO physicians featured the joint dinner-meeting of the New Rochelle Dental and Medical Societies on Nov 8

Dr H B Wightman, president of the Medical Society, officiated as chairman, introducing Dr W C Carr, oral surgeon at the Metropolitan Hospital, and Dr Edward Hartung, chief of the Arthritis Clinic in the Post Graduate Hospital, New York City

Dr Carr spoke on "The Role of Oral Surgery and its Relation to General Medicine" while Dr Hartung's topic was "Focal Infections and Their Relation to Arthritis". Both speakers illustrated their lectures with lantern slides and a general discussion followed

RECENT ADVANCES in diagnosis and management of acute surgical conditions were discussed by Dr C S B Cassasa, director of surgery at Harlem Hospital and assistant medical examiner of New York City at the 369th meeting of the Mount Vernon Medical Society on Nov 18

Hospital News

Confusion Over Secrecy of Hospital Records

AN ENTERTAINING FEATURE OF the convention of the Hospital Association of New York State last spring was a clever skit, or playlet, in three scenes, picturing the attempt of a shyster lawyer to get his hands on the hospital record of a patient whose case was to come up in court. He was foiled by the strategy of the record librarian, record room clerk, and hospital's attorney, and their legal maneuvers in the play were meant to show the assembled hospital representatives how to handle such tricksters. The legal crook was played by Mr. Leighton M. Arrow-smith, Superintendent of St. John's Hospital of Brooklyn, who wrote the piece. At one point in the play the record librarian remarked to the record clerk:

"You've got *lots* to learn. The Hospital Record Room is the natural prey of all kinds of crooks. We *hold secrets* that would be worth a mint of money in the wrong hands. Many a blackmail suit has started from a patient's history. I'd hate to think that some slicker put one over on me. But, believe me, I'm on my guard every minute. You've just got to be tough in this job, Alice, and I mean real tough."

Legal Atmosphere Is Foggy

And it isn't as if the hospital can always be sure of the support of the law, either, it seems, for the legal situation on this point is decidedly foggy. Before the presentation of the skit by the Arrow-smith players a valuable paper on the "Legal Status of Hospital Patients' Records" was read by Dr. A. R. Bowles, Assistant Director of the Grasslands Hospital at Valhalla. He hoped, he said, that his remarks would "add stimulus to the current movement to induce all hospitals in the state to adopt and to enforce uniform regulations concerning the usages of their medical records."

He began by asking "What is the legal status of hospital medical records in this state?" and replied "Frankly, I don't know, and I am not sure that anyone knows." He proceeded

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"During the past two years, I've had a lot of fun arguing with lawyers and with representatives of insurance companies who have come to the hospital to demand access to the records of particular patients. Those of you who have had to deal with these pestiferous fellows know that there seems to be no end to the contentions they can think up, nor any bottom to their bag of cagey tricks. Of necessity, I have had to fall back time and again upon the hospital's legal counsel and have spent quite a bit of time delving into law books with them. Thus far, we have been unable to find a clear-cut, uncontrovertible definition of the status of hospital medical records, as confidential documents, either in the statutory laws or in the decisions of the high courts of this state. This seems almost incredible. Yet I think we have gone into at least the most obvious reference resources

"Here is another important point. During the last two years we have had disputes with certain of the judges in County Courts and in the Supreme Court, in our area. These judges are all learned and highly respected men, yet they are, apparently, not in agreement as to the status of our hospital medical charts. Some of them treat them as confidential documents while others treat them very much as they would books of account, statistics, or what have you. For example, some time ago, we were served with a court order to display the record of an ex-patient to the lawyers of her husband, in preparation for annulment proceedings. Needless to say, we put up strong resistance and offered to make a test case of it. The lawyers for the husband backed down and agreed to have the order vacated. Then again, our records, taken to court in answer to subpoenae duces tecum, have been ordered by some of the judges to be shown to the lawyers before the patient had testified as to his illness or injuries, whereas, other judges do not permit such a practice.

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A Cardinal Rule of Medical Ethics

This confusion prompts Dr Bowles to "turn to some fundamental principles" As he put it

Let us then turn to some fundamental principles One of the cardinal rules of medical ethics requires a physician to keep in absolute confidence anything he learns about his patient This includes statements made to him by the patient, the things he observes in the patient's home, and everything he learns from physical and laboratory examinations There are a few exceptions to this rule, such as those concerning the reporting of communicable diseases, a patient treated for gun-shot wounds, and death due to unnatural causes, etc However, the exceptions prove the rule

'Unless we had this rule of ethics, medical practice would be well-nigh impossible Patients entrust to physicians information which they won't reveal to even their closest relatives or most intimate friends Unless they can trust the physician to keep this information secret, they would hold back information which might be of paramount importance to the establishment of a correct diagnosis and the administration of correct therapy Everything possible must be done to encourage patients to confide in their physicians As it is, we have to deal with all too many individuals who refuse to tell us the whole truth about themselves and their families It seems *foolish* for them to take this attitude and yet we can see their side of the problem The public in general still attaches a stigma to various diseases The venereal group is an obvious example There are still communities of people who speak of tuberculosis in whispers by the old name "consumption" I am told that there are certain racial groups who still place a taboo on families rumored to have a member with diabetes or cancer or pernicious anemia Apparently, there is no end to the list"

How the Rule Can Be Maintained

The uncertainty that clouds the hospital's right to hold a medical record as confidential and secret under the rule of ethics just mentioned is portrayed as follows by Dr Bowles, who calls upon the Hospital Association and State Medical Society to foster legislation to bring order out of chaos

So far as I know, there is no law which requires a physician to obey this rule of ethics, but the principle is recognized in law in Section 352 of the Civil Practice Act which states as follows

"Physicians and Nurses Not to Disclose Professional Information A person duly authorized to practice physics or surgery or a professional or registered nurse shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, unless, where the patient is a child under the age of sixteen, the information so acquired indicates that the patient has been the victim or subject of a crime, and so forth"

There is a similar Section dealing with the confidential privilege of communications between clients and lawyers A further portion of this law provides that the confidential status of the communication is broken if a third party is present at the time the communication is given There are some exceptions to this rule, but I must admit that I'm not yet quite certain of all of them I *believe* I am correct in stating that one exception permits a lawyer's assistant or his stenographer to be present and not break the confidential privilege of the statements made by the client Yet the argument is advanced that the presence of an intern, or a nurse, or any other hospital worker, when a physician interviews or examines his patient automatically destroys the confidential relationship! Some lawyers have also argued that if a patient allows a record to be kept, knowing that interns or nurses or possibly others (such as medical students, record librarians, social workers, etc.) may be permitted to read it, then no confidential privilege exists! Hence, according to this, patient records are common property

My rebuttal to this type of argument is as follows

1 It is generally recognized that hospitals are absolutely necessary to the successful treatment of many diseases

2 It is necessary for the physician treating patients in a hospital to have the assistance of house staff physicians, of graduate nurses, and nurse helpers (such as attendants, orderlies, etc.), and often social workers These members of the hospital personnel are regarded as direct assistants to the physician and, as such they are obliged to conform to all the rules of medical ethics The hospital must also insist that all of its other personnel refrain from revealing to any one other than the physician or his direct assistants, anything they may happen to learn about the patients, otherwise, patients wouldn't go to hospitals

3 Properly kept medical records are essen-

tial to the safe and efficient care of hospital patients. You are all familiar with this point, I am sure, so I shall not elaborate upon it.

4 Hospitals guard their medical records as confidential documents (or, at least, they should).

Therefore, the presence of hospital employees, when a surgeon converses with, or examines a patient, does not break the confidential relationship, nor does the tacit consent of the patient to the keeping of a medical record destroy that relationship.

When all is said and done, *a hospital medical record is nothing but a privileged confidential communication in written form.* As such, all legal rules which apply to confidential communications between patient and physician should also apply to hospital medical records. *That is what I believe the legal status of medical records should be.*

Within the past year, the Court of Appeals of the State of Missouri has clearly enunciated this principle. This case was abstracted in the *Journal of the American Medical Association*, page 2158, December 26, 1936. There is also a

notation concerning it in *Hospitals*, page 64, January 1937.

As I mentioned before, I have thus far been unable to find that the high courts in this state have ever ruled on this question. Also, if I am correctly informed, the situation is not covered in the Common Law.

It can be further shown that hospital records are of great importance to medical research for improved methods of diagnosing and treating diseases. Therefore, they are of importance to the general welfare of the people and everything possible should be done to make it safe for physicians and hospitals to keep proper medical charts, at the same time protecting the confidential relationships with their patients.

What to do about it? In the first place, I urge that all hospitals cling firmly to the principle that hospital medical records are privileged communications in written form. Second, I suggest that the officers of this Association, in conjunction with the officers of the Medical Society of the State of New York, foster legislative enactments which will properly establish the legal status of hospital medical records.

Improvements

ST MARY'S HOSPITAL, Brooklyn, has been rebuilding during the summer months. A new entrance and roadway have been constructed onto the West wing. A span over the West wing, built as a fire exit, offers opportunity for relief of waiting-room congestion. Wards 1-2 and 3-4, and several semi-private rooms have been reconditioned. The change of location of the chaplain's quarters has made possible the arranging of a new four-bed room and a waiting room for visitors. A private conference room has also been arranged.

THE WYOMING COUNTY Community Hospital has a new maternity wing.

THE WESTCHESTER COUNTY FEDERATION of Women has asked the board of supervisors to provide funds for additional beds in the psychiatric division at Grasslands Hospital at Valhalla, on the plea that "the increase in sex crime throughout the country must be met through psychiatric services," and the facilities at Grasslands are overcrowded.

and comfort are included in plans for the new \$100,000 nurses' home under construction as an adjunct of the Victory Memorial Hospital, New York City. The new structure will have wardrobes and furniture of pressed steel and baked enamel. It will be ready for occupancy in February 1938.

THE \$400,000 MAX AND FLORA EINHORN Memorial Building of the Lenox Hill Hospital, at 131 E 76 St, New York City, was dedicated in the presence of 300 persons, including many physicians and surgeons, in October.

The building is a gift of Dr Max Einhorn, noted gastroenterologist, who has been associated with the hospital for more than fifty years. It includes a twenty-five-bed pavilion, an auditorium, a roof garden, a hydrotherapy department, and a swimming pool.

MAYOR LAGUARDIA, in a statement says that Dr S S Goldwater, Commissioner of Hospitals, is justified in pressing for the erection of the Triboro Tuberculosis Hospital on the grounds of the Queens General Hospital in Flushing-Hillcrest. The mayor stated

"Even if the city were to benefit from the State's new program—and there is no reason why it should not get its share in the tubercular hospital program—these two hospitals, the Triboro and the Riverside on North Brother's Island would still be needed"

THE CONSTRUCTION OF A modern addition to Memorial hospital in Buffalo is being considered, it is announced by Charles Duchmann, 65, who for forty-one years has been superintendent of the institution founded that many years ago as the German hospital

Newsy Notes

A DISPATCH FROM NEW HAVEN says that the "hot money" changers are now using babies in their flim-flam, but neither the babies nor their mothers know it. Local hospital cashiers have been stuck for \$100 each by a smooth gentleman who calls at the office and smilingly confides that he is "going upstairs to leave a little present for Baby Blank," and asks to have five rumpled \$20 bills changed for newer ones.

It doesn't take the cashier long to discover that the rumpled bills are counterfeit, but the gift-bringer is nowhere to be found. In each case the name of a baby or mother actually in the hospital was used, and the supposition is that the counterfeit-passer consulted the birth-columns of the local papers for his information.

ST JOHN'S UNIVERSITY School of Pharmacy, Brooklyn, began a new course in hospital pharmacy with the opening of the school year. Morris Dauer, PhG, BSc, chief pharmacist of King's County Hospital, City of New York, department of hospitals, and chairman of the committee on hospital public service pharmacies of the New York Pharmaceutical Association, is the instructor. Because of the high type of skill and training that a hospital pharmacist must possess, it is understood that the qualifications demanded can best be instilled only at a college or a school of pharmacy by a professor or educator who has had personal contact and experience in the field of hospital pharmacy.

THE PROBLEM of rehabilitating tuberculosis convalescents discharged from Grasslands Hospital but not yet ready to resume their normal place in the community, was presented to New Rochelle, on Nov. 8 at the home of Mrs. William H. Lough who has succeeded her husband on the

Board of Directors of the Westchester County Tuberculosis Association.

The meeting, attended by representatives of agencies dealing with the patients and convalescents, stressed the need for an organized program of rehabilitation, with establishment of a workshop, a major part already underway.

There are more than twenty convalescents in boarding homes throughout New Rochelle, it was pointed out, with many eager to find some means of making money and starting back on the road to self-support.

Difficulties to be met, it was pointed out, are the change from the organized life at Grasslands to one in a boarding home, the physical inability of the convalescents to do full-time work, the breaking down of their morale and their lack of equipment to begin life again.

MAYOR LA GUARDIA says in a statement that although New York city pays about sixty-eight per cent of the cost of maintaining hospitals upstate, the city receives little or nothing for its own hospitals from the state. The mayor expressed the hope that the city would receive its fair share of the \$40,000,000 bond issue for hospitals authorized by the electorate on November 2.

MR. FREDERICK A. SHARPE, the new executive director of the White Plains Hospital, has made public the results of a study showing that the hospital is overcrowded. "It amply justifies the judgment of the board regarding the soundness of the building program adopted a year and a half ago," he says.

THE ANNUAL DINNER AND DANCE of the

Beth El Hospital in Brooklyn in November netted \$25,000 to apply on its deficit. Tickets were \$100 a couple

IN THE LAST YEAR the junior auxiliary made over 8000 articles for the Peekskill Hospital

AS THE RESULT OF OVERCROWDED conditions in New York State institutions, 150 mentally defective persons in Brooklyn alone are free to associate with the public while awaiting commitment to a state school. This fact was revealed recently in testimony before the legislative committee investigating sex crimes. Although the need for commitments was reported as urgent, the two institutions available to the city, Letchworth Village and the Wassaic State School, could not care for all the feeble-minded.

Dr Gladys McDermid, alienist in the mental hygiene clinic of Kings County Hospital, told the committee that admissions to Letchworth Village and Wassaic had been closed except during a few intervals, for the last two or three years. She pointed out that an institution was needed nearby to handle emergency cases.

THE STAFF OF BAY RIDGE Hospital celebrated the twenty-fifth anniversary of its founding with a jubilee dinner at the Hotel Towers, Brooklyn, on October 30. The keynote of the celebration was the unusual success attained by this hospital, which is owned, managed and conducted by doctors. It started modestly in 1912, when five Brooklyn physicians, faced with a shortage of convenient hospital facilities, borrowed \$6,000 and leased the property at 437 Ovington Ave. And now it is a \$400,000 institution,

with modern equipment, although it has never received one dollar in endowment from any source. From the very start it was a success and all the profits were spent in expansion and improvements. Its maternity ward has delivered 5,000 babies and in the last four years there was not a single maternity death.

Although as a private hospital it has cared for some 37,000 bed patients, with the cooperation of the medical staff many deserving patients, emergency and accident cases, have been cared for free of charge. The need for medical charity is so great that the officers are considering an endowment drive.

Dr Carl H. Mayne, who is president of Dr Henry F. Bruning, vice president, and Dr John P. McQuillin, the treasurer, were among the five doctors who started the hospital twenty-five years ago. The other two were Drs Benjamin Kopf and Roderick Byington. Dr Edmund O. Darbois is secretary and Mrs Gertrude E. Mathewson is superintendent.

TWINS WERE born on October 18 at the McCarty Hospital in Saratoga Springs—the first that institution has seen since Dr Richard H. McCarty advertised thirty years ago that he would award \$100 to the mother of the first twins born there. In 1907, Dr McCarty, owner of the hospital, inserted his advertisement in a local paper. Triplets have been born at the hospital and Dr McCarty has delivered eleven sets of twins at the parents' homes since that time. But not until now did any one claim the award. Twins, a boy and girl, were born at the hospital to Mr and Mrs Kirtland Woodcock of Saratoga, October 18. Dr McCarty presented Mrs Woodcock \$100 and also gave \$25 to each of the twins. Mrs Woodcock was at one time employed at the hospital.

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN CHOSEN
Dr C. Harvey Jewett, to be president of the F. F. Thompson Memorial staff physicians at Canandaigua
Dr Clare N. Shumway, to be president of the medical staff of Corning Hospital

Dr Harry J. Worthing, to be head of the Pilgrim State Hospital at Brentwood, L. I.
Dr Johnston MacLeod, to be chief of the medical division of Flushing Hospital
Mrs Hubert J. Treacy, to be president of the Ladies Aid Society of St. Joseph's Hospital at Far Rockaway

Medicolegal

LORENZ J. BROSNAN, ESQ.
Counsel, Medical Society of the State of New York

Treatment of Injuries Sustained in Automobile Accident

A doctor who specialized in orthopedic surgery was called to a hospital to attend a young woman who had injured her arm in an automobile accident. He found that she was suffering from a comminuted fracture of the lower third of the left humerus, for which she had already received first aid treatment. He undertook to reduce the fracture and applied traction suspension with pulley and weights, holding the fragments of the arm in position and leaving the arm joints movable within proper limits.

The following day the doctor found that blebs had developed all around the lower half of the left arm, including the area that was covered with adhesive, so he removed the arm from the suspension apparatus and with the use of a fluoroscope applied a plaster cast. X-ray pictures taken both before and after the cast was applied, indicated that a good alignment of the fragments was obtained.

Within a few days the patient returned to her home and at a subsequent date an X-ray revealed that the fragments of bone had slipped away from their proper position so the cast was removed and further adjustments were made by the doctor. Another cast was applied after such treatment. The doctor continued to care for the case and in three months he found firm union and the patient began to have satisfactory restoration of function. The patient returned to his office for diathermy treatments from time to time and when he decided that her condition was satisfactory he discharged her. Her condition then seemed extremely good considering the type of injury involved.

Shortly thereafter the physician was called as a witness for the patient in a lawsuit which she had instituted against the person who was claimed to be responsible for the original automobile accident. He testified to the nature of the injuries and with respect to the treatment that he had rendered. A fairly substantial verdict was rendered in favor of the patient (plaintiff in the automobile case). Thereafter the doctor instituted an action in the Supreme Court to recover his fee for professional services and a counterclaim charging him

with malpractice, was interposed. As a special defense to the charges of malpractice there was set up in the pleadings the fact that the accident case had resulted in payment of a substantial sum of money to the doctor's patient, upon the theory that the said payment, subsequent to the treatment rendered by the physician, extinguished any possible claim that the patient might have had against him based upon alleged malpractice.

The case came up for trial. It was a non-jury case and in the course of the trial a conference with the presiding judge resulted in a dismissal of the counterclaim and a settlement of the doctor's bill for services.

Failure to Diagnose Dislocation of Wrist

A young married woman consulted a physician engaged in general practice, with respect to complaints of pain in the right wrist. She told the doctor that her car had collided with a hydrant the day before and she had sustained her injuries in such manner.

Examination of the wrist showed that it was swollen but manipulation failed to indicate the presence of any fracture. The doctor diagnosed the condition as a sprain. He applied a splint and directed the patient to apply cold dressings and return to him later on. When she did return, about two weeks later, he removed the splint, examined the wrist, saw the swelling had gone down considerably, and reapplied the splint and advised her to return about two weeks later. On that occasion the wrist was still swollen and a partial splint was reapplied and she was told to return again. When she finally returned, upon removal of the splint the doctor found the patient suffering from a silver-fork deformity of the wrist and he told her it was necessary to have an X-ray taken immediately. She never returned to the doctor for treatment. He later learned that she had gone to another physician and that X-rays had revealed a dislocation of the wrist, which was eventually reduced by open reduction. Approximately two and one-half years after the doctor last saw the patient a mal-

practice action was instituted against him in the Supreme Court, charging him with failure to detect the true nature of the injuries. An application was made to the Court for the purpose of obtaining a dismissal of the complaint on the grounds that this action was barred by the two year statute of limitations, controlling malpractice actions.

The said motion was duly granted and judgment entered dismissing the complaint thereby finally terminating the action brought against the physician.

Incision of Fistula

A man thirty-five years of age consulted a physician who specialized in the treatment of rectal diseases. Upon examination it was found that he was suffering from a left anterior incomplete external fistula which had an external opening but no internal opening. An operation was consented to and under a local anesthetic of

novocaine the doctor incised the fistulous tract, making an inverted T shaped incision. The patient remained in the hospital four days and left in good condition. He returned to the doctor's office periodically for treatments and about six weeks later an infection developed at the site of the incision. The doctor treated the infection, which was slow in clearing, and when he last saw the patient about four months after the operation the wound was almost healed.

An action was brought against the physician, based upon alleged malpractice, and upon the further charge that the defendant had guaranteed to cure within a short period of time.

Shortly before the case was about to be reached for trial the plaintiff's attorney or record died. The patient, himself an attorney, thereupon undertook to negotiate for a settlement of the case and when no offer was made on behalf of the defendant he finally agreed to discontinue the action.

DIAGNOSIS OF INFECTIOUS MONONUCLEOSIS

Infectious mononucleosis occurs chiefly as a sporadic disease of young adults, epidemics are rare. Glandular fever is a similar but probably different disease affecting children, epidemic outbreaks are not infrequent. Typical cases of infectious mononucleosis are characterized by fever, malaise, weakness, vomiting or nausea, enlarged and tender cervical or other groups of lymph nodes. Occasionally lymphadenitis is not observed. Sore throat and abdominal pain frequently occur. A diagnosis is established by the symptoms, a relative increase of large mononuclear cells in the blood—many of which are probably abnormal lymphocytes—and the demonstration of agglutinative properties for sheep red blood cells in the serum of the patient. Since the etiology of the disease is unknown, bacteriological studies are of no assistance except to exclude other infections. Although the acute attack is usually short, convalescence may be prolonged, in some cases extending over a period of several months. In its early stages the disease may be difficult to distinguish from acute lymphatic leukemia, but in the latter the patient's serum does not contain agglutinins for sheep red blood cells. The prognosis is always good.

Laboratory Findings

I Blood Count The blood picture is very

characteristic but not absolutely specific. Usually the total white blood cell count is between 12,000 and 20,000, occasionally there is a leukopenia, more than 50 per cent of the white blood cells are lymphocytes, many of which are of a type not normally found in the peripheral blood.

II Serological Test The blood of most patients with infectious mononucleosis agglutinates sheep red blood cells. From five to ten c.c. of blood should be collected for the test. As is true in other diseases, these serological properties may not be demonstrated until a week or more after onset of symptoms. Also, the titer of the reaction has been found to diminish rapidly following recovery. In a consideration of the significance of agglutinative properties for sheep red blood cells, it should be borne in mind that the blood of patients who have been injected with horse serum or certain other types of protein may also agglutinate sheep erythrocytes. The serum from children with glandular fever usually does not contain agglutinins for sheep red blood cells.

Although the incidence of infectious mononucleosis is relatively low in New York State, the disease is evidently more prevalent than is generally appreciated—Issued by The New York State Association of Public Health Laboratories, Leaflet No 9

Across the Desk

"He that Hath Ears to Hear, Let him Hear"

WHEN MARK ANTONY ASKED his friends, Romans and countrymen to lend him their ears, he may not have realized that the loan, in many cases, would be as bootless as a defaulted bond issue, and that his sweetest notes would go to protest. Strangely enough, we are only finding out in this year of grace 1937 how large a fraction of the population are hearing but imperfectly what their ears were intended to hear "Ears have they, but they hear not"

The investigation that is uncovering this serious state of affairs is beginning at the right spot—in the schools. It is already estimated that 3,000,000 school children have a demonstrable deficiency of hearing, causing a recognized or potential handicap, with unknown millions more among the adult population. Here is not a new field, perhaps, where the medical profession can be of vital help, but certainly a field where the vast extent has never been appreciated, a field to keep both the specialist and the family doctor working overtime.

Get the Picture Right

We shall fail, too, to see the true picture if we merely feel a pang of sorrow over the poor little child who cannot hear the birds sing, the band play, or the radio dispense the humor of Amos 'n' Andy or Pop-Eye the Sailor. The child's plight is far worse than that, especially when the defect is so small that nobody has recognized it. A slight deafness, in fact, carries heavy disadvantages just because it is unrealized. The victim has never known normal hearing, and believes he hears the same as everybody else, while the parents, teachers, and playmates, instead of thinking him deaf, call him "dumb." He only gets credit for stupidity. All the oral instruction, the teacher's questions, the class discussion, are muffled and indistinct. Repeatedly called a fool and blockhead, he finally accepts the description as true, forms a permanent inferiority complex, stops trying to do much or be much, and becomes a human liability, instead of an asset. In an investigation in Omaha, only thirty-seven per cent of the

parents knew their children had a hearing deficiency until advised by the school nurse.

Even when the child's deafness is recognized, an equally deplorable situation is sometimes produced by the defeatist attitude of the family, "the widespread, persistent, cruel fallacy to the effect that when once the ear has begun to deteriorate, treatment is not worth while—this defeatist attitude has caused much needless deafness," as a speaker said at the AMA meeting in June.

Yet few states are doing anything to meet this situation. More than ten years have gone by since the House of Delegates of the AMA in 1926 adopted a resolution endorsing the regular, periodic testing of all school children by scientifically accurate methods. This was followed by similar action by many other national and state medical organizations. It was not until last year, however, that the New York legislature passed a law making the audiometric testing of all school children mandatory. It was also required that all school children in the state having a loss of hearing be reported by the attending physician, nurse, or other person responsible, through the local health officer, to the state health department. This year a law created a temporary commission to study hearing conditions among pre-school and school children.

Spot the Little Defects in Time to Help

The old-fashioned methods of testing the ear have been found inadequate, it seems. What is now used is the audiometer, which will test the hearing of as many as forty pupils at once in a few minutes. This device reveals three or four times as many pupils with hearing defects as were found by the older methods, said Dr. Horace Newhart, of Minneapolis, at the AMA convention in June, while Dr. Claude T. Uren, of Omaha, reports that "about ten times as many children with hearing defects are picked up with this method as were found with less scientific methods." The discov-

ery of the little defects permits treatment before they grow too serious and deep-seated for successful correction. Dr. Uren found that about fifty per cent of the children with impaired hearing needed tonsil and adenoid operations, which might not otherwise have been discovered. In his investigation the children with hearing defects ran from 60 to 140 per 1000, depending upon locality. In Minneapolis, ten years ago, eight per cent of the school children showed hearing defects in the audiometer tests—now it has been reduced to 53 per cent. In Cincinnati, according to Dr. Leo S. Friedman, quoted in the *AMA Journal*, "about 12,000 hearing tests are carried out each year, which reveal about 900 children with hearing defects. Of this number, 500 are referred to private physicians and the remainder to a well organized clinic under the guidance of experienced workers. The latest reports indicate that approximately 52 per cent of these defects have been corrected."

New York City's Huge Investigation of 1,500,000 Ears

By far the largest investigation has been, and still is, going on in New York City as "WPA Project 6065 for the Conservation of Hearing of School Children," under the direction of Daniel Caplin, Assistant Director of Health Education of the city Board of Education. Over 770,000 children have been tested, of whom 30,000 had impairments in both ears, 36,000 had impairments in the right ear, and 34,000 in the left ear. Over 75,000 had active histories of running ears, earaches, etc. In this investigation the pupils are tested in groups of eight to forty with the audiometer, then a second test with the same device is given to all who show a slight deficiency. Those below normal in both tests receive individual tests with the audiometer, which tests hearing acuity for both air and bone conduction in speech and complete tone ranges. A detailed history of health, educational progress, etc., is taken. Investigators and nurses arrange for otological examinations, assist the otologist, and visit the homes to see that his advice is carried out. In addition to the examination by an otologist in the school, the project also calls for referral to private doctors and clinics for

treatment and investigation. An effort is made to have a second otological examination and confirmation for each child. The plan, not only in New York, but in all cities making these inquiries, is to have repeated examinations throughout the school course, so that defects will be discovered in time for early and effective treatment.

How the Little Ears are Helped

Nor is this all. The pupils who hear poorly are, for one thing, given front seats, and the teachers make a special effort to speak clearly and distinctly to them. Then if the loss of hearing is more than twenty decibels in the better ear, they have special instruction in lip-reading, and, if badly deafened, they are put in a special class for the hard of hearing in a residential or day school, temporarily, until their skill in lip reading and voice training permits a return to their old class and school friends. The use of modern individual and group hearing devices is a great help, Dr. Newhart declares, to the child having a loss of hearing of forty decibels or more in the better ear if, on thorough trial, it materially increases his ability to interpret articulate speech. Indeed, he declares, "all children of kindergarten age or older having a defect which can be materially compensated by a hearing device should be given the benefit of such an aid. The use of a hearing device by the child with a handicapping loss of hearing will in the near future probably be as common as is the use of corrective glasses by the child with a visual defect causing an equal handicap."

Dr. Edmund Prince Fowler, in charge of the medical aspects of the survey of the hearing of the New York school children, also recommends mechanical aids when needed, and he adds shrewdly, "It is well to consult a specialist before buying one."

A note in these pages a year or so ago told of the efforts of the British Medical Association against unscrupulous makers of hearing aids who were exploiting the deaf and persuading them to buy devices, regardless of their cause of deafness, which turned out worthless. Hence the insistence by the investigators here on competent medical advice from start to

finish A recent newspaper advertisement in this country proclaimed in large type "DEAFNESS DEADLIER THAN CANCER Cancer means certain death unless caught in time Deafness steadily but surely progresses to the living death—stone deafness—unless caught in time" Comment on such advertising is unnecessary

All the splendid work, going and growing, for the bewildered school-child trying

to live in a half-realized world, makes one only wonder why it was not done long ago It recalls the passage in the Book of Proverbs "The hearing ear, and the seeing eye, the Lord hath made even both of them" If this be so, then is it not true that there is something that partakes of the godlike and divine in restoring these delicate organs, when they are impaired, to the usefulness for which they were intended?

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and the interest to our readers

Tweedy's Practical Obstetrics Revised and largely rewritten by Bethel Solomons, M D and Ninian McIntire Falkner, M D Seventh edition Octavo of 773 pages, illustrated New York, Oxford University Press, 1937 Cloth, \$8.75

This textbook by the late Master of the Rotunda and his assistant, has been planned for the general practitioner It is comprehensive, yet not too full nor discursive It is particularly interesting to specialists as an exposition of the Dublin practice Considerable space is devoted to the newborn infant

Solomons calls wearing of masks a fetish, gauze without cellophane is useless and dangerous Vaginal and rectal examinations are rarely made, external vaginal examinations, in which descent is appreciated by a finger between annus and coccyx with pressure from above, are very valuable Nitrous oxid anesthesia is used very little on account of expense Perineorrhaphy is done with the patient on her side, using number two or three catgut.

Caesarean is rarely performed for accidental hemorrhage, and the low transverse Kerr incision, so popular there, is no longer used for previa, where classical section is preferred, using number four silk for suture

For posterior occiput and breech prolonged expectancy is advised, and forceps on the aftercoming head are not mentioned Kielland forceps are not liked, and, for the most part, pelvic applications of the forceps are thought to be as good as cephalic Pubiotomy and induction of labor in the borderline pelvis are still advocated, and

pelvimetry by Skutsch's pelvimeter is thought to be perfectly satisfactory

CHARLES A GORDON

Textbook of Diagnostic Roentgenology By Lewis J Friedman, M D Quarto of 623 pages, illustrated New York, D Appleton-Century Company, 1937 Cloth, \$10.00

The author has accomplished a Herculean task in covering in an adequate manner the field of Diagnostic Roentgenology in a single volume From fundamental Roentgen physics to the most intricate of diagnostic problems, the reader is carried on through a volume in which each division and chapter bespeaks of careful planning and gathering of material The latter, being accumulated from one of the most prolific sources of pathology in the world, has been beautifully reproduced and labelled In addition, the legend accompanying each reproduction saves the reader much time, as there is no necessity to scan pages of reading matter to grasp the author's thought.

The volume is recommended to the beginner who wishes to actually study it as a text, or to the more experienced as a reference book A perusal of any of the chapters is stimulating, the author enhancing its readability by diction which is comparable to some of the best medical literature the reviewer has ever encountered It is especially recommended to all roentgenologists, and also to our confreres, as the author spares no pains in emphasizing the necessity for closer cooperation from the clinician to procure the most satisfactory Roentgen interpretation

GEORGE W CRAMP

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